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INTRODUCTION

The object of this study is to consider the causes of the movement of labour out of agriculture into other occupations, the problems which arise from it, and the policies which have been adopted to deal with these problems. The movement of labour out of agriculture is nothing new. In the past it was often called the “flight from the land”. This traditional term described both an occupational and a geographical change in the distribution of the population. When labour leaves the land, it usually also moves from the country to the city. The two aspects—the change in employment and the change in place of work and residence—are as a rule inseparable.

Occupational change is, however, the main subject of this study, and stress has been laid chiefly on the economic and social factors which give rise to the migration of agricultural manpower into other employment, as well as on the effects of this movement, particularly on the farm labour force and on farming efficiency. The effects of urban development as such extend beyond the scope of the study, although some reference will be made to such effects when they are relevant to the change in occupations.

Many investigations have dealt with the rural exodus in the past. In the inter-war years, the International Labour Office itself was responsible for some of them. It may therefore seem superfluous to investigate the subject again. One reason for doing so is that in many countries the rate of movement out of agriculture into other occupations is now much higher than it has been at any time in the past. Another reason is that the conditions of movement in the less developed countries differ from those obtaining in the advanced countries, and require investigation for that reason. A review and record of recent movement may be useful, if only because new situations have arisen.

There would also appear to be a need for a new interpretation, or evaluation, of the implications of occupational migration. Economists have frequently emphasised the general benefits which result from it, and have formulated general principles concerning the relationship

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1 The term “labour” as used in this study covers all workers in agriculture, whether they work as farm owners or operators, hired labourers, sharecroppers or members of farm families—in other words, all those whose efforts contribute to agricultural production.
between economic growth and the decline of the labour force in agriculture in relation to the total labour force. The drift from the land, it has even been said, is "basic to the process of civilisation".\(^1\) Sociologists, politicians, and the common man, on the other hand, have been more impressed by its deleterious effects. These may arise, not from the change itself, but from the way in which it takes place. "How" is as important as "why"; and "how"—the short-term change—may be wasteful and harmful, even if "why"—the long-term adjustment—is economic and beneficial.

To strike a balance between these two aspects is difficult; yet it seems necessary to attempt to do justice to both of them. The connection between the movement of labour out of agriculture and economic growth is evident: occupational migration is linked with development and is in fact one of its conditions. Indeed, one of the most serious obstacles to development in many countries is that there are too many people on the land: the evils of too little migration are much greater, as will be seen, than those which are associated with rapid occupational change.

Yet problems in connection with movement undoubtedly arise. It has been well said that "in principle the rural exodus is almost always economically justified; but sometimes it indicates a healthy adaptation and is a benefit to all, whereas in other cases it leads to powerlessness to adapt and involves a heavy negative balance of wealth destroyed or not utilised, from both the human and the material point of view".\(^2\)

The present study aims at presenting a survey of some of these problems as they now arise in different countries.\(^3\) The first chapter provides an international comparison of rates of movement of labour out of agriculture in recent years, as a background to the country analyses which are the main content of the study. This comparison shows that three main groups of countries may be distinguished, according to the rate and circumstances of occupational change, and the five chapters which follow group countries according to this classification. The next chapter discusses the general problem of economic growth and occupational balance and compares the conditions of movement in advanced and in less developed countries from this point of view. Finally, the con-

---


\(^3\) The countries dealt with in detail are the following: Brazil, Canada, Denmark, France, Germany (Federal Republic), India, Iraq, Italy, Japan, the Netherlands, Norway, Pakistan, Sweden, Turkey, the United Kingdom, the United States, Venezuela and Yugoslavia. In addition, a special section deals with the problems of countries and territories in Africa south of the Sahara.
cluding chapter summarises the main points emerging from the international comparisons and the country surveys and sets out their implications for government policy, ranging from comparatively minor measures in the advanced countries to the wider issues of development planning and agrarian reform in the less developed.
CHAPTER I

GENERAL SURVEY

There are two standpoints from which the movement of labour out of agriculture may be considered: its effects on the distribution of the total labour force among different occupations, and its effects on the labour force in agriculture. If labour moves out of agriculture into more productive employment, the result is an increase in the national income and a more economic utilisation of the labour force as a whole. The reduction in the numbers employed in agriculture may lead to greater efficiency in agricultural production and to a more economic use of the agricultural labour force; real incomes in agriculture will then rise, and the standard of living of the farm population will improve. The two aspects are interrelated, but for purposes of analysis it is convenient to distinguish them.

THE CONTRAST BETWEEN ECONOMICALLY ADVANCED AND LESS DEVELOPED COUNTRIES

In the past, investigations of the effects of the rural exodus have been confined almost entirely to the advanced countries, where the occupational shift has been integral to the process of economic development. The movement of labour has represented a necessary adjustment to rising productivity in agriculture itself and in the economy as a whole. The transfer of workers from agriculture into industrial and service occupations has been both a cause and an effect of rising productivity in agriculture. As methods of production have become more efficient, less labour has been needed to produce the same volume of food; and as labour is drawn into other occupations by higher earnings, machinery or other capital equipment is substituted for labour.

As the following chapters will show, the effects of the transfer of manpower have not been the same in all advanced countries. Where the rate of investment in the economy as a whole as well as in agriculture is high, the benefits have been greatest. Where agricultural incomes have fallen in relation to other incomes, without an increase in investment in industry, agricultural workers have tended to move into overcrowded
occupations, e.g. the retail trade, and to reduce incomes in the services sector. In these cases, the transfer of manpower out of agriculture may not result in a general increase of the national income, although it may improve the incomes of those who remain in agriculture.

Moreover, in most advanced countries the transfer of manpower has entailed hardships for the labour displaced by technical progress, particularly in periods of agricultural depression and general unemployment. The transfer has not been a smooth, gradual adjustment, as it may be in periods of full employment and agricultural prosperity. But, as a long-term trend, the change in the distribution of the labour force has represented growing efficiency, and has been one of the means by which higher living standards have been achieved, in the economy as a whole and in agriculture itself.

The present study is concerned with a recent phase in this long-term process of occupational change. It deals mainly with a short period, approximately the last 20 years (1939-59), although some comparisons with earlier periods are made. It includes less developed countries as well as advanced countries, and aims at showing that conditions of movement in these countries differ so widely from those of the advanced countries that some of the generally accepted arguments concerning the benefits of rural-urban migration need qualification.

So far as the less developed countries are concerned, the insufficiency of basic data necessitates a tentative approach to the problem. For the advanced countries, much detailed information is available in official statistics (as, for example, on changes in farm sizes, the composition of the agricultural labour force, and levels of income and productivity in agriculture) which in many underdeveloped countries can be gathered only from estimates and case studies, and even then very inadequately. But since it is in the less developed countries that the problem is most acute, it is clearly important to attempt to review the conditions surrounding it, even though the arguments used must often remain inconclusive. For the advanced countries, the information available would allow of a much fuller treatment than has here been attempted, but in order to correct as far as possible the bias in perspective which results from the greater volume of relevant data, the sections dealing with these countries are abbreviated to a review of salient features.

For in the less developed countries the problems of movement are not only much more acute: they are also of a different order of magnitude, because they are concerned mainly with the wider aspect—the effect of migration on the utilisation of the labour force as a whole. The movement of labour out of agriculture is large enough to affect the employment market in general. Thus, in Asia, Africa and Latin America, these
are now the crucial questions: do workers who leave the land move into more productive occupations, or do they swell the numbers of underemployed workers in the towns and so reduce urban wage levels? Is the rate of movement sufficiently high to prevent increasing pressure on the land and check falling labour productivity? Does alternating movement between agricultural and industrial employment involve wastage of manpower on a large scale? These questions reflect the need for migration as a means of securing a better balance in the occupational structure. Whether it does in fact achieve this result is the main criterion of its benefits.

In the advanced countries, by contrast, some of the more important contemporary problems concern the effects of the utilisation of the labour force remaining in agriculture. In most western European countries, the proportion of the labour force in agriculture is now so small that rural-urban migration has little effect on the employment market, and agricultural workers represent only a minor source of recruitment for expanding industries and services. In the United States and Canada, however, where the rate of decline is much more rapid, the movement is large enough to affect the total volume of employment. By and large, in North America and western Europe, these are questions of importance: is it the least efficient farmers and workers who move into other occupations? Does the increase in part-time farming represent higher efficiency? What will be the effects of an aging farm population? Ought migration to be faster, to enable an increase in farm sizes? These questions reflect the significance of differential rates of migration as between old and young workers, farmers and farm labourers, rich and poor regions, and their effects on the agricultural labour force, rather than the effects of migration on the over-all occupational balance. In some advanced countries, there is reason to believe that agriculture might be more efficient with less manpower; but the need is seen from the agricultural angle, since the change in the distribution of occupations would not be large, even if labour left agriculture much more rapidly than it does at present.

In the following chapters these different problems will be considered as they arise in different countries. The movement of labour out of agriculture represents an adjustment in the distribution of the total labour force which can be evaluated only against a given economic background and in relation to national agricultural policy. Each case is to some extent a special case and requires separate treatment.

Nonetheless, there are certain elements in this occupational change which are common to all countries. Before turning to the investigation of the conditions obtaining in different national settings, it is necessary to give a comparative statistical picture of recent changes in the total
and agricultural labour force in the countries covered by the study. This comparison will serve to explain the contrast in the nature of the problems which arise in advanced and underdeveloped countries. It will also indicate the relevance of the general factors influencing movement.

**Statistical Background**

The tables which follow do not include certain countries and territories which are discussed in the remaining chapters, notably African and Middle Eastern countries, where there is alternating movement on a large scale. Comparable data are not available, and the sections dealing with these countries consequently make use of estimates and case studies. Most of the countries discussed are, however, included.

Figures unfortunately cannot be provided for a uniform period, particularly as regards the less developed countries. For most of these, statistics of occupational distribution are available only for one or two census dates. In order to provide as wide a basis of comparison as possible, the tables include all countries for which comparison at two census dates is possible. In each case the most recent census dates have been used, but since these vary from one country to another, the period covered varies accordingly.

Table 1 shows the size of the total and agricultural labour force in the various countries at two recent dates. The last column shows the relative importance of agriculture in the total labour force, expressed as a percentage figure. The table does not, however, directly show the volume of the occupational movement, i.e. the number of workers leaving agriculture to take up work in other branches of economic activity, because the difference in the agricultural labour force at the two dates is the result not only of net migration from agriculture into other branches of the economy, but also of demographic changes in the agricultural population due to the fact that, for instance, new workers have entered the agricultural labour force and old workers retired or died between the two dates.

1 In the distribution of the labour force by branch of economic activity, especially at recent censuses, most countries have a residual group of persons whose activities are so ill-defined that they cannot properly be allocated to any specific branch. Frequently unemployed persons form a sizable part of this group. The size of the non-allocated group varies from country to country and as between the two dates. In the preparation of both tables 1 and 2, for all countries where this group is separately identified in the statistics at both the dates it has been excluded from the count of the total and agricultural labour force. In all such cases, therefore, the total labour force figure shown falls short of the real count. It will be noted that the procedure adopted results in the same proportion of agriculture in the total labour force as would have been obtained had the ill-defined group been allocated on the basis of the known distribution. The distortions introduced in the tables from this source are therefore probably not serious.
<table>
<thead>
<tr>
<th>Country</th>
<th>Period</th>
<th>Beginning of period</th>
<th>End of period</th>
<th>Beginning of period</th>
<th>End of period</th>
<th>Beginning of period</th>
<th>End of period</th>
<th>Beginning of period</th>
<th>End of period</th>
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</thead>
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<td>17,117</td>
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<td>4,824</td>
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<td>1,706</td>
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<td>632</td>
<td>735</td>
<td>175</td>
<td>136</td>
<td>28</td>
<td>19</td>
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</tbody>
</table>

Source: national census data.

1 Data exclude persons whose industry was not known. 2 Figures rounded to a hundred thousand; 1941 figures relate to the present frontiers of the Indian Union. 3 The census figures for 1936 and 1954 were compiled on a different basis and are therefore not fully comparable (see Chapter III, section on France). 4 Persons aged 10 years and over employed in agriculture and stockbreeding, excluding forestry and fishing. 5 Figures for agricultural labour force include persons engaged in mining and quarrying.

From the agricultural and total labour force figures the volume of net migration can be estimated, provided that data are available on changes in the size and structure (by age and by sex) of the total population and on labour force participation. With the help of these figures, it is possible to calculate what changes would have occurred in the agricultural labour force if there had been no shift into other branches of economic activity.
<table>
<thead>
<tr>
<th>Country</th>
<th>Period</th>
<th>Rate of change</th>
<th>Total labour force</th>
<th>Agricultural labour force</th>
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<td>+ 0.21</td>
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<td></td>
</tr>
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<td>1941-51</td>
<td>+ 1.59</td>
<td>+ 1.49</td>
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<td>Japan</td>
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<td>+ 0.80</td>
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<td>+ 2.35</td>
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<td>Europe:</td>
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<td></td>
</tr>
<tr>
<td>Belgium</td>
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<td>− 0.44</td>
<td>− 2.39</td>
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<td>− 0.08</td>
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<tr>
<td>Finland</td>
<td>1940-50</td>
<td>− 0.17</td>
<td>+ 2.35</td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>1936-54</td>
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<td>− 1.71</td>
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<td>− 0.34</td>
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<td>1930-47</td>
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<td>+ 0.86</td>
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<td>Sweden</td>
<td>1940-50</td>
<td>+ 0.39</td>
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<td></td>
</tr>
<tr>
<td>Brazil</td>
<td>1940-50</td>
<td>+ 1.49</td>
<td>+ 0.45</td>
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<tr>
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<td>+ 0.56</td>
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<tr>
<td>Mexico</td>
<td>1940-50</td>
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<td>+ 2.33</td>
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<td>+ 1.15</td>
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</tr>
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<td>Canada</td>
<td>1941-51</td>
<td>+ 1.45</td>
<td>− 1.96</td>
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<tr>
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<td>1940-50</td>
<td>+ 1.56</td>
<td>− 2.37</td>
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<td>Oceania:</td>
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</tr>
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<td>Australia</td>
<td>1933-54</td>
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<td>− 0.79</td>
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<tr>
<td>New Zealand</td>
<td>1936-51</td>
<td>+ 1.01</td>
<td>− 1.67</td>
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</tr>
</tbody>
</table>

Source: national census data.

The difference between the increase or decrease estimated on this basis and the actual increase or decrease will show the volume of migration during the period. Estimates of this type present certain difficulties and are not generally available. The United States and Canada are the only countries which publish statistics on the volume and rate of migration of the farm population. For other countries, the data in table 1 help to throw light on the extent of the occupational shift, assuming that demographic factors affect the agricultural and non-agricultural labour force equally. Where the share of the agricultural labour force declines sharply as, for example, in the United States, Sweden and Venezuela, a high rate of movement can be assumed. Where it declines slowly as, for example, in India or Japan, the rate of movement is low.
Table 2 provides a more direct measure of the rate of movement. It shows the annual rates of increase or decrease for the total and agricultural labour force of the various countries over the periods for which the data are shown in table 1. Again on the assumption that the normal increase or decrease in the labour force due to demographic factors is uniformly spread over agriculture and other branches of economic activity\(^1\), the rate of movement is the difference between the rate of change in the total labour force and that in the agricultural labour force. The greater the difference between the two rates, the higher the rate of movement, and vice versa.

**Significance of the Statistics and Relative Importance of the Factors**

From tables 1 and 2 it is evident that the movement out of agriculture is a general phenomenon. Labour is leaving the land in all countries. Everywhere the share of agriculture in the total labour force is declining. It is also evident that there are great variations in the rate of movement. In some countries the share of agriculture in the total labour force declines sharply, and the rate of movement is high, while in others the share remains almost unchanged, and the rate is low. Finally, there are great differences in the scale of the movement. Where the agricultural labour force accounts for only a small share of the total, as in the advanced countries, a further decline represents only a minor occupational shift in the total labour force; but in some of the less developed countries, where the agricultural labour force represents a large share of the total, a rapid relative decline represents a major shift in the occupational distribution of the labour force. By and large, two main contrasts emerge from the tables and serve to explain why problems differ in different settings.

The first contrast is between the advanced and the less developed countries. In the latter the numbers employed in agriculture continue to increase, and migration causes a decline of the agricultural labour force only in relation to the total labour force. In the former, the agricultural labour force declines absolutely, as well as in relation to the total.

\(^1\) This assumption is not always realistic. In many countries, for example, the rural population increases through natural growth more rapidly than the urban population. In this case, the rate of movement out of agriculture will be higher than the difference between the rate of change in the total labour force and that in the agricultural labour force. But for purposes of international comparison, the use of the assumption is convenient, to indicate the orders of the rates of movement.
An absolute decline in the size of the agricultural labour force has been proceeding in the advanced countries for varying periods: for a century in France and the United Kingdom, since 1880 in Sweden, since 1910 in the United States, from the 1930s in Australia, Canada, Denmark, Germany, New Zealand and Norway, and since 1947 in the Netherlands. But in the last ten or 20 years the decline has greatly accelerated. Within this group of countries the rate of occupational change has been highest in Australia, Canada and the United States, where the total labour force grows by 1.5 per cent. or more each year; in New Zealand, with a slower increase in the total but a very rapid decline in the agricultural labour force; and in Sweden, with a slow over-all increase, but again a very rapid fall in the agricultural labour force. In most western European countries the total labour force grows by less than 1 per cent. per year and the agricultural labour force generally declines by less than 1 per cent. (although during the Second World War the agricultural population increased in several of them). In all these countries the decrease since the pre-war period has been more rapid than at any time in the past, as will be seen in the country sections included in the following chapters.

At the same time, government policy towards agriculture aims at maintaining farm incomes at certain standard levels. Farmers receive a considerable measure of price or income support through guaranteed prices, import restrictions or direct grants and subsidies. Farm incomes are much higher in relation to other incomes than they were in the inter-war years—although, except in one or two countries, they are not as high as incomes in other economic sectors.

In this context, differential rates of movement—i.e., as between old and young workers, farmers and farm labourers, and rich and poor regions—acquire fresh significance. With a declining labour force, the need for making the most of agricultural skill and experience becomes greater. Moreover, care must be taken to ensure that public funds do not maintain too large a number of farmers, for the very rapid recent decline in manpower affects mainly hired labourers and members of farmers’ families rather than the farmers themselves. Finally, rapidly increasing labour productivity in agriculture is a feature common to all of these countries—albeit in varying degree—and it is generally accompanied by growing disparities between rich and poor regions or sections of the farming community.

The second main contrast which appears from tables 1 and 2 lies between two groups of less developed countries—those with high rates of movement and those with low rates. The first group includes, for example, Brazil and Venezuela, where high rates of movement are
indicated by the relative annual increase in the total and in the agricultural labour force, the respective figures being 1.5 and 0.45 per cent. for Brazil from 1940 to 1950, and 3.5 as against 1 per cent. for Venezuela from 1941 to 1950. Within the decade, Venezuela has ceased to be mainly agricultural, while in Brazil this position may soon be achieved. The occupational shift is large in relation to the total labour force. In these countries one of the main questions is the effect of migration on urban wages and employment. The rate of urbanisation exceeds the rate of industrialisation, and the services sector grows more rapidly than the national income.

The second group includes, among others, India, Japan, and Thailand. In these countries the total labour force increases less rapidly than in Latin American countries—i.e., at annual rates ranging from 1 to 2.5 per cent. only—but the agricultural labour force increases almost as rapidly as the total. In India numbers occupied in agriculture increased by 14 million between 1941 and 1951. In these countries land areas are already congested, and there is much underemployment and unemployment in agriculture. Yet agricultural distress does not give rise to a sufficiently high rate of movement to relieve growing pressure on the land. Viewed from the international angle, rates of movement are lowest where levels of labour productivity in agriculture are lowest, and where a higher rate of migration is most needed.

Thus the significance of the movement out of agriculture varies. In the advanced countries recent changes represent later stages in a long process. In some Latin American countries they represent major occupational shifts, but in India and Japan their effect is insignificant. There is an obvious relationship between rates of occupational movement and economic development, which may be clarified by considering the main causes of the former.

**The Main Causes of the Movement out of Agriculture**

If people are asked to explain why they have left agriculture, they usually give a variety of reasons. Several direct investigations have been made in different countries in recent years and are quoted in the following chapters. The reasons actually given include better pay, shorter hours, better educational and transport facilities, mechanisation, the impossibility of supporting a family on a very small holding, the dif-

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1 It may seem surprising, at first sight, that Japan should be included among the less developed countries. However, as explained at the beginning of Chapter II below, the grouping used in this study is based on the type and rate of change in the agricultural labour force, and not on more conventional criteria such as income per inhabitant or occupational structure.
ficulty of rising in the social scale or of gaining access to ownership, or simply the shortage of rural housing.

To list all these various reasons as separate factors determining movement in different conditions tends to obscure the importance of the two main factors which are common to all countries and within which it is possible to include most of these reasons for migration. These two main factors are, first, the level of relative incomes and, secondly, the opportunities for non-agricultural employment.

Men and women leave agriculture, as they leave other occupations, because they can get better jobs elsewhere. “Better jobs” means primarily better pay; it usually also means shorter and more regular hours. It may also mean better conditions of work, greater security, better housing, or more social amenities. Differences in real incomes between agriculture and other occupations are affected not only by the difference in earnings but also by these other conditions.

Thus the difference in “net advantages” between agriculture and other sectors of the economy is the main reason why people wish to leave the former. But the rate at which they can do so is determined by the opportunities for employment in other sectors.

**Relative Incomes.**

In almost all countries incomes in agriculture are lower than in other branches of the economy and tend to fall in relation to other incomes. The reasons include the tendency for agricultural production to increase more rapidly than the aggregate demand for food, a tendency observed chiefly in the advanced countries. In the less developed countries other factors generally operate to cause agricultural incomes to fall in relation to other incomes, such as declining output per head in agriculture, or increasing investment in the non-agricultural sector.

Income differences are discussed in the sections dealing with each country, and some of the problems of measuring income parity are discussed in Chapter V on the basis of sector product comparisons. Here it will suffice to note that it is difficult to show a direct relationship between disparities in average incomes in different sectors and the rate of occupational movement. International comparison discloses that rates of movement do not vary directly with average income disparities in different countries. One reason is that the difference between average incomes in agriculture and other occupations insufficiently reflects the income disparities which give rise to movement. Another is the preponderant influence exercised by the volume of employment on the rate of movement.
In the advanced countries, the main elements in migration are hired labourers and members of farmers’ families. In western European countries, farm operators show a high degree of immobility as compared with these groups. In the United States and Canada the latter are a more important element in migration, although here too they are relatively less mobile than other groups.

As regards the less developed countries, little is known about the social and economic status of those who leave the land; but from case studies it is evident that hired workers are an important element. Tenant farmers, sharecroppers and, in some cases, the poorest peasant proprietors also migrate. Social status is less clearly definable. But there is evidence in Japan and India to show that farm owners and occupiers with secure tenure are less mobile than the insecure and landless.

Farmers are generally less likely to be induced to change their occupation than farm labourers or members of farmers’ families by a given income disparity. There are several reasons for this. One is that they like farming; another reason is they cannot so easily find employment in a comparable occupation in industry or commerce. The farmer’s income comprises the earnings of capital and management, and usually also the earnings of his own labour and that of his family. Even if the return on each of these factors separately is lower than in other occupations, farmers may nonetheless prefer to remain in agriculture because they cannot transfer their labour, capital and experience jointly into industrial and commercial enterprise. These sectors call for different kinds of managerial ability, and the average scale of enterprise often precludes efficient operation by small units. Farmers are thus to some extent a “specific factor”, i.e. they supply their productive services more efficiently in their own occupation.

Various estimates have been made of the extent of the income disparity which will cause farmers to change their occupations. On the basis of a survey of conditions in advanced countries, it has been suggested that farmers will be induced to offer their productive services if the “incentive income” ratio between agriculture and industry is 60 per cent. or less; that is to say, they regard the difference of 40 per cent. as a measure of the disadvantage of moving to industry.¹ There is, however, considerable variation between conditions in different countries, as the following chapters will show.

¹ See J. R. BELLERBY: Agriculture and Industry Relative Income (London, Macmillan and Co. Ltd., 1956), pp. 16 and 43 ff. The farmer’s “incentive income” is defined as net farm income less agricultural net rent, interest, wages and salaries of farm employees and other personnel; it represents the return on his effort and enterprise. The “incentive-income ratio” relates the farmer’s incentive income to the corresponding figure for all persons actively engaged in non-agricultural enterprise.
Hired labourers, on the other hand, leave agriculture in western European countries when rates of earnings in agriculture are as high as 75 to 80 per cent. of the level of wages in other occupations. Wage disparities are, however, generally much greater than this, as will be seen further on. In recent years the disparity between wages in agriculture and manufacturing has widened in most of the countries for which comparable data are available. This deterioration of the relative wage level in agriculture may be regarded as the major factor influencing occupational change among hired workers, and probably also among members of farm families.

In the less developed countries comparisons of average wage rates have little significance. In India it appears that the poorest sections of the farm population are prepared to accept casual urban employment at levels of earnings much below the average earnings of urban unskilled workers.

Differences in age will also influence occupational change, with a clear preponderance of young adult workers. Moreover, in several countries the rate of movement differs according to sex.

Thus the income disparities which influence movement are different for different groups; in other words, for a given disparity the rate of mobility will vary according to status, age, sex and other conditions. The following chapters contain detailed data concerning such disparities in the various countries.

Opportunities for Non-Agricultural Employment.

Expansion of employment in the non-agricultural sectors of the economy is clearly the main explanation of the greater rapidity of movement out of agriculture in the advanced countries in the last 20 years. Since the Second World War farm incomes and wages have risen in relation to incomes and wages in other occupations, and are much less unfavourable than they were during the depression of the 1930s; yet the rate of movement is much higher. The effect of expanding employment is most noticeable in the United States and Canada, but is evident in all western European countries also.

Of course, mechanisation in agriculture has also tended to reduce the volume of agricultural employment, both in North America and in western Europe. Farm profits have been invested in farm machinery, so that less labour is required. On the extent to which farm mechanisation has been a cause or an effect of movement, generalisation is extremely difficult, as will be seen later on.

The importance of the expansion of employment opportunities as a factor influencing rates of movement is also disclosed by a comparison
between such rates in the less developed countries. In the countries with rapid rates of occupational change, such as Brazil and Venezuela, employment in the urban sectors of the economy has grown rapidly as a result of heavy foreign investment concentrated in mining and industry. Such investment tends to remain localised in the urban sectors, where the increase in purchasing power is preponderantly concentrated, and does not exert much influence on agriculture, unless government policy directly stimulates capital construction through irrigation projects and the like. Levels of land and labour productivity are generally low. Agricultural distress is therefore a determinant of movement. But in other countries belonging to the less developed group, agricultural distress is no less prevalent, and land areas are much more congested. Yet if the volume of non-agricultural employment does not increase the rate of movement will remain low, as is shown by the review of conditions in Asian countries in Chapter V.

Thus the decisive factor appears to be the rate of investment in the urban sectors. While a low relative income level in agriculture, and particularly the low relative level of wages, is the main permanent long-term factor causing a shift into other occupations, the rate of the movement at any given time is also determined by the increase or decrease in the volume of employment. If relative incomes become more unfavourable to agriculture in a period of industrial unemployment, the rate of movement will not increase because migrants cannot find work. In a period of full employment, on the other hand, the rate of movement out of agriculture will rise, even if the relative economic position of agriculture improves.

"Push" and "Pull" Factors

The relationship between incomes and employment may be clarified by the convenient distinction between "push" and "pull" factors influencing movement. An improvement in incomes and employment opportunities outside agriculture may be regarded as strengthening the "pull" factors, while deterioration in employment opportunities and incomes in agriculture represents a strengthening of the "push" factors.

In addition to these main determinants, social conditions also act as push factors. Hired workers in agriculture suffer from various disadvantages as compared with workers in other occupations. Rural communities also suffer from disadvantages as compared with urban communities. In part, these disadvantages influence relative real income levels and reinforce low earnings as a push factor. In part, they represent social drawbacks of a more imponderable nature.
The following chapters deal with the problems of movement arising in a number of countries grouped according to the classifications which emerge from this international comparison. These are (a) advanced industrialised countries, in which the movement of labour out of agriculture has become much faster in the period since the Second World War, and in which the reduction of the labour force in agriculture has recently proceeded at much higher rates than in any period in the past (Chapters II, III and IV); (b) agriculturally overpopulated countries, in some of which the rates of movement are low, and where the labour force in agriculture continues to increase almost as rapidly as the total labour force (Chapter V); and (c) less developed countries in course of rapid development, where movement from agriculture into other occupations is proceeding at high rates, though the agricultural labour force continues to increase; this group also includes a number of countries in which migration between agriculture and other occupations takes the form of an alternating movement (Chapter VI).

Within each group, the relative strength of the various factors seems broadly similar. Between the groups, the distinction between “push” and “pull” factors serves to point up the contrast in the basic conditions of movement. In the first group, the pull factor of expanding employment outside agriculture now predominates, though the push of contracting employment resulting from farm mechanisation also exerts some influence. In the second group, the push factor of agricultural distress is extremely strong, but the pull of expanding employment in most cases is weak or entirely absent. In the third group, the pull of expanding employment and the push of agricultural distress operate together, giving rise either to rapid migration or to chronic oscillation between rural and urban employment, owing to special economic and social conditions which exert a pull back into agriculture.
CHAPTER II

ECONOMICALLY ADVANCED COUNTRIES:
NORTH AMERICA

This chapter and the following one review the movement of labour out of agriculture in some of the countries where the agricultural labour force is decreasing. In most of these countries less than a quarter of the total labour force is now engaged in agriculture, as a result of long periods of relative—and varying periods of absolute—decline in the size of the agricultural labour force.

Most of the countries included belong to the group which is now commonly described as "advanced"—a term which is conventionally understood to refer to the United States, Canada, Australia and New Zealand, and the countries of western Europe. The countries of southern Europe are not generally included in this category, but since the grouping used in this study is based on the type and rate of change in the agricultural labour force, and not on income per inhabitant or occupational structure, Italy has been included among the advanced countries because the agricultural labour force as a whole is decreasing (although it is increasing in the south, where employment problems resemble those of the less developed countries).

Each of the following sections dealing with individual countries reviews the long-term trends, and more recent changes, in the size and composition of the agricultural labour force; the main causes of the movement and some of their effects; the problems which arise, and the policies which have been adopted to deal with them. Treatment on a country basis is necessitated by differences in national conditions, in the statistical material available and in the policies adopted.

Before turning to the country surveys, however, one salient contrast between North America and western Europe may be noted. In North America farm operators move out of agriculture almost as fast as the rest of the farm population, while in western Europe the movement is confined almost entirely to hired workers and members of farm families. The higher rate of mobility among farmers in North America results not only from differences in types of farming but from the process of agricultural expansion characteristic of that region.
Large-scale mechanised extensive grain growing, the farming system typical of the prairie regions, has very low labour requirements per acre in comparison with small-scale intensive mixed farming as practised in western Europe.\(^1\) So long as the prairie regions were coming into production, the movement of labour into agriculture continued; in the western provinces of Canada settlement in new lands was still continuing as late as the 1930s. Possession of farm machinery was an essential condition for bringing these new lands into cultivation. As a result, farmers with capital went into agriculture; output increased rapidly and levels of labour productivity from the start were high, by comparison with western Europe. Moreover, both in the United States and in Canada agricultural exports played a decisive role in economic expansion. Capital and labour therefore moved in and out of agriculture to a great extent in response to changes in the world market situation.

For these reasons farmers in the United States and Canada have been and still are more mobile than in western Europe. Farming is a business, subject to business gains and losses, while in western Europe it is still a traditional occupation, with generations of attachment to the family holding. In western Europe, labour originates in farm families, as a rule in excess of the requirements of the farm, and it moves in search of other work at rates varying with the opportunities for non-agricultural employment. The same is, of course, true of the movement of hired labour and family members, as distinct from farm operators, in North America.

Since the Second World War the position of agriculture in the United States and Canada has been stable and prosperous by comparison with the interwar years. In both countries, state assistance to agriculture is now granted on a much larger scale and farm incomes are much higher in relation to other incomes than they were during the pre-war farm depression. The fact that farmers have left farming almost as rapidly as other groups during the recent period of prosperity is presumably due in part to the opportunities of earning bigger profits in other occupations. This motive for occupational change plays little part in western Europe, where farmers are to a much greater extent a "specific factor", i.e. they supply their capital, labour and skill most efficiently in a specialised occupation. Nonetheless, local problems of immobility among low income farmers arise in both the United States and Canada, and for much the same reasons as they arise in western Europe.

\(^1\) In both continents, of course, there are regional specialisations with different labour requirements per acre as, for example, dairy farming, fruit and vegetable growing and, in the United States, cotton and tobacco cultivation; the comparison here, however, is between the types of farming most characteristic of each continent.
United States

Most United States studies of the migration of farm people take as a basis the farm population, which comprises all people living on farms, regardless of their occupation. In view of the large amount of material based on these figures, it may be useful to begin by analysing them.

Farm Population Trends

Table 3 illustrates total and farm population trends from 1910 to 1957

<table>
<thead>
<tr>
<th>Year</th>
<th>Total population</th>
<th>Farm population</th>
<th>Farm population as percentage of total population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1910</td>
<td>91,885</td>
<td>32,077</td>
<td>34.9</td>
</tr>
<tr>
<td>1920</td>
<td>106,089</td>
<td>31,974</td>
<td>30.1</td>
</tr>
<tr>
<td>1930</td>
<td>122,775</td>
<td>30,529</td>
<td>24.9</td>
</tr>
<tr>
<td>1940</td>
<td>131,820</td>
<td>30,547</td>
<td>23.2</td>
</tr>
<tr>
<td>1950</td>
<td>151,132</td>
<td>25,058</td>
<td>16.6</td>
</tr>
<tr>
<td>1956</td>
<td>167,498</td>
<td>22,257</td>
<td>13.3</td>
</tr>
<tr>
<td>1957</td>
<td>170,510</td>
<td>20,396</td>
<td>11.9</td>
</tr>
</tbody>
</table>


The figures show that although the total population has risen steadily, and has indeed increased at a higher rate in recent years, the farm population was at its highest towards the beginning of the period (actually in 1916) and since then has decreased almost continuously; this trend was reversed only during the period immediately following the First World War, at the height of the depression in the early thirties, and again immediately after the Second World War, when slight increases occurred. Between the wars the size of the farm population remained almost constant. Since 1940 the decrease has been rapid, amounting to a reduction of 31 per cent. up to 1957; and recently it has been even more rapid, nearly 5 million people (or 19 per cent.) having left farms between 1950 and 1957.

The decline in the farm population has affected all areas of the United States except the West Coast—the last of the “new frontiers”—(and especially California), but has been particularly heavy in the South. On a state basis, the decline has been most marked in the west central states, roughly corresponding to the “dust bowl”, or high-risk farming areas, and in the states of Georgia and South Carolina in the South.
Between 1920 and 1950 the state of Oklahoma lost 43.2 per cent. of its farm population and Texas 40.1 per cent. The decline for the country as a whole is illustrated by table 4 in terms of the net migration of farm population away from farms during each of these three decades.

**TABLE 4. UNITED STATES: NET MOVEMENT OF FARM POPULATION AWAY FROM FARMS, 1920-50**

<table>
<thead>
<tr>
<th>Period</th>
<th>Movement in millions</th>
<th>Percentage of farm population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1920-30</td>
<td>6.1</td>
<td>19%</td>
</tr>
<tr>
<td>1930-40</td>
<td>3.5</td>
<td>13%</td>
</tr>
<tr>
<td>1940-50</td>
<td>8.6</td>
<td>31%</td>
</tr>
</tbody>
</table>


These figures show how rapid the rate of migration has been since 1940. The actual net loss of farm population from 1940 to 1950 was 9.4 million, including persons who moved to non-farm employment without changing their residence. Since 1940 about a million persons have left farming every year. As already mentioned, the heaviest movement has been from the southern states. The rate of migration was 36 per cent. for the South as a whole, and over 40 per cent. for Oklahoma, Texas, Louisiana and Arizona. In one area of Oklahoma the rate was 57 per cent. The volume of migration, in absolute terms, has been about the same for males and females, but the rate has been slightly higher for females, except in the 15 to 35 age group.

As concerns age, the rate for young adults was highest in all three periods; next came people in the over-60 age groups. With regard to race, the rate for non-whites was higher than that for whites, particularly among the very young and in the 20 to 50 age groups. Young adults are therefore the main element in migration. Conversely, the proportion of the very young and of the aged in the farm population tends to increase.

There is no certain evidence that migration of the farm population in the United States is selective in respect of intelligence or native ability. Some studies have shown that there is a relationship between mobility and intelligence, while others have shown the contrary. Experts refrain from pointing to a definite trend. There is, however, sufficient evidence to show that the movement is selective as concerns education, i.e. that the better-educated elements are also the more mobile.
Agricultural Labour Force Trends

Table 5 shows changes in the agricultural labour force, in which the same trends are observable: an increase in numbers up to the First World War; a 20 per cent. drop between the wars, when the farm population declined much less than the agricultural labour force because unemployed urban workers returned to the farm; and a 33 per cent. drop between 1940 and 1957. Between 1900 and 1957 the total labour force has more than doubled, while the labour force in agriculture has fallen by nearly one-half.

**TABLE 5. UNITED STATES: TOTAL AND AGRICULTURAL LABOUR FORCE, 1880-1957**

(Thousands)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Agricultural</th>
<th>Agricultural as percentage of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1880</td>
<td>17,392</td>
<td>8,682</td>
<td>50.0</td>
</tr>
<tr>
<td>1890</td>
<td>23,318</td>
<td>10,121</td>
<td>43.0</td>
</tr>
<tr>
<td>1900</td>
<td>29,073</td>
<td>11,122</td>
<td>38.0</td>
</tr>
<tr>
<td>1910</td>
<td>37,371</td>
<td>11,834</td>
<td>32.0</td>
</tr>
<tr>
<td>1920</td>
<td>42,434</td>
<td>11,719</td>
<td>28.0</td>
</tr>
<tr>
<td>1930</td>
<td>47,492</td>
<td>10,753</td>
<td>23.0</td>
</tr>
<tr>
<td>1940</td>
<td>50,074</td>
<td>9,317</td>
<td>19.0</td>
</tr>
<tr>
<td>1950</td>
<td>58,442</td>
<td>7,331</td>
<td>13.0</td>
</tr>
<tr>
<td>1957</td>
<td>65,011</td>
<td>6,220</td>
<td>9.6</td>
</tr>
</tbody>
</table>


Farm Employment.

The statistics on farm employment published by the Agricultural Marketing Service of the United States Department of Agriculture give figures for total workers, family workers and hired workers (see table 6).1 Broadly speaking, the trend has been similar to the trends in farm population and agricultural labour force, total employment and the number of hired workers having reached their peak in 1916. As regards family workers, however, the peak was reached somewhat earlier. The

1 This series differs from the figures used in tables 1 and 2 in the preceding chapter in that it is based on information supplied by a sample of farm employers regarding the number of persons working on their farms during a given week, regardless of what other occupations they might have. Monthly labour force estimates, on the other hand, are obtained through interviews of a national sample of households, the person interviewed reporting on the labour force status of each member of the household 14 years of age and over. Major differences between the two series are therefore that (a) the Agricultural Marketing Service series may include children under 14 years of age who work more than 15 hours a week on the farm; (b) persons who work on more than one farm may be counted twice in the A.M.S. series; and (c) persons who work in both agriculture and non-farm jobs will be included as farm workers in the A.M.S. series but as non-farm workers in the labour force estimates if they work longer at a non-agricultural job.
rate of decline for hired workers from 1930 to 1950 was somewhat higher than for family workers or total farm employment, but has been very slightly lower since 1950. The composition of the labour force has remained constant throughout the period, with family workers representing about three-fourths of total employment, and hired workers one-fourth.

### Table 6. United States: Farm Employment Trends, 1910-56

(Millions)

| Year | Total workers | | Family workers | | Hired workers |
|------|---------------|----------------|----------------|----------------|
|      | Absolute numbers | Change | Absolute numbers | Change | Absolute numbers | Change |
| 1910 | 13.6 | — | 10.2 | — | 3.4 | — |
| 1920 | 13.4 | -0.2 | 10.0 | -0.2 | 3.4 | 0 |
| 1930 | 12.5 | -0.9 | 9.3 | -0.7 | 3.2 | -0.2 |
| 1940 | 11.0 | -1.5 | 8.3 | -1.0 | 2.7 | -0.5 |
| 1950 | 9.3 | -1.7 | 7.3 | -1.0 | 2.1 | -0.6 |
| 1956 | 7.9 | -1.4 | 6.0 | -1.3 | 1.8 | -0.3 |

Source: United States Department of Agriculture, Agricultural Marketing Service Farm Employment Series.

It is only the larger farms which employ hired labour. According to the 1950 census of agriculture, in April 1950 only one out of eight farms employed hired workers, and on one-fourth of all farms less than $200 was spent on such workers during the year. In contrast, about 5 per cent. of the farms employed over 70 per cent. of all hired workers. During the same year, one-third of all hired workers and 39 per cent. of those who worked for more than 150 days were employed on farms over 500 acres in size, although these make up only some 5 per cent. of all farms in the United States. These large farms also employed regular workers (i.e., those working more than 150 days per year) in the proportion of three to one over seasonal workers, whereas farms under 100 acres in size used about as many seasonal as regular workers.

Included in the numbers of hired workers are migratory workers, both domestic and foreign (the latter, however, including only persons entering the United States legally for seasonal work and excluding the illegal Mexican entrants or "wetbacks"). In 1950 it was estimated that migrant workers totalled about 1 million, of whom one-half were domestic, the other half consisting of some 100,000 foreign workers under contract and possibly as many as 400,000 illegal Mexican immigrants. It is estimated that migratory workers altogether account for less than 5 per cent. of the total man-days in farming and are employed
principally on 125,000 farms representing some 2 per cent. of the total number of farms and accounting for less than one-tenth of total farm output. However, they are a necessary element in the labour force, for although field operations are highly mechanised, no satisfactory way has yet been found of mechanising the harvest of all fruit and vegetable crops, nor all cultivation practices.

Part-Time Farming.

There has been a great increase in part-time farming. In the past 25 years the number of farmers working off their farms for 100 days or more during the year has about doubled, while there has been a significant decrease in the total number of farms. In 1950 off-farm income averaged $1,300 per year for all commercial farm operators and considerably more for farmers who regularly do non-farm work. Since 1949 there has been a more rapid increase in off-farm income, particularly among small and medium-sized farms. At the same time there has been a marked decline in the number of small part-time and residential farmers. In 1955 total off-farm income of farm families was about $8,000 million, and was at least two-thirds as large as the total net income from agriculture.

A recent survey showed that multiple job-holding is more common in agriculture than in any other major occupational group. One out of 11 farm labourers and one out of 12 farmers held a second job during the survey week (in July 1958).

Factors Determining Migration Rates

It is difficult to show that "push" factors in general have been of primary importance in the decrease in the labour force in United States agriculture, except for the higher birth rate among farm families. Historically this was undoubtedly a major factor, agriculture normally having been able to send its surplus population to industry. Indeed, from 1940 to 1954 about one-half of the expansion in the non-agricultural labour force was due to out-migration of the farm population. In recent years, however, birth rates on commercial farms have not been higher than


those in urban areas. Subsistence and low income farmers and the non-
farm rural population now have the highest birth rates.

Lack of amenities in rural areas, at least in commercial farming areas,
cannot be considered as a major cause of migration. With the spread
of electricity to rural areas, the use of the automobile and the building
of all-weather roads, most farm homes have all the facilities of urban
houses as regards modern appliances, and physical isolation is no longer
a drawback. The disadvantage of less adequate educational facilities no
longer operates in many areas by reason of consolidation of schools
and the school bus service. However, the low income farming areas
have changed little over the years; in these areas the rural population
still lacks many amenities, and this encourages people to move to urban
employment.

Relative Incomes.

Rates of migration and variations in relative earnings in farm and
non-farm employment in the United States are less directly related than
might be supposed. In spite of the common assumption that higher
earnings are a major factor inducing farm people to take other jobs,
it has been shown that between 1920 and 1954 migration from farms
has not in fact always increased when incomes in agriculture were
relatively lowest.\(^1\) Conversely, it has been pointed out that “the remark­
able migration out of agriculture since 1940 took place even as farm
prices rose—as farm prices doubled and the income of agriculture per
person virtually trebled”.\(^2\) Some studies have further shown that
migration rates within a state or area may be higher in high farm income
areas than in low farm income areas.

At the same time there is some evidence that the rate of migration
has been highest from low farm income areas, as the following net
migration rate figures for the period 1940-50 disclose:

<table>
<thead>
<tr>
<th>Area</th>
<th>Rate (^{1})</th>
</tr>
</thead>
<tbody>
<tr>
<td>All farming areas</td>
<td>30.9</td>
</tr>
<tr>
<td>Medium and high income farms</td>
<td>28.0</td>
</tr>
<tr>
<td>Low income farming areas</td>
<td>33.8</td>
</tr>
<tr>
<td>Serious low income farming areas</td>
<td>36.9</td>
</tr>
</tbody>
</table>


1 Change due to migration expressed as a percentage of farm population alive at both beginning and
end of decade. \(^{1}\) As delineated in Development of Agriculture’s Human Resources—A Report on Problems
of Low Income Farmers (Washington, U.S. Department of Agriculture, 1955). The areas are those where
(a) the residential farm income to operator and family labour in 1949 was less than $1,000; or (b) the
level of living index is in the lowest fifth of the nation; or (c) low production farms (those with sales of
less than $2,500, the operator working off the farm less than 100 days, and farm sales exceeding non-
farm family income) comprise 50 per cent. or more of all commercial farms. \(^{2}\) Areas where all three of
the aforementioned criteria apply.

\(^{1}\) C. E. BISHOP: “The Mobility of Farm Labor”, in Policy for Commercial Agri-
\(^{2}\) T. W. SCHULTZ: Agriculture in an Unstable Economy (New York, McGraw-Hill,
1945), p. 91.
The effect of migration on relative incomes in agriculture and industry cannot be assessed. A recent official estimate puts agricultural income per head at 45 per cent. of the non-farm average. One authority considers that incomes per head in agriculture must reach 65 to 70 per cent. of those in non-farming occupations if real labour returns in agriculture are to be equal to what workers of comparable skill and capacity receive in the rest of the economy. In other words, rapid as migration has been, technology and labour productivity have been moving much faster and labour has been damming up in agriculture, especially in the South and other areas with poor resources. One authority estimates that, out of the total agricultural labour force freed by technical improvements between 1940 and 1955, some 20 per cent. of the 1940 total agricultural labour force remained in agriculture.

**Opportunities for Non-Farm Employment.**

The main determinant of the rate of migration is the opportunity for stable and remunerative non-farm employment. The volume of migration increases during periods of full economic activity (exceptions being post-war years when soldiers—as under the veterans' settlement schemes—and some war workers return to the farms) but decreases (or the movement may even be reversed) during periods of depression, as in the thirties. In each of the post-war peak activity years—1952 and 1956—2 million people or more left agriculture; during the 1954 slowdown the volume of migration was very small; and in 1957 there was no outward movement at all owing to the recession.

This is confirmed by regional variations. In Tennessee, for example, migration from farms is heaviest in high income farm areas which are the most industrialised and where non-farm employment opportunities are best, whereas the low income areas are economically and culturally isolated. In certain areas of the Middle West, on the other hand, migration is slow largely because there are no non-agricultural employment outlets. As for inter-regional migration, it—

... has never been sufficient to equalise the ratio of men to natural resources. Migration from Southern farms has mitigated but not eradicated the damming up of people on Southern farms, raising supply and lowering wages. However, such migration has undoubtedly prevented the existence of even larger wage differentials between the several states.  

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If we reverse the approach, and consider the causes of immobility rather than mobility, it becomes obvious that there are several non-economic factors which explain why the movement from farms has not been at a more rapid rate in areas where it would be desirable, from an economic standpoint, for far fewer people to remain in farming. In a southern Appalachian community, for example, the following factors have been listed as reasons for immobility: "religious, community and family ties, together with a strong love of the land, a disdain for material things and distrust of formal education." 1 Inadequate job information is also partially responsible for a low migration rate.

The Decline in the Farm Population and Increased Productivity

Since the United States extends over a continent, its 4.5 million farms—
... cover a very wide range of economic conditions, types of farming, systems of production, and associated economic and social problems. People may speak of an average farm, but the term "average" covers a combination of such widely varying conditions that it is likely to prove meaningless or even misleading. 2

The range in farm sizes, farm incomes and levels of land and labour productivity is much wider than in any other country considered in this and the following chapter. Table 7 gives some indication of the range in incomes, showing farms by economic class. The census of agriculture

<table>
<thead>
<tr>
<th>Type of farm</th>
<th>Number (thousands)</th>
<th>Average size (acres)</th>
<th>Value of farm products sold per farm (dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All farms</td>
<td>5,379</td>
<td>215.6</td>
<td>4,142</td>
</tr>
<tr>
<td>Commercial</td>
<td>3,706</td>
<td>275.6</td>
<td>5,858</td>
</tr>
<tr>
<td>Class I (large scale)</td>
<td>103</td>
<td>2,421.7</td>
<td>56,058</td>
</tr>
<tr>
<td>&quot; II (large family scale)</td>
<td>381</td>
<td>566.8</td>
<td>14,475</td>
</tr>
<tr>
<td>&quot; III (upper medium family scale)</td>
<td>721</td>
<td>298.2</td>
<td>7,017</td>
</tr>
<tr>
<td>&quot; IV (lower medium family scale)</td>
<td>882</td>
<td>191.2</td>
<td>3,625</td>
</tr>
<tr>
<td>&quot; V (small family scale)</td>
<td>907</td>
<td>122.8</td>
<td>1,813</td>
</tr>
<tr>
<td>&quot; VI (small scale)</td>
<td>717</td>
<td>84.9</td>
<td>720</td>
</tr>
<tr>
<td>Non-commercial farms</td>
<td>1,673</td>
<td>82.8</td>
<td>339</td>
</tr>
<tr>
<td>Part-time</td>
<td>639</td>
<td>75.6</td>
<td>612</td>
</tr>
<tr>
<td>Residential</td>
<td>1,030</td>
<td>50.0</td>
<td>82</td>
</tr>
<tr>
<td>Unusual</td>
<td>4</td>
<td>9,178.9</td>
<td>21,446</td>
</tr>
</tbody>
</table>

Source: R. L. Mighell, op. cit.

groups farms into commercial and non-commercial farms. Commercial farms are divided into six economic classes, the classification being based on the value of products sold, which is roughly equivalent to gross farm income. Classes V and VI (small scale and small family scale) include the 1.5 million "low income" farmers.

Between 1930 and 1954 the total number of farms fell from 6,289,000 to 4,782,000, a decrease of roughly 25 per cent. Commercial farms decreased by 27 per cent. from 1939 to 1954; the decline, however, affected only farms in Classes IV to VI, while Class I farms increased by 123 per cent. and those in Classes I to III by 44 per cent.

In terms of acreage, it is the smaller farms (i.e., those with less than 260 acres) that have been decreasing, whereas the larger farms have increased in number. As a corollary, the average size of farms has increased from 157 acres in 1930 to 242 in 1954, while commercial farms have increased from 220 acres in 1940 to 336 in 1954. During the same period the number of workers per farm has decreased by 16 per cent., as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of workers per farm</th>
</tr>
</thead>
<tbody>
<tr>
<td>1930</td>
<td>1.90</td>
</tr>
<tr>
<td>1940</td>
<td>1.73</td>
</tr>
<tr>
<td>1950</td>
<td>1.65</td>
</tr>
<tr>
<td>1954</td>
<td>1.59</td>
</tr>
</tbody>
</table>

The fact that the number of workers per farm has decreased while farms have become considerably larger underlines the great advance in mechanisation and technology since 1930, which has permitted a considerable decrease in manpower without a reduction in farm production. There are now some 4.5 million field tractors in the United States, i.e. one for every farm and about three times as many as in 1940, while such comparatively new machines as pick-up balers, corn pickers and field forage harvesters have increased tenfold. These, and no less important advances in fertiliser consumption, plant and animal breeding and other technical processes, have enabled productivity in agriculture to rise sharply, output per man-hour now being more than a third again as high as it was in the immediate post-war years, and twice as high as in 1940. In fact, between 1940 and 1955 labour productivity rose more rapidly in agriculture than in manufacturing, where the increase in productivity during the same period was less than 50 per cent. The continued rise in agricultural productivity is, in relation to the mobility of farm population, the kernel of the problem facing American agricultural policy makers, since continued output of certain products in excess of what can be readily absorbed by the market is leading economists to question whether there should not be a drastic reduction in the resources, including manpower, now used in farming.
Changes in the size of farms and higher productivity may be considered largely as the results, rather than as causes, of the decrease in the farm labour force. There is little evidence to prove that people have been “tractored off” farms in recent years, as they were during the 1930s. Even at that time the considerable loss of population in the dust bowl states was as much a result of farmers becoming bankrupt through crop failures as of mechanisation. Some displacement of tenants and sharecroppers, both in the dust bowl and the Deep South, was undoubtedly due in part to mechanisation, but at the same time the regulations of the cotton acreage control programme of the Agricultural Adjustment Administration made it more advantageous for landowners to employ wage-earning labour rather than tenants on cotton farms, and this in turn led to mechanisation.

Migration and Farm Policy

Since the depression of the 1930s American farm policy has been concerned with promoting equivalent earnings between farming and other occupations, largely through a policy of supporting the prices of farm products at “parity” levels, determined by reference to a standard relationship between farm prices and other prices in the 1910-14 period. At the same time, and as part of the price support policy, attempts have been made to adjust agricultural output to demand. Rapid strides in technology, plus favourable weather, have made these latter programmes largely ineffective. Especially in recent years farmers and their organisations have been greatly concerned with the fact that farm income has declined, even though economic activity has been at a very high level. The present tendency is to tackle the farm problem through an adjustment in the resources used in agriculture.

As concerns manpower as a major element in farm resources, particular attention is being paid to low income farmers. In 1955 a special programme was launched to deal with the problems of low income farmers, numbering 1.5 million, or rather more than one-fourth of all farm families in the United States. Low income areas were delineated on the basis of net income of full-time farmers, level of living and scale of operation, and were defined as “areas of dense rural settlement with high birth rates, where there are few outside jobs, and where topography or other obstacles hinder the use of modern machinery.” These areas are concentrated in the southern states.

The programme calls for a co-ordinated approach to problems at the local level, covering increased productivity in agriculture, particularly through education (i.e., agricultural extension services), research and credit; improved opportunities for other employment, through better job information services, industrial decentralisation and other measures; and improved vocational training facilities both for agriculture and for non-agricultural jobs. Among various proposals to aid the shift out of agriculture, it has even been suggested that the Government should make outright grants to farmers who want to migrate to cover their removal and installation expenses, in the same way as it makes payments to farmers for complying with certain agricultural programmes. Suggestions have also been made for resettlement in more favourable agricultural regions, as exemplified by the following passage:

... Take them into the city and find a job for the household head? There is nothing he could do except sweep the street and for that he would be found too lazy... Now I say, don't waste time on the hillbilly in situ, or the sharecropper eating his bread off grocery-store advances. Instead, homestead him on good land. Instead of pushing the dumbuddy land bank, buy up sections of good land, build decent cottages, and invite the hillbilly to exchange his misery for forty acres and a mule. He would not produce much on his forty acres, but he would provide more adequate food for his children, who would have schools to go to. And in the third generation they would appear in Congress, to darken counsel. Instead of a land bank, I am proposing an American citizen bank... To take good land out of competent management and make homesteads for incompetents would of course cut production. What is wrong with that, in these times? ¹

Farmers' organisations cannot be expected to endorse proposals which might conceivably be labelled as "ploughing farmers under" or the "forced migration" of farmers off the land. In the hearings held in 1957 in connection with the study of commercial farm policy problems carried out by the Subcommittee on Agricultural Policy of the congressional Joint Economic Committee, the representative of the Farmers' Union (representing mainly small farmers) argued that before moving people off farms the numbers of foreign farm labourers brought into the country should be reduced; and in 1957 and 1958 the Department of Labor restricted the immigration of foreign farm workers, and state employment services were directed to publicise openings for farm work for city workers, to replace Mexican workers during the 1958 harvest season.

The special features of the agricultural economy of Canada which are relevant to labour movement include the large areas of potential agricultural land, and the comparatively recent settlement of the prairie provinces. The total area of land suitable for agriculture is more than three times the area of the whole of France, but only about half of it has so far been occupied. Opening up of new land, early application of machines in highly specialised grain farming in the prairies, out-migration of farmers and subsequent combination of holdings, have caused a steady increase in farm size. In 1956 the average area per farm was over 300 acres. This average should, however, be interpreted in the light of the fact that about 44 per cent. of the total area in farms is so-called unimproved land, including woodlands exploited in combination with farming. Wheat production is mainly concentrated in the three prairie provinces—Alberta, Saskatchewan and Manitoba—with a particularly high degree of specialisation in wheat in Saskatchewan. In the rest of Canada a mixed type of agriculture predominates.

**Agricultural Labour Force Trends**

Three stages in the development of the farm labour force may be distinguished. The first was a period of rapid growth, when the settlement of the country was proceeding. From a total of 700,000 at the beginning of the period, the active farm population increased to a maximum of 1,084,000 in 1931. Since then there has been a decline. In 1951 it numbered 827,000, representing 15.8 per cent of the total active population of 5,180,000.

### Table 8. Canada: Active Population in Agriculture, 1901-51

<table>
<thead>
<tr>
<th>Year</th>
<th>Operators</th>
<th>Family labour without pay</th>
<th>Hired workers</th>
<th>Total active in agriculture</th>
<th>Total active population</th>
<th>Agricultural as percentage of total active population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1901</td>
<td>447</td>
<td>184</td>
<td>85</td>
<td>716</td>
<td>1,783</td>
<td>40.2</td>
</tr>
<tr>
<td>1911</td>
<td>686</td>
<td>103</td>
<td>145</td>
<td>934</td>
<td>2,724</td>
<td>34.3</td>
</tr>
<tr>
<td>1921</td>
<td>659</td>
<td>212</td>
<td>170</td>
<td>1,041</td>
<td>3,164</td>
<td>32.9</td>
</tr>
<tr>
<td>1931</td>
<td>645</td>
<td>284</td>
<td>202</td>
<td>1,131</td>
<td>3,922</td>
<td>28.9</td>
</tr>
<tr>
<td>1941</td>
<td>645</td>
<td>258</td>
<td>181</td>
<td>1,084</td>
<td>4,196</td>
<td>25.8</td>
</tr>
<tr>
<td>1951</td>
<td>548</td>
<td>145</td>
<td>134</td>
<td>827</td>
<td>5,180</td>
<td>15.8</td>
</tr>
</tbody>
</table>

Source: censuses of Canada. In the censuses of 1901, 1911, 1921 and 1931 the active population includes persons 10 years of age and over, in later years 14 years and over. "Operators" include all the different categories of farmers for whom somewhat different classifications have been applied in different years. "Family labour without pay" includes the category "farmers' sons" in the 1901, 1911 and 1921 censuses and "unpaid workers" in 1931, 1941 and 1951. "Hired workers" include "labourers" in 1901, 1911 and 1921 and "wage earners" in the later censuses.

1 Female workers (including hired help and farmers' wives and daughters doing agricultural work in the week when the census was taken) are included in the table, but their numbers have always been small, amounting to 4.4 per cent. of the total agricultural labour force at their maximum in 1911. In 1951 the percentage was 3.8.
beginning of the present century the figure rose to 1 million in 1920. The second phase was one of stability: from 1920 to 1941 the figure remained almost constant, fluctuating between 1.1 and 1.2 million, with some increase during the depression of the 1930s. The third phase has been one of very rapid decline, the labour force having fallen by 30 per cent. between 1946 and 1955. ¹ This decline is still continuing; in 1957 the total labour force in agriculture was about as large as it was at the beginning of the century.

Table 8 shows changes in the size and composition of the agricultural labour force and its proportion to the total labour force from 1901 to 1951.

Changes in Size.

The recent rapid decline in the agricultural labour force can be observed in the estimates made by the Dominion Bureau of Statistics on the basis of annual sample surveys. Table 9 shows these estimates for the years 1931 to 1958. It will be noted that, for each of the three latest census years (1931, 1941 and 1951), the total agricultural labour force as estimated by the sample survey is larger than the total active agricultural population as recorded by the census (see table 8), even though the date

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of workers</th>
<th>Year</th>
<th>Number of workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1931</td>
<td>1,140</td>
<td>1945</td>
<td>1,075</td>
</tr>
<tr>
<td>1932</td>
<td>1,159</td>
<td>1946</td>
<td>1,186</td>
</tr>
<tr>
<td>1933</td>
<td>1,178</td>
<td>1947</td>
<td>1,110</td>
</tr>
<tr>
<td>1934</td>
<td>1,197</td>
<td>1948</td>
<td>1,097</td>
</tr>
<tr>
<td>1935</td>
<td>1,217</td>
<td>1949</td>
<td>1,067</td>
</tr>
<tr>
<td>1936</td>
<td>1,236</td>
<td>1950</td>
<td>1,007</td>
</tr>
<tr>
<td>1937</td>
<td>1,255</td>
<td>1951</td>
<td>932</td>
</tr>
<tr>
<td>1938</td>
<td>1,274</td>
<td>1952</td>
<td>889</td>
</tr>
<tr>
<td>1939</td>
<td>1,293</td>
<td>1953</td>
<td>858</td>
</tr>
<tr>
<td>1940</td>
<td>1,259</td>
<td>1954</td>
<td>873</td>
</tr>
<tr>
<td>1941</td>
<td>1,147</td>
<td>1955</td>
<td>817</td>
</tr>
<tr>
<td>1942</td>
<td>1,068</td>
<td>1956</td>
<td>776</td>
</tr>
<tr>
<td>1943</td>
<td>1,049</td>
<td>1957</td>
<td>744</td>
</tr>
<tr>
<td>1944</td>
<td>1,067</td>
<td>1958</td>
<td>720</td>
</tr>
</tbody>
</table>


of the survey was the same, by reason of a number of differences in the methods used.¹

Table 9 illustrates the strong falling trend of the agricultural labour force which began in 1946, when the total reached the same level as in 1934. By 1958 the decline from the 1946 level amounted to 466,000, or 39 per cent. This is among the highest rates of decline in the world, with an average loss of 3.6 per cent. per year, a rate similar to that of Sweden in the same period.

Changes in Composition.

From 1901 to 1956 farm operators have constituted by far the most important element in the agricultural labour force, although their share in the total has varied, both over the years and from one region to another. Farm operators increased in numbers in all parts of Canada until the end of the First World War, while the number of family workers tended to decrease, partly because of movement into other occupations and partly because new farmers were recruited from farmers’ sons.² From the end of the First World War up to 1931 the number of farmers in Canada as a whole declined, owing to the decrease in eastern Canada, which outweighed the continuing increase in western Canada. Family workers and hired workers grew in numbers during the period. Consequently, the proportion of farm operators in the total labour force declined from 73 per cent. in 1911 to 59 per cent. in 1931, but it has now risen again as a result of the recent rapid decline in the number of family workers, and in 1955 amounted to 66 per cent. of the total.

Since 1946 farmers have been the least mobile group, while family workers have been extremely mobile. Hired men and family workers left farms at equal rates until 1951, but since then the hired labour force has slightly increased its proportion of the total while unpaid family workers have continued to leave the farms. Between 1946 and 1955, with a decline in the total agricultural labour force of 31 per cent., the number

¹ The current surveys probe more deeply in order to bring out marginal elements in the labour force, such as family members working on farms. This is particularly evident from the differences in the two sources concerning the numbers of female family workers on farms. In 1951, for instance, when the census showed 35,000 women as employed in agriculture, of whom 18,000 were unpaid female labour, the sample survey included 99,000 women in the unpaid category. In June 1946, according to the labour force survey, 200,000 women were engaged in agriculture, 174,000 as unpaid labour, while in June 1957 the corresponding figures were 52,000 and 34,000, indicating that a definite occupational change must have taken place after the war in the number of female family members on farms. Whether this is part of a longer trend is difficult to assess from the available statistics.

of farmers declined by 20 per cent., family workers by 53 per cent., and hired workers by 28 per cent. These changes are illustrated by table 10.

### TABLE 10. CANADA: CHANGES IN THE AGRICULTURAL LABOUR FORCE BY CLASS OF WORKER, 1946-55

<table>
<thead>
<tr>
<th>Year</th>
<th>All labour</th>
<th>Self-employed</th>
<th>Unpaid family</th>
<th>Hired</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Index number</td>
<td>Percentage of total labour</td>
<td>Index number</td>
<td>Percentage of total labour</td>
</tr>
<tr>
<td>1946</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>57</td>
</tr>
<tr>
<td>1951</td>
<td>79</td>
<td>100</td>
<td>88</td>
<td>64</td>
</tr>
<tr>
<td>1955</td>
<td>69</td>
<td>100</td>
<td>80</td>
<td>66</td>
</tr>
</tbody>
</table>


These changes illustrate the growing importance of commercial farming, a trend which has been described in the following terms:

The number of family workers who are prepared to work without specific monetary compensation becomes rapidly smaller as attractive jobs become available in a full employment economy and transportation to city employment becomes more easily available. The present trend, in which self-employed workers are becoming a larger part of the labour force, is likely to continue. Farmers running businesses without help of any kind are likely to become more and more common as time passes.¹

**Factors in the Migration of Farm Labour**

**Employment Factors.**

Up to the end of the First World War the demand for labour in agriculture was mainly determined by the rapid expansion of the area of land settled. This continued in eastern Canada up to 1921, and in western Canada up to 1931. The area in farms grew from 63 million acres in 1901 to 174 million in 1951, but most of the increase (100 million acres) took place in the first 30 years of the century; since 1930 only 11 million acres have been added.² So long as settlement was proceeding rapidly the demand for labour in agriculture increased. The upward trend in the size of the labour force in agriculture which continued up to the end of the First World War reflected increased opportunities for agricultural employment in Canada as a whole. By 1921 the farm area in eastern Canada was fully occupied, and there was a steady

¹ DRUMMOND and MACKENZIE, op. cit., p. 25.  
² Ibid., pp. 61-62.
movement out of agriculture into other occupations, or into the newly settled regions of western Canada. Since 1930 the rate of settlement has been decreasing, and consequently the demand for labour in agriculture no longer depends, except to a very minor extent, on the expansion of the area in farms. It is now determined mainly by the rate of technological progress.

During the 1930s, when the decline in the rate of settlement checked the expansion of demand for labour in agriculture, there was nonetheless an increase in the size of the agricultural labour force (about 160,000 between 1931 and 1939). The cause was the lack of jobs in industry. Farm incomes and wages were extremely low in relation to incomes and wages in other sectors. There was much underemployment of farm manpower and resources during this period, evidenced by the fact that during the war production per man in agriculture averaged about 50 per cent. more than the average for the four pre-war years, with no increase in capital equipment, and with a decline in manpower.\(^1\)

After the Second World War Canada entered that stage in economic development when agricultural manpower is directly affected by redistribution of resources—or, in other words, when economic growth in the non-agricultural sectors is a cause, rather than an effect, of out-movement of surplus population from agriculture. The general background of this redistribution has been the economic expansion during the war and after, which in turn may be considered as a product of earlier development.\(^2\)

Between 1939 and 1955 industrial and agricultural production increased by 104 per cent., equivalent to an annual rate of 4.6 per cent. During the same period, in spite of a 27.3 per cent. increase in the number of persons with jobs, the total labour input, measured in man-hours, increased by only 10.4 per cent., owing to reduced working hours:

\[\ldots\] In a word, over the past sixteen years, while our population increased by almost two-fifths and material living standards, per capita, rose by over 60 per cent., there was an increase of only some 10 per cent. in the expenditure of labour time. This was made possible by a fuller employment of the productive factors, particularly in the earlier years of the war; by a transfer of labour from agriculture to more highly productive (as measured by value of output) activities and by a high rate of capital formation, particularly in the years immediately after the war.\(^3\)

By contrast with earlier movements, the present rapid decline in the agricultural labour force is influenced mainly by an expansion of demand

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\(^2\) Ibid., p. 3.

\(^3\) Ibid., p. 6.
for labour in other sectors and a contraction of demand for labour in agriculture, resulting from mechanisation. While in the case of other countries the extent to which out-movement of labour in recent years has been influenced by mechanisation is difficult to evaluate, so far as Canada is concerned there can be no doubt that mechanisation is a major and direct cause of movement.

Power-driven machinery in Canada is of course not an innovation of recent years, but its generalised use dates from the end of the Second World War:

... In physical volume the new investment in the ten years after the end of the war was three times as great as it was in the previous ten-year period. By 1951 there were three times as many tractors per 100 farms as in 1941, five times the number of grain combines, and three times the number of trucks. Electric motors had increased fourfold.

Regional trends in labour use follow this pattern of mechanisation quite closely. Labour left farms more quickly in the Prairie region and in Ontario between 1946 and 1951 than it has since. In Quebec, however, the decline has been greater since 1951, while the rate of mechanisation has increased. In the Maritimes the fall in the labour force seems to have more connection with other employment opportunities than with mechanisation. The rate of decline was greater in the 1946-51 period than it has been since, and relatively more people have left agriculture in this region than elsewhere in Canada. In British Columbia the labour force has hardly altered, largely because of the expansion of land in farms and in the number of farms. The increase in mechanisation in that province is just as striking as that in the Prairie region, but it has just kept pace with land development and the intensification of land use which has occurred.1

The increased use of machinery and other farm equipment has been the main cause of the very rapid increase in the productivity of labour in agriculture. Between 1935-39 and 1951-55 the agricultural labour force declined by 30 per cent., while the official index of the physical volume of agricultural production shows an increase of 49 per cent. in the same period. However, between 1951 and 1955 there were four exceedingly good grain harvests, owing to extremely favourable conditions. If the average of the years 1947-55 is taken, the difference between the average of these years and the 1935-39 period is 38.5 per cent.2 By comparison with the pre-war period output per worker has approximately doubled.

Relative Incomes.

As in the United States and in most western European countries, farm incomes and wages have risen as compared with the pre-war period, both absolutely and in relation to other incomes and wages. Before the Second

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1 DRUMMOND and MACKENZIE, op. cit., pp. 22 and 24.
2 Ibid., p. 10.
World War income and wage differentials between agriculture and other occupations were very large. In the later 1930s incomes of non-paid farm workers (including farm operators) averaged about one-third of the incomes of industrial workers; in terms of dollars adjusted by farm and non-farm price indexes, the disparity was not quite so wide, the average income of the non-paid farm worker being about 40 per cent. of that of the non-farm worker. In 1946-55, however, the average income of the non-paid farm worker has approached parity with the average labour income of the non-farm worker, and at times has even exceeded it.¹

Wages of paid farm labour show a somewhat smaller disparity with the average labour income of the non-farm worker than they did in the late 1930s (when they represented only 35 per cent. of the average labour income in other occupations), but the disparity is still very wide. Up to 1946 the real income of paid workers rose, and the ratio between farm and non-farm wages was raised to 58 per cent. Between 1948 and 1957 real wages in agriculture rose by 10 per cent. The disparity with other sectors has again increased, and in 1955 farm wages represented 44 per cent. of average labour income in other occupations, as table 11 shows.

**TABLE 11. CANADA: ANNUAL AVERAGE EARNINGS OF MALE FARM HELP AND NON-AGRICULTURAL WORKERS, 1946-55**

<table>
<thead>
<tr>
<th>Year</th>
<th>Male farm help</th>
<th>Non-agricultural workers</th>
<th>Male farm help as percentage of non-agricultural workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1946</td>
<td>987</td>
<td>1,727</td>
<td>58</td>
</tr>
<tr>
<td>1948</td>
<td>1,201</td>
<td>2,166</td>
<td>55</td>
</tr>
<tr>
<td>1950</td>
<td>1,188</td>
<td>2,376</td>
<td>50</td>
</tr>
<tr>
<td>1952</td>
<td>1,452</td>
<td>2,831</td>
<td>51</td>
</tr>
<tr>
<td>1954</td>
<td>1,455</td>
<td>3,113</td>
<td>47</td>
</tr>
<tr>
<td>1955</td>
<td>1,395</td>
<td>3,166</td>
<td>44</td>
</tr>
</tbody>
</table>


So far as paid workers are concerned, the falling ratio of farm to non-farm wages is an indication of the strength of mechanisation as a push factor. So, too, is the fact that employment has become more seasonal than in the inter-war years, when a larger proportion of labour was paid on annual contracts. Most hired labour is now taken on for specialised seasonal work, for which wage rates are relatively high. The

¹ Drummond and Mackenzie, op. cit., p. 341 and Appendix E.
paid labour remaining on many farms "is of a general duty category, and frequently is hired on a seasonal basis, pay for the winter season being at a much lower rate than for the summer season." ¹

However, as table 10 above shows, in recent years it is the non-paid family members who have left agriculture most rapidly—this despite the fact that their average incomes are as high as the incomes of non-farm workers, and sometimes higher, as shown by table 12. Fluctuation in farm incomes is one of the main reasons for this. ² Social factors, discussed below, may also play a part.

TABLE 12. CANADA ¹: AVERAGE EARNINGS PER NON-PAID FARM WORKER AND PER NON-FARM WORKER OVER THREE RECENT PERIODS

<table>
<thead>
<tr>
<th>Period</th>
<th>Non-paid farm workers</th>
<th>Non-farm workers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Current dollars</td>
<td>1949 dollars</td>
</tr>
<tr>
<td>1935-39.</td>
<td>364</td>
<td>711</td>
</tr>
<tr>
<td>1951-55.</td>
<td>2,830</td>
<td>2,477</td>
</tr>
<tr>
<td>1935-55.</td>
<td>1,358</td>
<td>1,595</td>
</tr>
</tbody>
</table>

Source: DRUMMOND and MACKENZIE, op. cit., p. 342.

¹ Newfoundland not included.
² Figures obtained by adding net farm income to the estimated off-farm earnings of farm operators and their paid and unpaid help. The average income per non-paid farm worker therefore includes elements of return as follows: (a) for non-contractual labour (non-paid labour of the operator and other workers); (b) for management (a return to the operator); (c) for capital invested in the business by the operator and, in some instances, by the non-paid labour force; and (d) for off-farm or non-farm labour of the farm operator and his labour force. ³ Average labour income of all workers other than those contractually hired on farms (paid farm workers) or working on farms without a wage contract (non-paid farm workers). The figures do not include investment income, government transfer payments, and so forth.

Effects of the Movement of Labour

One of the main effects of the out-migration of farm operators has been a reduction in the number of farms which, between 1941 and 1955, declined by 12 per cent. Since the area in farms during the period remained almost constant, the reduction in number has been accompanied by an increase of 15 per cent. in the average farm size. Most of the increase took place in the prairie region, where farms in 1951 were 20 per cent. larger than in 1931. ³ Reorganisation into larger units has been one of the factors making for increased efficiency, although it is far from being as important in this respect as the threefold increase in farm machinery and equipment which took place between 1941 and 1955.

¹ DRUMMOND and MACKENZIE, op. cit., p. 347.
² Ibid., p. 341.
³ Ibid., pp. 19 and 21.
Larger holdings and a smaller farm population result in greater distances between farm homes and hence a higher cost of rural services per inhabitant; these factors can only accelerate changes in farming methods and in employment opportunities outside agriculture. This is particularly true of the prairie region, where economic and social forces since the days of settlement have intensified the isolated farm residence pattern, and where farms are generally very large. The Royal Commission on Agriculture and Rural Life in the Province of Saskatchewan has pointed out the difficulties involved in building up an adequate community life with a dwindling population; these include, among others, the high cost of maintaining roads, stores, post offices and schools, and of providing social amenities.1

Different forms of adjustment to these processes can be observed as, for example, the transfer of farm residences to important market roads, as well as the practice of "town farming". In 1956, 16 per cent. of all farmers in Saskatchewan were farming from a town residence. The main reason for this seems to be the need for obtaining services available in urban communities, particularly schools. For farmers living on the land, the practical difficulties involved in getting children to early school buses, long rides to and from school, and late returns home all impel moving to town. Isolation from sources of supply when roads are blocked or in bad repair, distance from health services, and absence of power and water are some of the other service considerations by which farmers are guided in choosing their place of residence.

Part-Time Farming

A comparatively large proportion of farmers—some 172,000, according to the 1951 census—do part-time work off their farms. Of those numbered at the 1951 census, about 100,000 worked more than 100 days off the farm and the rest from one week to 100 days. At the same time 65,000 farms, or more than 10 per cent. of all those in Canada, were registered as part-time farms, and 87,000 were registered as small-scale farms with annual sales of 250 to 1,200 dollars. These 152,000 part-time and small-scale farms correspond roughly to the 172,000 operators who work outside their farms. The remainder are probably included in the category of farms with total sales ranging from 1,200 to 2,500 dollars; these number 150,000 (out of a total of 623,000 farms). In all there are about 300,000 farms where the value of produce sold is below 2,500 dollars, and of these roughly 170,000 derive income from work outside the farm.

1 Government of Saskatchewan, Royal Commission on Agriculture and Rural Life: Movement of Farm People, Report No. 7 (Regina, 1956), pp. 8-10.
Since a farm income of less than 2,500 dollars is insufficient to support a family (according to the report of the Royal Commission on Agriculture and Rural Life in the Province of Saskatchewan) it would appear that, in spite of the comparatively large average size of farms in Canada, there is a significant proportion of part-time and small farms where the farm income alone cannot normally support a family. There is little information concerning the types of supplementary employment which farmers most commonly take up. It is estimated, however, that about half of the workers in paid logging are farmers and farmers' sons.\(^1\)

**Low Income Farmers**

Canada, like the United States, has a problem of low income farmers resulting in part from the concentration of small farms in regions where the prospects for significant improvement in incomes are poor, and in part from the inability of individual farmers in generally prosperous regions to achieve higher levels of efficiency. The former regions include the maritime provinces and parts of Quebec, particularly the Appalachian highlands. These are the regions of earliest settlement, where the system of land tenure shows a high degree of rigidity, in contrast to the fluidity of the prairie region. In the maritime provinces there has been little change from the pattern of tenure established a century ago. In the province of Quebec, farms remain predominantly small, with the average farm size of 125 acres unchanged from 1921 to 1951.\(^2\)

During the inter-war period, the misfortune of Canadian farmers was an excess of mobility into farming.\(^3\) The settlement of the prairie provinces was undertaken in a spirit of optimism, which failed to appreciate the obstacles of drought conditions. The agricultural depression of the thirties had a particularly severe effect on a form of farming which was specialised in producing wheat for the export market, and also subject to great fluctuations in yields. Settlers experienced considerable hardship which could not, under prevailing conditions, be alleviated by movement to other occupations.

Agricultural policy has in consequence concentrated mainly on measures to even out the effects of price and yield fluctuations. These, together with the increase in farm sizes, out-migration, and the rise in farm productivity, have eliminated to a great extent the inter-war problem of low and fluctuating income in the prairie region. Here the

\(^1\) *The Labour Gazette* (Ottawa, Department of Labour), Vol. 57, No. 1, Jan. 1957, pp. 28-34.

\(^2\) DRUMMOND and MACKENZIE, op. cit., p. 165.

\(^3\) J. R. BELLERBY: *Agriculture and Industry Relative Income*, op. cit., p. 139.
problem of the low income farmer now consists in the inability of individuals to manage resources efficiently or to mobilise sufficient capital.

In the maritime provinces and parts of Quebec, the problem of insufficient mobility remains, although the rate of movement is higher in the maritime provinces than in the rest of Canada, and high also in Quebec. Low incomes from farming are partly compensated by higher earnings from off-farm employment. In some of these regions, however, particularly Nova Scotia and New Brunswick, reorganisation into fewer and larger units is considered to be a necessary condition for achieving an adequate income level.¹

¹ Drummond and Mackenzie, op. cit., pp. 157-158 and 363.
CHAPTER III

ECONOMICALLY ADVANCED COUNTRIES:
WESTERN EUROPE

In comparison with North America, farming in western Europe is much smaller in scale and more intensive in use of labour and capital per acre. The fall in the size of the agricultural labour force in recent years has generally been slower than in North America, except in the Scandinavian countries, where it has been as rapid as in the United States. As in North America, farmers and their families are the main components of the agricultural labour force. Hired workers account for a large proportion only in the United Kingdom (70 per cent.) and Italy (40 per cent.); elsewhere they represent less than a quarter of the total.

As will be seen, the absolute decline in numbers in agriculture began earlier in the western European food importing countries than in North America. To competition from new lands the western European countries, hitherto more or less self-sufficient in food supplies, responded in various ways—by reducing domestic grain production and increasing food grain imports; by conversion to livestock and dairy production, and increasing imports of feed grain; and by tariff protection, which reduced, but did not exclude, imports of grain and other food products.  

From the last quarter of the nineteenth century, when the effect of overseas food competition was first felt, up to the Second World War, the degree to which labour requirements in agriculture contracted depended to a great extent on which of these courses was followed. Under a free trade policy, the United Kingdom reduced its arable area and extensified its farming; in spite of technical progress, however, agriculture remained a depressed industry with a static output, contracting labour requirements and low wages over the whole period (with the exception of the First World War). In France, in spite of tariff protection, the arable area contracted and production increased slowly; the expansion of the home market was restricted by the slow growth of population, and the transfer of manpower was rendered difficult by the stagnation of industry. In Western Germany adjustment was easier: tariff protection allowed domestic food production to expand with growing population,

1 Tariff levels generally remained low until the 1930s, when some countries introduced measures of protection which excluded food imports entirely.
and the growth of industry absorbed agricultural labour more rapidly. In Denmark and the Netherlands, more feed grain was imported, arable cultivation was intensified to provide more feeding stuffs, and the demand for labour in agriculture grew with increasing output and exports. The farm labour force thus continued to increase up to the end of the period, with rising levels of labour productivity.

For all the countries in this group, the agricultural depression of the 1930s was a period of slow movement, as compared with recent years, because general unemployment checked the absorption of manpower into other occupations, although the level of incomes in agriculture was much lower in relation to other incomes than it has been since the Second World War.

Differences in trade policies are now less significant in relation to labour requirements because, whatever the import position, the State supports farm prices in all the countries included in this chapter, with the exception of Denmark. France, the Federal Republic of Germany, Italy and Sweden are now largely self-supporting, while the United Kingdom and Norway import about half their food. Denmark exports the greater part of its agricultural output, and the Netherlands two-fifths. Since 1945 the same push—farm mechanisation—and the same pull—increased demand for labour in other occupations—have been the main factors operating in all countries. The following sections deal with these recent changes, but since some features in the contemporary movement away from agriculture are a legacy from the past, earlier developments are reviewed as a background to the more detailed study of trends since the Second World War.

The countries included in this chapter have been selected because each exhibits features of special interest in regard to the occupational movement. Denmark has achieved a high degree of occupational balance and is free from serious problems arising out of differential rates of movement; it illustrates the conditions in which such balance can be achieved. France over the period 1875-1939 illustrates the difficulties involved in large-scale transfer of manpower under conditions of constant population and industrial stagnation; since the Second World War, the most striking feature of the farm economy has been the growth of regional disparities. Italy's problem is one of extreme agrarian poverty in the south, with much underemployment on extensively cultivated large estates. Surplus labour on smaller family farms is a feature of the agricultural economy in Western Germany, as in several other western European countries. The wage structure and the farm workers' housing problem are important aspects of labour migration in the United Kingdom. Finally, policy problems arise in the Netherlands with respect to
the absorption of surplus labour, and in Norway and Sweden in connection with the rationalisation of small-scale farming.

**DENMARK**

The outstanding feature of Danish agriculture is its level of labour productivity, the highest in continental Europe. By every standard of agricultural efficiency—the area of land under arable cultivation, crop yields or milk yields—Denmark heads the list of European countries. This result has been achieved by various means. Fertile land, proximity to the expanding British market in the late nineteenth century and the system of the folk high schools were important factors in progress. The cooperative movement enabled Danish farmers after 1864 to maximise these advantages early, by converting their grain and livestock farming to a meat and dairy produce industry, producing mainly for export and relying on imports of feed grains—a conversion which in other western European countries took place only later and to a much smaller extent. Some 65 per cent. of agricultural output is now exported, and agricultural produce represents two-thirds of net exports.

At the beginning of this agricultural revolution, the farm labour force was small in relation to the land area, and the ratio between the two was therefore favourable. Most farms were of medium size, averaging 16 hectares in 1901; moreover, they were not fragmented. Agricultural production increased very rapidly in the early years of the present century, rising by 60 per cent. between 1900 and 1914, when farm prices were rising; as for agricultural incomes, they doubled and consequently investment increased. After a decline in agricultural production and employment during the First World War, resulting from the shortage of feed grain imports, the 1920s saw new advances in output and productivity. During the 1930s investment in agriculture was cut down to a minimum, but the advance in production did not come to a complete standstill. In the period of enemy occupation, from 1940 to 1945, production fell and did not recover to the 1939 level until 1950. From 1949 onwards mechanisation was very rapid, the number of tractors increasing from about 7,000 in 1949 to over 60,000 in 1955, while agricultural production increased by over 30 per cent. Denmark is not, however, as highly mechanised as the United Kingdom or the other Scandinavian countries.

**Agricultural Labour Force Trends**

Up to 1930 the agricultural labour force increased slowly in numbers and then began to decrease, with a sharp decline of nearly 20 per cent.
between 1940 and 1950. The relative and absolute declines from 1901 to 1950 are shown in table 13.

**TABLE 13. DENMARK: TOTAL AND AGRICULTURAL LABOUR FORCE, 1901-50**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total gainfully employed</th>
<th>Gainfully employed in agriculture (persons aged 14 and over)</th>
<th>Gainfully employed in agriculture as percentage of total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Farm operators</td>
<td>Family and hired workers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>1901</td>
<td>(1,115)</td>
<td>148</td>
<td>14</td>
</tr>
<tr>
<td>1911</td>
<td>(1,239)</td>
<td>167</td>
<td>13</td>
</tr>
<tr>
<td>1921</td>
<td>1,331</td>
<td>171</td>
<td>10</td>
</tr>
<tr>
<td>1930</td>
<td>1,567</td>
<td>183</td>
<td>10</td>
</tr>
<tr>
<td>1940</td>
<td>1,755</td>
<td>185</td>
<td>9</td>
</tr>
<tr>
<td>1950</td>
<td>1,920</td>
<td>180</td>
<td>8</td>
</tr>
</tbody>
</table>

Source: for total employment figures, national census data; and for agricultural employment figures, H. Gad: Befolknings- og arbejdskraftsproblemer i dansk landbrug: i. Befolkningsforskydninger i dansk landbrug i tiden fra 1787-1950, Studier fra Aarhus Universitets økonomiske Institut, Nr. 12 (Aarhus, Akademisk boghandel, 1956).

1 Figures for 1901 and 1911 have been adjusted to allow for the incorporation of South Jutland in 1919. Such adjustment has not been made in the case of the figures for total employment. The percentages for 1901 and 1911 should, therefore, be somewhat lower than those shown in the table.

Table 14 shows more recent changes in the agricultural labour force in terms of labour input, measured in man-years. The figures are lower than those in table 13 because some persons registered in the census as gainfully employed were not necessarily employed a full year in the same industry. However, the figures indicate the same falling trend, showing that total employment in agriculture continued to decrease up to 1956/57.

**TABLE 14. DENMARK: RECENT CHANGES IN AGRICULTURAL LABOUR INPUT, MEASURED IN MAN-YEARS**

<table>
<thead>
<tr>
<th>Year</th>
<th>Farmers and wives</th>
<th>Children and relatives 14 years of age or over</th>
<th>Permanent hired workers with board and lodging on the farm</th>
<th>Permanent hired workers without board and lodging, and temporary hired workers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1938/39</td>
<td>180</td>
<td>57</td>
<td>109</td>
<td>32</td>
<td>478</td>
</tr>
<tr>
<td>1945/46</td>
<td>184</td>
<td>46</td>
<td>85</td>
<td>37</td>
<td>434</td>
</tr>
<tr>
<td>1949/50</td>
<td>188</td>
<td>39</td>
<td>70</td>
<td>28</td>
<td>37</td>
</tr>
<tr>
<td>1951/52</td>
<td>182</td>
<td>38</td>
<td>66</td>
<td>26</td>
<td>37</td>
</tr>
<tr>
<td>1953/54</td>
<td>181</td>
<td>35</td>
<td>62</td>
<td>23</td>
<td>37</td>
</tr>
<tr>
<td>1954/55</td>
<td>179</td>
<td>34</td>
<td>58</td>
<td>22</td>
<td>36</td>
</tr>
<tr>
<td>1955/56</td>
<td>171</td>
<td>33</td>
<td>55</td>
<td>20</td>
<td>33</td>
</tr>
<tr>
<td>1956/57</td>
<td>171</td>
<td>30</td>
<td>54</td>
<td>21</td>
<td>32</td>
</tr>
</tbody>
</table>

Source: data published by the Danish Statistical Department.
The composition of the agricultural labour force has undergone considerable change. Farm operators of both sexes, as table 13 shows, now represent nearly half the total labour force, as compared with about one-third at the beginning of this century. In 1901 there were about two hired and family workers for each farm operator, whereas in 1950 the proportion was 1.2 to 1. While there has been a decrease in the total number of farmers' children and relatives, the comparative importance of family labour as a whole has increased. Between 1921 and 1940 the proportion of family labour remained stable, at about 57 per cent. of the total labour force; it increased during and after the Second World War and reached 66 per cent. in 1954/55.

Permanent hired workers with room and board on the farm to some extent overlap with the family labour group. Many workers registered as family labour one year may well be registered as permanently hired workers the next year, because it is common practice in Denmark for farmers' sons to work partly with their parents and partly on other farms. The number of permanent hired workers decreased at a rate similar to that of children and relatives from 1938/39 to 1954/55, namely from 152,000 to 80,000, representing a rate of nearly 5,000 per year.

Permanent hired workers without room and board, together with temporary hired workers, compose the group of hired workers proper. As table 14 shows, the number of male hired workers in this group (expressed in man-years) remained comparatively stable between 1938/39 and 1956/57, while the number of female hired workers decreased by 9,000 in the same period.

The largest decline in agricultural manpower has taken place in the number of female workers because women now take much less part in farm work proper than they formerly did.\(^1\) Female workers are mainly engaged in work connected with the provision of board and lodging for male farm workers living in, and the demand for female workers is, to a certain extent, dependent upon the number of living-in male workers. That the reduction in the number of male workers living in has led to a reduced demand for female labour in agriculture is shown by the fact that the wages of female workers have not risen as much as the wages of male workers.

One consequence of the decrease in the number of female workers living in is the gradual drying up of the source from which housewives for farmers and the permanent wage and salary earners in agriculture were traditionally drawn. Formerly, the greater number of housewives came

from the group of living-in female workers, just as the "permanent labour force" was recruited from the group of living-in male workers. At present, the number of housewives dying and retiring can no longer be replaced from that source. Therefore, unless there is either an increase in the demand for female labour in agriculture proper, or an increased number of young girls wanting to work in agriculture, the farmers and their permanent workers will, to a considerable extent, have no option but to marry women who are not accustomed to working on a farm and to whom the farm environment will be unfamiliar.

The rate of recruitment into agriculture is now too low to replace the present "permanent labour force," a term which is understood to mean farmers and farm workers with a household of their own.¹ The non-permanent labour force consists of farmers' sons and hired workers with room and board on the farm, a group into which new generations of workers enter and out of which they move further, either into the permanent agricultural labour force or into other occupations. With the 1956 inflow of young workers, and taking account of the average duration of service in this group, the number of living-in workers will be reduced to about 75,000 in the course of five to seven years (as compared with 100,000 in 1953 and 160,000 between 1920 and 1940). The permanent agricultural labour force in 1950 numbered 240,000 male workers, of whom 185,000 were farmers and 55,000 wage and salary earners. The condition for maintaining it at a constant level is an annual inflow of about 7,000 men per year. Whether it will be possible to find, out of the 8,000 sons of farmers and farm workers who leave school each year, 7,000 who are willing to enter the permanent agricultural labour force will depend on the state of the employment market.

The main reason for the decline in the agricultural labour force in recent years is not a decrease in demand for labour in agriculture, but an increase in employment in non-agricultural occupations. Demand for labour in agriculture has actually increased since the Second World War, as a result of higher prices and technical conditions which increase labour requirements (as, for instance, increased output of feeding stuffs), in spite of the rapid advance in mechanisation. The gap between wages in agriculture and other comparable occupations has narrowed, since increased demand for labour has raised agricultural wages considerably in relation to other occupations. In the early 1930s daily earnings in agriculture represented only 50 per cent. of wages in comparable occupations, such as unskilled construction work, but because the percentage of unemployment was nearly 30 per cent. the rate of outward movement

¹ GAD, op. cit., pp. 113-114.
was low. In 1950-54 agricultural wages reached a level of about 75 per cent. of the level in comparable occupations, and the percentage of unemployment did not exceed 10 per cent. Labour has continued to move out of agriculture by reason of the higher level of earnings in other occupations and the opportunities for employment elsewhere.\(^1\)

**Stability of the Agrarian Structure**

The number of farm holdings has not changed much over the last half-century, nor have farms increased in size. In 1901 the average farm size was 16 hectares\(^2\), 110,000 farms being smaller than 15 hectares and 70,000 larger; in 1930 the average was the same, though it has decreased by about one hectare in recent years, probably as a result of the extension of urban areas. The increase in the number of farms up to 1930 is reflected in an increase in the number of farm operators, from about 160,000 in 1901 to more than 190,000 in 1930. The number of holdings is larger than the number of farm operators, indicating that a certain number of holdings still provide only supplementary employment for the owner. In 1950 there were about 17,000 such holdings, in most cases occupied by agricultural workers.

Danish statistics contain little or no information on the extent to which farmers and agricultural workers combine agriculture with other occupations, but there is reason to believe that such combination is not important. In the case of farmers this must be due to the comparatively large size of holdings which generally provide full employment for the owner. In 1950 there were about 20,000 holdings of less than three hectares, which would appear to be the minimum size for a full-time family farm.\(^3\) This number corresponds fairly closely to the number of farm owners whose farms provide only supplementary employment. Some proportion of the small farmers who are not fully occupied on their own farms work as day labourers on other farms; and in addition, during certain seasons, another 20,000 persons may be inclined to take farm work. A certain proportion of this labour force undoubtedly consists of small farmers and their wives and children, leaving a small number of persons who regularly combine agriculture with other occupations.

\(^1\) H. Gad: **Befolknings- og arbejdskraftproblemer i dansk landbrug**: II. **Arbejdskraftproblemer i dansk landbrug**, Studier fra Aarhus Universitets økonomiske Institut, Nr. 13 (Aarhus, Akademisk boghandel, 1957), pp. 240-245.

\(^2\) 1 hectare=2.471 acres.

\(^3\) It is, of course, impossible to determine strict limits. In animal husbandry the area of land does not necessarily determine the size of the economic unit because of the utilisation of purchased feeding stuffs, which in Denmark is very widespread.
Farm Income

The total net income of farmers, which has been estimated by the Danish Statistical Department in connection with the calculation of the national product and the national income for the years back to 1925, shows wide fluctuations, particularly during the thirties. After a setback in 1942 and the first years after the war, farmers' aggregate income increased steadily up to 1953; since then, however, net income has slightly decreased.

In addition to the income from agriculture proper, farmers' incomes comprise income from horticulture, forestry and other part-time occupations. In 1949 these supplementary sources yielded a total of 53 million Danish crowns, or less than 3 per cent. of the farmers' income, indicating that such part-time work is of little importance.

As the number of farms has changed comparatively little since 1925, the income per farm, which would approximately indicate the income per family, has increased in the same proportion as the total net income of farmers, from a level of about 3,500 crowns per farm in 1925 to about 10,000 around 1950. The corresponding income per head, on the other hand, increased at a higher rate, as the farm population decreased over the period.

Occupational Balance

One of the most striking features of the Danish economy is its balance in the distribution of the labour force within agriculture itself, and in the distribution of the labour force between agriculture and other occupations. The problem of low income farmers, which is such a striking feature in the United States and in several western European countries, apparently does not arise. Nor are there any great disparities in regional levels of labour productivity, as in France. The early growth of the co-operative movement and the fairly large average size of farms may explain why technical progress has been evenly spread over the farm economy as a whole and steadily maintained over a long period.

The balance in the distribution of the labour force between agriculture and other occupations is shown by the close correspondence between agriculture's share in the gross national product and its share in the total labour force. Over the past half-century, the discrepancy between net product per worker in agriculture and in other sectors has almost disappeared. In 1900 (as table 13 shows) agriculture's share in the total labour force was 40 per cent. and its share in net national product was 25 per cent. Consequently, the net product per worker was then about 50 per cent. of the net product per worker in other sectors. In 1950 agriculture's
share in the total labour force was 22 per cent. and its share in net product about 20 per cent., so that net product per worker then represented 80 per cent. of the net product per worker in other sectors—a difference which indicates a near-parity income position for farmers, although not for hired workers. In recent years this relationship has not changed. Agricultural labour productivity has thus kept pace with productivity in other sectors.

Denmark’s experience is interesting chiefly because it illustrates the conditions under which occupational balance may be achieved. One condition has been the movement of labour out of agriculture; but the investment of capital has been a condition of equal importance in raising the level of productivity. The early “takeoff” into the world market, with an agrarian structure already rationalised, was sustained by the growth of the co-operative movement. Official policy has been confined over the past 50 years to the partitioning of large estates and the establishment of family farms, the amalgamation of smaller ones and the reclamation of land, and has not intervened to support farm incomes by tariffs, guaranteed prices or subsidies. This policy of non-intervention has been possible largely because of the strength of the co-operative movement.

FRANCE

The conditions of the movement of labour out of agriculture in France during the last quarter of the nineteenth century and up to the beginning of the Second World War differed from those in other western European countries, in that total population increased very slowly and the rate of industrialisation was slow. In 1861 the total population of France was 37,386,000; in 1939 it was 41,600,000, and did not then exceed the population of 1913, within the 1919 frontiers. Since the Second World War the rate of natural increase has risen: in 1957 the total population was 43,600,000.

Farm Population and Agricultural Labour Force Trends

The magnitude of the long-term occupational shift can best be gauged from the decline in the size of the farm population and its share in the total population. In 1861 the farm population numbered 19,873,000 and represented half the total. In 1946 it numbered 10,240,000 and represented one-quarter of a total population of 40,318,000. During a period of 85 years the population dependent on agriculture declined by 9.5 million, or nearly 50 per cent. The decline was gradual and was temporarily halted by increases during the early years of the present century and the two world wars.
Changes in the population employed in agriculture and in other branches of economic activity between 1906 and 1954 are illustrated by table 15.

**TABLE 15. FRANCE: PERSONS EMPLOYED IN AGRICULTURE AND OTHER BRANCHES OF THE ECONOMY, 1906-54**  
*(Thousands)*

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Agriculture</th>
<th>Power</th>
<th>Industry</th>
<th>Transport</th>
<th>Commerce</th>
<th>Services</th>
<th>Agriculture as percentage of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1906 . . . . .</td>
<td>20,482</td>
<td>8,845</td>
<td>234</td>
<td>5,702</td>
<td>732</td>
<td>1,885</td>
<td>2,725</td>
<td>43.1</td>
</tr>
<tr>
<td>1921 . . . . .</td>
<td>21,183</td>
<td>9,014</td>
<td>322</td>
<td>5,789</td>
<td>1,132</td>
<td>2,018</td>
<td>2,617</td>
<td>42.6</td>
</tr>
<tr>
<td>1926 . . . . .</td>
<td>21,151</td>
<td>8,196</td>
<td>434</td>
<td>6,492</td>
<td>1,114</td>
<td>2,165</td>
<td>2,550</td>
<td>38.7</td>
</tr>
<tr>
<td>1931 . . . . .</td>
<td>21,159</td>
<td>7,694</td>
<td>444</td>
<td>6,560</td>
<td>1,148</td>
<td>2,345</td>
<td>2,772</td>
<td>36.4</td>
</tr>
<tr>
<td>1936 . . . . .</td>
<td>19,396</td>
<td>7,171</td>
<td>364</td>
<td>5,371</td>
<td>1,042</td>
<td>2,355</td>
<td>2,892</td>
<td>37.0</td>
</tr>
<tr>
<td>1946 . . . . .</td>
<td>20,520</td>
<td>7,484</td>
<td>428</td>
<td>5,713</td>
<td>1,197</td>
<td>2,102</td>
<td>3,180</td>
<td>36.5</td>
</tr>
<tr>
<td>1954 . . . . .</td>
<td>19,061</td>
<td>5,190</td>
<td>434</td>
<td>6,419</td>
<td>1,005</td>
<td>2,444</td>
<td>3,314</td>
<td>27.2</td>
</tr>
</tbody>
</table>


Table 16 illustrates trends in the agricultural labour force from 1921 to 1954. It should be noted that the 1954 total and agricultural labour force figures cannot be compared with the figures for earlier years because the 1954 census data were compiled on a different basis from those of 1946 and earlier years. In order to allow comparison with earlier censuses the 1954 figures have been adjusted to the old basis and are shown in the table, the actual census figures appearing below them in brackets.

**TABLE 16. FRANCE: AGRICULTURAL LABOUR FORCE, 1921-54**  
*(Thousands)*

<table>
<thead>
<tr>
<th>Year</th>
<th>Total agricultural labour force</th>
<th>Men</th>
<th>Index figure</th>
<th>Women</th>
<th>Women per 100 men</th>
</tr>
</thead>
<tbody>
<tr>
<td>1921 . . . . .</td>
<td>8,950</td>
<td>4,995</td>
<td>100.0</td>
<td>3,960</td>
<td>79</td>
</tr>
<tr>
<td>1926 . . . . .</td>
<td>8,130</td>
<td>4,740</td>
<td>94.9</td>
<td>3,390</td>
<td>71</td>
</tr>
<tr>
<td>1931 . . . . .</td>
<td>7,635</td>
<td>4,445</td>
<td>89.2</td>
<td>3,190</td>
<td>72</td>
</tr>
<tr>
<td>1936 . . . . .</td>
<td>7,140</td>
<td>4,220</td>
<td>84.5</td>
<td>2,920</td>
<td>69</td>
</tr>
<tr>
<td>1946 1</td>
<td>7,400</td>
<td>4,150</td>
<td>83.1</td>
<td>3,250</td>
<td>78</td>
</tr>
<tr>
<td>1954 . . . . .</td>
<td>6,310</td>
<td>3,550</td>
<td>71.1</td>
<td>2,760</td>
<td>77</td>
</tr>
</tbody>
</table>


1 Round figures, after deduction of an estimated number occupied in forestry and fisheries.

1 Under the old method, all members of farmers' families above school age were classified as employed in agriculture (provided that they were not reported as active in another occupation); but in 1954 only those family members who stated that they were engaged in an agricultural occupation were classified as active in agriculture.
On the basis of the adjusted 1954 figure, the decline in the agricultural labour force between 1921 and 1954 amounted to about 2.6 million, or about 30 per cent., while the decline as recorded by the 1954 census amounted to 3.8 million.

The agricultural labour force at the beginning of 1957 was estimated at 5,039,000, or 26.6 per cent. of the total active population of 18,945,000, as compared with 5,279,000 or 28 per cent. of the total active population in 1954.¹

The net movement of men under 40 out of agriculture into other occupations between 1921 and 1954 is estimated at 1.2 million, as shown in table 17, from which it will be seen that migration was most rapid in the periods of the two post-war booms.

**TABLE 17. FRANCE: NET MOVEMENT OF MEN UNDER 40 OUT OF AGRICULTURE, 1921-54**

<table>
<thead>
<tr>
<th>Period</th>
<th>Figure for entire period</th>
<th>Annual average</th>
</tr>
</thead>
<tbody>
<tr>
<td>1921-26</td>
<td>268</td>
<td>54</td>
</tr>
<tr>
<td>1926-31</td>
<td>176</td>
<td>35</td>
</tr>
<tr>
<td>1931-36</td>
<td>122</td>
<td>24</td>
</tr>
<tr>
<td>1936-46</td>
<td>202</td>
<td>20</td>
</tr>
<tr>
<td>1946-54</td>
<td>470</td>
<td>59</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,238</strong></td>
<td><strong>—</strong></td>
</tr>
</tbody>
</table>


Since the Second World War, labour has moved out of agriculture mainly into industrial employment. But in the preceding period the labour market was stagnant and service occupations absorbed the majority of the migrants. Between 1896 and 1936 the agricultural labour force decreased by 1.5 million, while the total labour force increased by 0.5 million, so that there was a net addition of 2 million workers to the non-agricultural labour force, of which 88 per cent. went into service occupations and only 15 per cent. into industry.² In the inter-war years industrial employment contracted, while employment in the services sector continued to expand, and the services sector grew more rapidly than national income per head:


The normal process of long-term growth was thus replaced by a transformation which did not raise average output per man. As a result, retail trade and other service activities have been over-manned and divided into an excessive number of independent units.¹

Consequently the benefits of rural-urban migration in bringing about a more economic distribution of the labour force have been much smaller than they were in countries where labour moved into higher productivity sectors; economic growth was not commensurate with the rate and scale of occupational change. It is for this reason that the effects of the rural exodus in France have long been a subject of controversy. The push factors—contracting employment and a downward trend in agricultural incomes—were strong because aggregate demand for food in the internal market did not increase. The pull factors—higher earnings and growing employment in industry—were weak, until the industrial expansion of recent years.

Factors Influencing the Movement

The continuous fall in agricultural employment resulting mainly from gradual contraction of the area under cultivation has been the main long-term push factor. From the last quarter of the nineteenth century onwards, French agriculture underwent a process of conversion from grain farming to dairy and livestock production, but mainly by means of extensification, and with a much lower degree of intensification than took place in the Netherlands and the Scandinavian countries. Arable land was converted to pasture or abandoned to rough grazing; between 1891 and 1951 the arable area declined by 25 per cent. Over the 1900-50 period there was a slight increase in gross agricultural output.²

In addition to this main push factor, the conditions of agricultural work and the inferior living and working conditions of the rural community have certainly played a part in the rural exodus. Bad housing conditions have influenced the decision to move, particularly among women and younger workers. Long hours of work are stressed by many investigations as a decisive influence, affecting farmers’ families as well as hired workers. In the regions where technical progress has been slow, French farmers and their families have thus tended to overwork in order

to compensate for their lack of capital and economise in the employment of hired labour. The introduction of holidays with pay in industry was therefore an additional factor encouraging migration in the late 1930s.

As in all countries, the rural community suffers from social disadvantages as compared with the city. Possibly its comparative educational disadvantages are not greater than elsewhere, but perhaps they loom larger in social evaluation. Rural depopulation has tended to aggravate the position, since rural communes become too small for the provision of adequate schools.

Two factors have tended to discourage migration: one is the advantage in taxation enjoyed by farmers, which adds to the benefits of retaining farm property, and the other is a more imponderable attachment to the land, as part of a pattern of behaviour in which to be "king in one's own kingdom" is regarded as an end desirable in itself, and as an insurance against insecurity which has proved its reality in two world wars.

**Effects of the Movement**

One of the main effects of the movement of labour out of agriculture has been a very gradual change in the composition of the labour force. While the movement has included not only hired workers but also farmers and members of farm families, over the long period the decline in the number of hired workers has been more rapid than that in the number of farmers and their families.¹ Three-fourths of the active farm population in 1954 were farmers and their families, and one-fourth were hired workers. Such evidence as is available for recent years, however, suggests that members of farm families are leaving agricultural employment almost as rapidly as hired workers.²

Farms, in the meantime, have gradually grown fewer and larger. The total number of farms over 1 hectare in area declined from 3.5 to 2.2 million between 1882 and 1948, and the number and area of very small farms (from 1 to 5 hectares) have decreased considerably. Of the total area in holdings in 1948, the proportion taken up by different size groups was as follows: 1 to 10 hectares, 16 per cent.; 10 to 20 hectares, 22 per cent.; 20 to 50 hectares, 32 per cent.; and over 50 hectares, 30 per cent. Large farms are concentrated mainly in the north, small farms in the

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¹ Comparison with 1954 is difficult because of the change in census methods. There is, however, no doubt that the decline in hired labour over the long period has been much greater than the decline in family labour. In 1882 hired workers numbered 3.5 million, as compared with 1.2 million in 1954, a decline of 65 per cent.

² Estimates show that the rate of decline between 1954 and January 1957 was almost the same in the two groups (see "La population active française au 1er janvier 1957", op. cit., p. 118).
West and in the Mediterranean region. Over the country as a whole, there is no shortage of land, though there are regions where farms are too small for efficiency and subsistence.

All regions in France have been affected by the rural exodus, but to varying degrees. Comparison for the period 1896-1946 shows that the largest decreases in the active agricultural population, amounting to nearly 50 per cent., occurred in the north-east and the Alps, the richest and poorest regions, while in Brittany and the Mediterranean region the decrease was only 20 per cent.

Two broad types of economic change associated with migration can, however, be distinguished. Agriculturally, France is divided into two parts, the northern region (including the Paris basin), where less than 30 per cent. of the total population lives by agriculture, and the rest of the country, where the proportion ranges between 30 and 50 per cent. In 68 departments, all south of a line joining Havre and Geneva, nearly half the population is occupied in agriculture.

In the more industrial parts of France (i.e., the northern regions), the proximity of industrial and urban centres has represented a strong pull factor. These are also regions with good soil, conveniently located markets, and a highly developed road and rail network. The reduction of the labour force in agriculture has been accompanied by investment of capital in machinery and general farm improvement, and by the growth of large commercial farms employing hired labour. In the north, levels of land and labour productivity are almost twice as high as in the poor regions of the south-west and south-east. The eastern region also has a high level of labour productivity because, although soils are poorer, the movement out of agriculture has greatly reduced the density of the farm population. In these regions the effects of movement have evidently been beneficial, since the good soils are more intensively cultivated and the labour force is more efficiently used. The agricultural census of 1956 shows that in these regions the average farm size exceeds 25 hectares, while the average size for France is 14 hectares. The composition of the labour force differs, hired labourers accounting for 20 to 30 per cent. as compared with less than 10 per cent. in the south.

In the agricultural half of France, on the other hand, it would appear that the reduction of the labour force has in some regions not gone far enough to relieve pressure on the land, while in others it has not brought much benefit to the farm population because it has not been accompanied by sufficient investment of capital to raise the level of productivity. The west, including Brittany, suffers from an acute shortage of land: farm sizes are much below the national average, as a result of subdivision, and there is much surplus labour.
In the south-west and south-east the reduction of the agricultural labour force has resulted in more extensive cultivation. Rural depopulation has led to the abandonment of cultivation in parts of the Alps. In the extreme south-west farms have been left vacant and land has gone out of cultivation. In so far as poor land has been abandoned or converted to pasture, these changes indicate better land use.\(^1\) Pasture farming is, however, a neglected branch of agriculture, and the level of land and labour productivity in regions where family farming predominates remains low, although the average farm is not too small for full-time family farming. In most of the south-western departments the average ranges from 12 to 17 hectares, while in the south-east and Mediterranean area farms are generally smaller, although there is much regional variation.\(^2\)

So far as these regions are concerned, the rural exodus has resulted in an increase in the supply of land per head as well as in the size of farms; to this extent it has had beneficial effects, although the shortage of capital has prevented better utilisation of the land and of the remaining manpower.

**Current Problems**

Since the initiation in 1946 of the “plan for the modernisation and equipment of France” (generally known as the Monnet Plan) the question of the need for further reduction in the agricultural labour force has divided opinion. Economists and agricultural experts feel quite strongly that there is a great excess of labour on the land, while political and official circles tend to deny the need for large-scale occupational change.\(^3\) Two major arguments for further reduction of the agricultural labour force are the need for greater farming efficiency and a limited market for farm produce. As opposed to agricultural experts who hold that cost reductions achieved by more efficient farming would be large enough to widen the market, economists argue that the present rate of increase of labour productivity in agriculture is already higher than the prospective

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\(^1\) DUMONT (*Voyages en France d'un agronome*, op. cit., pp. 50 ff.), however, shows that the abandonment of marginal land does not always promote the technologically best land use, quoting among other examples that of the upper Queyras region in the Alps, where all of the ten farmers in a hamlet abandoned their arable farms, and with the aid of capital accumulated through war profits settled in other districts, but retained their holdings in the mountains, jointly leasing them to a shepherd for pasture. This form of land use will destroy fertility because the land is too dry for permanent grazing and should be afforested.


rate of increase of aggregate demand. It follows that France must either become an exporter of agricultural produce or go in for more extensive farming, or both. Since the prospects for expanding exports are limited by high costs of production, the necessity of a further reduction in the labour force is evident in any case, for without such reduction it will be impossible to secure a higher level of income and higher living standards for the farm population.

The most important question at present, however, concerns the geographical distribution of the reduction of the labour force rather than the over-all rate of movement. Regional lack of balance is so striking a feature in the French economy that it is indeed unrealistic to discuss the need for a more economic distribution of the total labour force without reference to the need for a more economic distribution of manpower between different regions. In some regions, particularly the west, a much higher rate of movement is needed than in others.

Since the Second World War, the contrasts between rich and poor farming regions (roughly demarcated by the Geneva-Havre line) appear to have grown greater. Agricultural policy has in part been responsible for the growing disparity:

... One of the tragedies of French agriculture is that the rich half of the country grows richer while the poor half grows poorer. Although a coherent farm policy should aim at equalising conditions of production the contrary has been achieved.

The reorientation of price policy since 1957 may assist the low productivity regions, where there is great scope for the improvement of pasture farming, provided that regional land use plans are put into force. But farm policy has not been the only reason for the rapid rise in productivity in the rich regions. Prosperity has favoured capital investment, and so is cumulative in its effects. Most of the tractors and combines are concentrated in the north (though very recently some departments of the south-west have made progress); and the consumption of fertilisers per hectare in the north is higher than in the inter-war years, while in most departments of the south it is lower.

Further reduction in agricultural manpower is more likely to affect these prosperous regions, already well equipped with capital, and is less likely to affect the surplus farm population in the less favoured regions. The need for a high rate of migration is most evident in the west, parti-

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3 Ibid., pp. 125 ff. and 138.
cularly Brittany. This region generally has good soils and high yields per acre, but a low level of output per man, because the density of the farm population is extremely high. Small farms, much fragmentation, and high land prices are the chief obstacles to agricultural progress. The average age of the agricultural population is low in comparison with the regions of the south, and in some departments the rural population has a high birth rate. Without industrial decentralisation, the rate of rural-urban migration in this region is not likely to be high enough to relieve pressure on the land and enable an increase in farm sizes.

In the south-west and south-east, where family farming is predominant, soils are poorer and yields lower. Low productivity is due to a shortage of capital and extensive farming in fairly large family farms. The proportion of old people in the farm population is exceedingly high. Taking the French agricultural labour force as a whole, for every 100 workers in the 35 to 54 age group there are 68 workers over 55. In most of the departments of the south, the proportion is above the national average. In conjunction with the low birth rates which prevail in most of this region, the movement of labour out of agriculture will tend to raise the proportion of the higher age groups, and so may tend to hasten the cumulative effects of what a French economist has described as "economic anaemia".

Thus a continuance of the rural exodus, in isolation from other measures, is not likely of itself to raise living standards and efficiency in the poorest regions, since an over-all quantitative reduction is likely to affect most the regions which least need a reduction in manpower. In recent years a new approach to the problems of regional balanced employment has emerged. Industrial decentralisation has been encouraged on a large scale during the past few years and its results in absorbing manpower in "underdeveloped" regions are beginning to be felt. Another practical consequence of the new approach is the provision of official aid for migration from the overpopulated regions to the underpopulated. Action so far has been on a small scale.

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3 From 1949 to the end of 1956 the number of migrants settled with official help amounted to 4,497 families and 23,745 people. Farmers from Brittany have been resettled in the south-west, on vacant farms in Lot-et-Garonne, Tarn-et-Garonne, Gironde and Les Landes, with good results (P. Legendre: "Aperçus sur les incidences économiques et sociales des migrations rurales", in Economie rurale, op. cit., pp. 31-38).
WHY LABOUR LEAVES THE LAND

FEDERAL REPUBLIC OF GERMANY

Farm Population and Agricultural Labour Force Trends

Table 18 illustrates trends in the total and agricultural population and in the labour force in Germany since 1882.

TABLE 18. GERMANY: POPULATION AND LABOUR FORCE (TOTAL AND AGRICULTURAL), 1882-1955 (Thousands)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total population</th>
<th>Agricultural population</th>
<th>Total labour force</th>
<th>Agricultural labour force</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Thousands)</td>
<td>Absolute figures</td>
<td>Percentage of total</td>
<td>Absolute figures</td>
</tr>
<tr>
<td>1882</td>
<td>40,165</td>
<td>16,029</td>
<td>39.9</td>
<td>—</td>
</tr>
<tr>
<td>1895</td>
<td>46,360</td>
<td>15,521</td>
<td>33.5</td>
<td>—</td>
</tr>
<tr>
<td>1907</td>
<td>55,598</td>
<td>14,996</td>
<td>27.0</td>
<td>—</td>
</tr>
<tr>
<td>1925</td>
<td>63,181</td>
<td>14,434</td>
<td>22.8</td>
<td>32,009</td>
</tr>
<tr>
<td>1933</td>
<td>66,029</td>
<td>13,715</td>
<td>20.8</td>
<td>32,296</td>
</tr>
<tr>
<td>1939</td>
<td>69,314</td>
<td>12,262</td>
<td>17.7</td>
<td>34,269</td>
</tr>
<tr>
<td>1950</td>
<td>50,048</td>
<td>7,007</td>
<td>14.7</td>
<td>22,074</td>
</tr>
</tbody>
</table>

Source: Bundesministerium für Ernährung, Landwirtschaft und Forsten: Statistisches Handbuch über Landwirtschaft und Ernährung der Bundesrepublik Deutschland, Berichte über Landwirtschaft, 164. Sonderheft (Hamburg and Berlin, 1956).

While in 1882 the farm population represented 40 per cent. of the total population, in 1955 its share had declined to 13 per cent. The agricultural labour force, for which comparable statistical data are available only since 1925, declined in a like proportion, although its ratio to the total labour force remained much higher than that of farm population to total population. In 1925 the share of agricultural employment in total employment amounted to 30.5 per cent.; by 1955 it had fallen to roughly 20 per cent. Despite this considerable reduction in the agricultural labour force, farm production and labour productivity have steadily increased, as is shown by the index of agricultural production per unit of land which, taking 1935/36-1938/39 as base period, rose from 44 in 1881/82-1884/85 to 120 in 1952/53-1954/55.

This is explained by the fact that, in contrast with other occupational groups, women and elderly persons on family holdings in general assist the farmer in his work, and are therefore included in the agricultural labour force even though they do not work on a full-time basis.
The size and the composition of the present agricultural labour force are shown in table 19.

**TABLE 19. FEDERAL REPUBLIC OF GERMANY: FAMILY AND NON-FAMILY PERMANENT AND NON-PERMANENT AGRICULTURAL LABOUR FORCE, 1957/58**

*(Thousands)*

| Sex     | Family | | | | Non-family | | | |
|---------|--------|+| | | Permanent | Non- | | | Permanent | Non- |
|         | Total  | Permanent | Non- | Total  | Permanent | Non- | | | Permanent | Non- |
| Male    | 2,246.0 | 1,397.0 | 849.0 | 538.9 | 330.7 | 208.2 |
| Female  | 2,547.0 | 1,911.5 | 635.5 | 512.8 | 181.5 | 331.3 |
| Total   | 4,793.0 | 3,308.5 | 1,484.5 | 1,051.7 | 512.2 | 539.5 |


The table shows that in 1957/58 the permanent agricultural labour force totalled 3.8 million persons, including 3.3 million family and 0.5 million non-family workers. Women represent an unusually high proportion of the farm workers; those permanently employed number 2.1 million, or 55 per cent. of all workers permanently employed in agriculture.

Recent changes in the labour force on holdings larger than 0.5 hectare are shown in table 20.

**TABLE 20. FEDERAL REPUBLIC OF GERMANY: TRENDS IN THE SIZE OF THE AGRICULTURAL LABOUR FORCE ON HOLDINGS LARGER THAN 0.5 HECTARE 1950/51-1957/58**

*(Thousands)*

| Year       | Family labour | | | | Wage earners | | | | | | | Total |
|------------|---------------|+| | | Permanent | Non- | | | Permanent | Non- | | | |
|           | Permanent | Non- | | | Permanent | Non- | | | Permanent | Non- | | | |
| 1950/51.  | 4,380 | 1,180 | | | 766 | 450 | | | 6,776 | | | |
| 1951/52.  | 4,230 | 1,210 | | | 701 | 460 | | | 6,601 | | | |
| 1952/53.  | 4,090 | 1,240 | | | 653 | 470 | | | 6,453 | | | |
| 1953/54.  | 3,935 | 1,275 | | | 613 | 485 | | | 6,308 | | | |
| 1954/55.  | 3,760 | 1,360 | | | 579 | 500 | | | 6,199 | | | |
| 1955/56.  | 3,580 | 1,450 | | | 552 | 520 | | | 6,102 | | | |
| 1956/57.  | 3,423 | 1,522 | | | 524 | 530 | | | 5,999 | | | |
| 1957/58.  | 3,309 | 1,484 | | | 500 | 539 | | | 5,832 | | | |

Source: *Bericht der Bundesregierung über die Lage der Landwirtschaft (Grüner Bericht 1959)*, Bundesrat-Drucksache Nr. 31/59 (Bonn, Bonner Universität-Buchdruckerei, 1959), p. 18.
By 1957/58 the reduction in the farm labour force amounted to 14 per cent. as compared with 1950/51. Permanently employed hired workers decreased by more than one-third and full-time family workers by nearly a quarter, while the numbers temporarily employed increased by almost 25 per cent. in the case of family workers and 20 per cent. in the case of wage earners.

Changes in labour input, expressed in man-years, are shown in table 21. It will be seen that the decrease in labour units per 100 hectares was greater on the smaller farms, amounting to more than 30 per cent. as compared with about 22 per cent. on the larger ones, which suggests that surplus labour on the smaller holdings was being absorbed into other work, and probably to a large extent into part-time employment.

### TABLE 21. FEDERAL REPUBLIC OF GERMANY: LABOUR INPUT ACCORDING TO SIZE OF HOLDINGS, 1950/51-1957/58

<table>
<thead>
<tr>
<th>Year</th>
<th>Total input (family and non-family labour force), in thousands of man-years</th>
<th>Man-years per 100 hectares</th>
<th>Farms less than 5 hectares in size</th>
<th>Farms larger than 5 hectares in size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950/51</td>
<td>3,742</td>
<td>27.9</td>
<td>57.3</td>
<td>21.5</td>
</tr>
<tr>
<td>1951/52</td>
<td>3,590</td>
<td>26.8</td>
<td>54.8</td>
<td>20.7</td>
</tr>
<tr>
<td>1952/53</td>
<td>3,461</td>
<td>25.9</td>
<td>53.0</td>
<td>20.0</td>
</tr>
<tr>
<td>1953/54</td>
<td>3,320</td>
<td>24.9</td>
<td>51.1</td>
<td>19.3</td>
</tr>
<tr>
<td>1954/55</td>
<td>3,156</td>
<td>23.7</td>
<td>47.8</td>
<td>18.7</td>
</tr>
<tr>
<td>1955/56</td>
<td>2,993</td>
<td>22.5</td>
<td>44.8</td>
<td>18.0</td>
</tr>
<tr>
<td>1956/57</td>
<td>2,845</td>
<td>21.4</td>
<td>42.4</td>
<td>17.4</td>
</tr>
<tr>
<td>1957/58</td>
<td>2,715</td>
<td>20.5</td>
<td>40.6</td>
<td>16.8</td>
</tr>
</tbody>
</table>

Source: *Bericht der Bundesregierung über die Lage der Landwirtschaft*, op. cit., p. 19.

**Relative Wages and Incomes**

The low level of labour income on the smaller farms is the main reason why farm workers desire to change their occupation; it remains one of the most intractable problems of the agrarian structure. Statistics covering some 6,000 to 8,000 agricultural holdings from 1953/54 to 1955/56 show that farm income per worker on farms under 10 hectares was 20 to 25 per cent. lower than on farms over 20 hectares, and 15 to 20 per cent. lower than on farms over 10 hectares. Labour productivity on the farms under 10 hectares has, however, risen since 1953, partly as a result of higher prices for products mainly produced on the smaller farms and partly through the reduction in surplus labour, which has allowed a rationalisation of production without additional expenditure on labour-
saving equipment. On the larger farms surplus labour has more or less disappeared, so that any further reduction in the labour force must lead to a greater use of labour-saving equipment, the costs of which counteract the rise in farm income per worker.

Under the Farm Act of 1955 a major aim of agrarian policy is to guarantee a level of income in agriculture equal to that earned in comparable occupations in rural areas. The standard level is determined annually by special investigation. Despite the very comprehensive measures of assistance provided under the so-called "Green Plan", incomes on small farms still fall below the standard. For the year 1957/58 the standard comparable income was fixed at 4,418 marks per labour unit. While the majority of the farms surveyed achieved a labour income of 3,000 to 4,000 marks—or 70 to 90 per cent. of the standard, income—per labour unit, farms under 10 hectares in southern Germany achieved only 2,500 to 3,000 marks, or 60 per cent. of the standard income. The gap between agricultural and non-agricultural wages and incomes has not been bridged, although it has been narrowed. In 1957/58 agricultural wage rates rose more than wages in industry, reducing the disparity to about 30 per cent.

Part-Time Farming

One consequence of the lower level of labour income on small farms has been some reduction in their numbers. Between 1949 and 1957 the number of farms under 5 hectares decreased by 12 per cent., and that of farms between 5 and 10 hectares by 7 per cent., while medium-sized farms in the 10-20 and 20-50 hectare size groups increased by 6 and 3 per cent. respectively. The total number of farms decreased by 140,000, or more than 7 per cent. There has therefore been some improvement in the agrarian structure, in the direction of fuller employment.

However, there is also a strong tendency for farmers to retain the farm holding and use it for supplementary income. An indication of the growth of part-time farming is the increase in the number of commuting workers who travel weekly or daily to non-farm work outside their village. Between 1950 and 1956 their number rose by 30 per cent., to a total of 4 million persons, mostly part-time farmers living in rural communities with less than 5,000 inhabitants.

1 Bericht der Bundesregierung über die Lage der Landwirtschaft (Grüner Bericht 1950), Bundesrat-Drucksache Nr. 31/59 (Bonn, Bonner Universitäts-Buchdruckerei), p. 46.

Evidence suggests that the combination of farming with other occupations is less wasteful of manpower if there is no compelling need to obtain an additional income from farming, in which case the size of the farm can be reduced¹ and members of the family are free to take up more highly paid full-time jobs. An investigation into part-time farming in southern Germany showed that total family income is lowest among farmers who continue farming on a larger scale and work only occasionally outside their holdings, suggesting that in the districts concerned the combination of agricultural and non-agricultural employment is more efficient if the scale of farming is reduced to small part-time farms or garden plots.²

Although part-time farming involves considerable wastage of time and expenditure where long-distance travel is necessary, it may nevertheless be of benefit where it enables fuller utilisation of underemployed manpower, particularly on the smaller farms.

_Changes in the Agrarian Structure_

A gradual transformation of low income and subsistence farming has been proceeding for some years in many small farm regions where non-farm employment opportunities exert a strong pull on the agricultural labour force. Although this long-term process is often hampered by various difficulties of adjustment³, it eventually results in a dual evolution: towards full-time commercial and specialised family farms of an economic size and towards small part-time and garden holdings belonging to persons who earn their main income in other occupations, but remain in their rural environment.

Another transformation is slowly taking place in the medium-sized farm groups which employ a few wage earners in addition to family labour. Formerly, these farms were able to satisfy their labour requirements by hiring relatively low-paid unmarried helpers provided with room and board by the farm household. By reason of the better conditions offered in industry, the close dependence on the farm family and the low remuneration which this type of employment relationship involved are no longer accepted. In consequence this group of farm

³ For a more detailed description of these difficulties see Kötter: "Der Einfluss der sozialen und wirtschaftlichen Differenzierung…", op. cit., pp. 35 ff.
workers is rapidly declining, so that medium-sized farms are obliged either to employ higher-paid married wage earners or to rely exclusively on family labour. However, without a change in the present size and organisation of the farms, neither alternative is feasible. A solution can therefore be found only if medium farms are enlarged sufficiently to enable them to employ better-paid married wage earners or reduced to a size which does not require the use of permanent non-family labour. The majority of medium-sized farms which, despite this necessity, attempt to maintain their traditional labour structure, today constitute the “true sore spot in the farm labour picture”.¹

In regions where supplementary or alternative employment opportunities are few, the situation is more difficult. This applies particularly to small farm communities in remote areas. Although migration has reduced the number of inhabitants, land resources are so limited that many farmers have to supplement their meagre farm income by taking up employment in forestry, village crafts and various occupations in distant towns. The result is low labour productivity, late transfer of farms to sons, little interest in introducing modern techniques, sceptical attitudes towards consolidation and vocational training and a great desire to acquire additional land where none is available. Thus social and economic life in these communities is stagnating.

Where there are few contacts with modern urban life, people are still fairly content with their lot. But this is becoming increasingly rare, and a so-called “zone of discontent” has spread, bounded on the one side by the regions where industry and agriculture are successfully intermixed and on the other by the rapidly contracting areas where no appreciable urban influences have made themselves felt.²

Continuous industrialisation and its growing spread to rural areas has thus influenced farm sizes in two ways. Small subsistence farms have either been reduced to part-time or residential holdings with a garden plot or enlarged to family farms of a more economic size. Medium and larger farms have dispensed with surplus labour and are replacing relatively unskilled unmarried workers by highly skilled married wage earners, so that the result for agriculture in general has been some improvement of the agrarian structure and of labour productivity, and also an improvement in working and living conditions of those who remained on the farms. At the same time, many of those who have left agriculture have stayed in their rural habitat, enjoying the advantages

¹ H. Priebel: Sozialprobleme der deutschen Landwirtschaft (Düsseldorf, Econ-Verlag, 1954), p. 87.
and attractions that are offered by life in the country, such as cheap housing rents, the chance of having a house and garden of their own, and a healthy environment.¹

**Government Policy**

Although these desirable trends have become stronger in recent years, there are still a number of regions where they have not yet produced their full effect—often those where the need for improvement and adjustment is greatest. Calculation of averages of agricultural income, wages and profits are to a considerable extent influenced by these relatively depressed regions.

The question therefore arises as to the methods by which farm policy can best deal with these conditions. The long-term policy objectives set out in the Farm Act of 1955 ² are to enable agriculture to contribute its share to the progressive development of the national economy, to ensure the best possible food supply for the population, to compensate agriculture for economic disadvantages, to increase farm productivity and to raise the social status of the farm population to the level prevailing in comparable occupations. These goals are to be achieved by granting temporary subsidies to improve the agrarian structure—e.g., by enlarging farms, moving them outside of crowded villages and consolidating holdings—and by policies aimed at raising productivity and improving marketing, vocational training and advisory services.

Further measures have been taken to improve the social status and vocational skills of agricultural workers, e.g. by granting housing subsidies and financial assistance to enable agricultural wage earners to attend special courses. Farm employers’ and workers’ organisations are equally aware of the need for improving the general status of agricultural workers and of the importance of vocational training for this purpose. In 1957 organisations on both sides entered into conversations with a view to setting up an “Association for the Promotion of the Farm Worker’s Profession”, the purposes of which would be to establish schools for the training of skilled agricultural workers and formulate standards for teaching and examinations, as well as to encourage the provision of agricultural advisory services for agricultural workers and ensure that they were included in government assistance measures, such as housing

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and agricultural settlement programmes.\(^1\) These objectives coincide with recent government efforts to promote the spread of industries into agricultural problem "areas" in order to facilitate technical progress and to absorb surplus manpower.

**ITALY**

The outstanding feature of Italian agriculture is the great disparity between different regions, both as concerns natural conditions and the economic and social environment of people on the land. Plain regions (of which the chief is the Po valley) take up one-fifth of the agricultural land area, while the rest is evenly divided between hilly and mountainous farming areas. Differing landscapes and latitudes condition extreme variations in climate, but as a general rule the northern part of the country tends towards a continental climate with much of the rainfall in summer, whereas the southern regions have a Mediterranean climate with dry summers.

Of still more consequence are the variations in economic and social conditions. In this respect northern and central Italy on the one hand, and southern Italy, including the islands, on the other, constitute two main regions with distinctly contrasted features. While the north\(^2\) compares with the countries of western Europe as regards economic and social conditions, the south qualifies, on most scores, as one of the world's underdeveloped areas. The north is industrialised, with a comparatively intensive and modern agriculture. In the south agriculture is the prevailing occupation, with mainly extensive farming covering large areas. In contrast with the demographic situation obtaining in the north, the birth rate and the rate of natural population increase in the south are high, creating a dramatic lack of balance between population and available resources.

Agricultural production consists mainly of plant products, livestock being of much less importance than in other western European countries. The north accounts for 65 per cent. of total gross sales of agricultural produce and for about three-quarters of total grain and livestock production. The south produces 55 per cent. of the output of wine and olive oil, while the output of fruit and vegetables (the main agricultural exports, accounting for 25 per cent. of Italy's total exports) is equally divided between the two parts of the country.

\(^1\) Rundbrief (Göttingen, Agrarsoziale Gesellschaft, e.V.), VIII/8-9, 6 Sep. 1957, p. 98.

\(^2\) For statistical purposes four regions are usually distinguished: the north, central Italy, the south and the islands. Here the term "north" refers to northern and central Italy and "south" to the following regions: Abruzzi-Molise, Campania, Apulia, Basilicata, Calabria, Sicily and Sardinia.
**Agrarian Structure**

Italian farms may be grouped into three basic types: *(a)* family farms, which are owned by the operator or leased to him on a long-term basis, *(b)* different forms of sharecropping, and *(c)* large enterprises with hired labour. In 1946 nearly 34 per cent. of the total productive land was in smallholdings run by the owners, while land leased to farm operators accounted for nearly 19 per cent. The latter system is rather more common in the south than in the north. Sharecropping (or modified forms of sharecropping) covers 25 per cent. of the total agricultural area. In the north it is usually carried out on well equipped farms worked by a family, while managerial functions are exercised by the owner. In the south sharecropping is most often carried out on small lots of land with little capital and with the work of the sharecropper as the main input, while the owner's managerial functions are reduced to a minimum.

Large farms employing hired labour are found mainly in the plains and cover about 22 per cent. of the total agricultural area. The agricultural enterprises of the Po valley range from 25 to 120 hectares in size. Production usually consists of grains, forage crops and livestock. Two-thirds of the work is carried out by permanently hired labour and the rest by temporary farmhands. In the south the typical enterprise is the very large commercial holding producing cereal crops, beef and also breeding cattle and raising sheep in migrating flocks. Labour is usually supplied by farmhands with unstable working conditions.

**Agricultural Labour Force Trends**

According to the last population census, taken in 1951, the farm population numbered 16,792,000 persons, representing 35.6 per cent. of the total population. Before the war, agriculture's share in the total population was 44.5 per cent. Table 22 shows trends in the farm labour force from 1901 to 1957.

The census results for 1951 indicate that 30 per cent. of the agricultural labour force were self-employed persons; 32 per cent. were wage earners, 36 per cent. were family workers, and the rest were administrative and salaried staff. Figures for more recent years indicate that the decrease in the agricultural labour force registered between 1955 and 1957 is due mainly to a decrease in the number of farm operators and permanently employed family workers, as shown in table 23.

The category described as "casual workers" in table 23 consists mainly of female workers engaged in occasional or seasonal work. The number of males in this category was 200,000 in 1954 and 166,000 in 1957.
### TABLE 22. ITALY: AGRICULTURAL LABOUR FORCE, 1901-57

*(Thousands)*

<table>
<thead>
<tr>
<th>Date of inquiry *</th>
<th>Males</th>
<th>Females</th>
<th>Total</th>
<th>Agricultural as percentage of total labour force</th>
</tr>
</thead>
<tbody>
<tr>
<td>February 1901</td>
<td>6,390</td>
<td>3,120</td>
<td>9,510</td>
<td>59.8</td>
</tr>
<tr>
<td>June 1911</td>
<td>6,198</td>
<td>2,973</td>
<td>9,171</td>
<td>56.1</td>
</tr>
<tr>
<td>December 1921</td>
<td>7,100</td>
<td>3,058</td>
<td>10,158</td>
<td>56.2</td>
</tr>
<tr>
<td>April 1931</td>
<td>6,621</td>
<td>2,735</td>
<td>9,356</td>
<td>51.0</td>
</tr>
<tr>
<td>April 1936</td>
<td>6,653</td>
<td>2,431</td>
<td>9,086</td>
<td>48.2</td>
</tr>
<tr>
<td>November 1951</td>
<td>6,228</td>
<td>2,033</td>
<td>8,261</td>
<td>42.2</td>
</tr>
<tr>
<td>September 1952</td>
<td>5,820</td>
<td>2,696</td>
<td>8,516</td>
<td>43.2</td>
</tr>
<tr>
<td>May 1953</td>
<td>5,778</td>
<td>2,455</td>
<td>8,233</td>
<td>41.0</td>
</tr>
<tr>
<td>May 1954</td>
<td>5,610</td>
<td>2,647</td>
<td>8,257</td>
<td>39.5</td>
</tr>
<tr>
<td>May 1955</td>
<td>5,259</td>
<td>2,407</td>
<td>7,666</td>
<td>36.7</td>
</tr>
<tr>
<td>April 1956</td>
<td>5,010</td>
<td>2,642</td>
<td>7,652</td>
<td>35.5</td>
</tr>
</tbody>
</table>

Source: census and sample survey data published by the Central Institute of Statistics.

* The labour force consists of employed persons 10 years of age or over as well as of unemployed persons and other categories temporarily unable to work at their previous occupation. In so far as the sources of information (censuses and sample surveys) and dates of inquiry are different, the results given above are not strictly comparable from year to year. * Data for 1901-51 based on census results, and those for 1952-57 on sample surveys.

### TABLE 23. ITALY: AGRICULTURAL LABOUR FORCE, BROKEN DOWN BY STATUS, 1954-57

*(Thousands)*

<table>
<thead>
<tr>
<th>Year</th>
<th>Self-employed</th>
<th>Family members permanently employed</th>
<th>Wage earners permanently employed</th>
<th>Others</th>
<th>Casual workers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1954</td>
<td>2,492</td>
<td>2,512</td>
<td>1,925</td>
<td>53</td>
<td>1,251</td>
<td>8,233</td>
</tr>
<tr>
<td>1955</td>
<td>2,510</td>
<td>2,696</td>
<td>1,784</td>
<td>44</td>
<td>1,223</td>
<td>8,257</td>
</tr>
<tr>
<td>1956</td>
<td>2,329</td>
<td>2,264</td>
<td>1,948</td>
<td>50</td>
<td>1,075</td>
<td>7,666</td>
</tr>
<tr>
<td>1957</td>
<td>2,343</td>
<td>2,238</td>
<td>1,842</td>
<td>54</td>
<td>1,175</td>
<td>7,652</td>
</tr>
</tbody>
</table>

Source: *Note e relazioni* (Rome, Istituto Centrale di Statistica), No. 1, Mar. 1958, pp. 52 and 65.

Since the Second World War there has been a persistently high level of unemployment. Between 1950 and 1957 registered unemployment varied between 9 and 11 per cent. of the total labour force, which means that normally 1.7 to 2 million out of the nearly 20 million persons constituting the active population were without employment. Between 400,000 and 500,000 of all unemployed job applicants in 1952-57 were classified as agricultural workers.
Italian agriculture is characterised by large-scale hidden unemployment. A sample survey made by the Central Statistical Institute in 1952 showed that the average number of days worked by agricultural workers in all categories during the preceding year was 228. The figure was higher for regular wage earners (284 days), sharecroppers (258 days) and independent farmers (248 days), but lower for day labourers (161 days). An attempt made by the National Institute of Farm Economics to establish an annual balance sheet between manpower available and manpower used shows that Italian agricultural workers are workless or unproductively employed for 94 days out of the 270 to 280 working days available in a year.

Factors Influencing the Movement out of Agriculture

In contrast to other western European countries, the movement of people out of agriculture in Italy in recent years has been influenced by the existence of urban and rural unemployment and underemployment. In spite of unemployment in agriculture and underemployment for a large proportion of the active agricultural labour force, the rate of decrease is comparatively low. Assuming that the census figures for 1936 and 1951 are comparable, the agricultural labour force decreased by 800,000 between these two years, i.e. at an annual rate of about 0.6 per cent. In recent years, however, the rate of decrease has been much higher. According to the official survey figures (table 22) the total labour force decreased by nearly 1 million between 1952 and 1957, representing an average decrease of more than 2 per cent. per year (a rate which would be equivalent to that of Sweden in the 1930s).

The main obstacle to a more rapid redistribution of manpower between agriculture and other sectors is obviously the limited capacity of industry and services to absorb surplus labour, as revealed by the unemployment figures. As regards the relative income position, it would appear that there has been some improvement in recent years in incomes per worker in agriculture as compared with other sectors. The share of agriculture in the national income in 1955 was 26.4 per cent., as compared with about 30 per cent. before the war, while agriculture's share in the total active population declined from about 50 per cent. in the inter-war period to about 40 per cent. in 1954-55. However, owing to the great disparity in incomes between the north and the south, average sector income ratios are not of great significance in relation to the movement of labour out of agriculture.

The trend in agricultural wages as compared with wages in industry is shown in table 24.
TABLE 24. ITALY: WAGES IN AGRICULTURE AND IN INDUSTRY, 1920-56

(Liras)

<table>
<thead>
<tr>
<th>Year</th>
<th>Daily wages of male agricultural workers</th>
<th>Daily wages in industry</th>
<th>Agricultural wages as percentage of industrial wages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1920</td>
<td>10.56</td>
<td>14.27</td>
<td>74</td>
</tr>
<tr>
<td>1930</td>
<td>11.78</td>
<td>18.15</td>
<td>65</td>
</tr>
<tr>
<td>1935</td>
<td>9.05</td>
<td>14.30</td>
<td>64</td>
</tr>
<tr>
<td>1940</td>
<td>13.70</td>
<td>20.22</td>
<td>68</td>
</tr>
<tr>
<td>1945</td>
<td>131.00</td>
<td>81.93</td>
<td>160</td>
</tr>
<tr>
<td>1950</td>
<td>741.00</td>
<td>1,028.00</td>
<td>72</td>
</tr>
<tr>
<td>1953</td>
<td>856.00</td>
<td>1,225.00</td>
<td>70</td>
</tr>
<tr>
<td>1956</td>
<td>1,005.00</td>
<td>1,357.00</td>
<td>77</td>
</tr>
</tbody>
</table>


Agricultural wages appear to have been more stable in their relationship to wages in industry than is the case in other countries reviewed in this chapter.\(^1\) Thus the fall which occurred in most other countries during the thirties was not so pronounced in Italy. One factor likely to affect agricultural earnings negatively in comparison with industrial wages is the degree of underemployment, which is greater in agriculture than in industry, with the result that the yearly agricultural wage probably compares less favourably with the corresponding industrial wage than the daily wage.

**Farm Employment and Government Policy**

In addition to unemployment in the non-agricultural sectors, a number of special factors prevent a rapid redistribution of manpower. Laws passed in April 1931 and July 1939, and still valid, have the effect of making it difficult for people to move to a new job in another region where there is unemployment (i.e., in almost any region). As long as these laws are in force, the authorities cannot assist in the movement of surplus labour, for example from southern agriculture to northern industries (even though such movement has been taking place, and there has been a continuous drift of inhabitants from the south to the north and the centre\(^2\).). A Legislative Decree issued in 1947\(^3\) laid down regulations

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\(^1\) The peculiar relationship in 1945 was due to the special circumstances of the immediate post-war period.

\(^2\) The 1951 population census showed that out of a total of 29 million inhabitants in the north, nearly 1 million were born in the south, while out of 17.5 million inhabitants in the south, 220,000 were born in the north.

by which employers were required to employ a minimum number of workers, depending on the region and on the type and size of farm, in order to maintain a higher level of employment. Even though the social motives behind this measure were easily intelligible, it obviously retarded a redistribution of manpower and hindered agricultural reorganisation. The Decree was declared unconstitutional by the Supreme Court on 30 December 1958.¹

In recent years, constructive manpower planning has begun to replace legal regulation of this kind. Such measures are embodied in various schemes for land reform and agricultural development and in the Vanoni Plan for co-ordinated development of different sectors, which aim at increasing employment in general and at raising the economic level of the south.

Even though agricultural production has increased rapidly in recent years (in 1955 exceeding the 1938 output by 24 per cent.), this increase can only bring a slight improvement in the farm employment and income picture. The south requires special policies to accelerate the rate of general economic development and also to reorganise agriculture and increase output. Among measures affecting agricultural employment is the land reform legislation of 1950, which provides for the partial expropriation of large estates in certain provinces and the reclamation of land followed by allocation to peasant proprietors. The implementation of these laws is entrusted to special public agencies operating under the control of the Ministry of Agriculture, with funds allocated partly from the budget and partly from the assets of the Fund for the Development of the South (Cassa per il Mezzogiorno). Between 1951 and 1956, 546,000 hectares of land were reclaimed and allocated to 101,000 families, mainly in the south. The reclamation and allocation of land under the reform is expected to result in greatly intensified agricultural production and a considerable increase in farm employment. Before the reform, farm employment in the territories concerned was estimated at 20 million man-days a year; when the reform has been completed, with the accompanying land reclamation scheme, the figure is expected to reach between 55 and 60 million man-days.²

The main scheme for the general economic development of the south was initiated in 1950, when the Fund for the Development of the South was established. The Fund is a public agency created with a view to

promoting public and private investment in this part of Italy. The ultimate object is the creation of basic services and facilities to permit economic expansion and relieve economic and social depression. According to the Act establishing it, as subsequently amended, the Fund is to carry out an investment plan involving a total amount of 1,280,000 million liras over the 12-year period extending from 1950 to 1962. Projects already completed include the regulation of entire catchment basins, reafforestation of mountain slopes for the protection of agriculture in the valleys, building of aqueducts and roads and the electrification and expansion of some important railway lines. Of the funds provided, 70 per cent. are earmarked for works and loans to promote the development of agriculture. The programme has been termed one of “pre-industrialisation” in the sense that it aims at exploiting local resources and developing the traditional economic activities of southern Italy, although its ultimate object is to lay the groundwork for a structural transformation of the southern Italian economy through the setting up of industrial centres. Specifically, it aims at increasing the proportion of public investment in the south to 43 per cent. of the national total, as compared with a proportion of one-third before the Fund started its work. However, even though public land reclamation schemes (including also those undertaken under the land reform programme) and irrigation projects have considerably increased the volume of employment in the south, no substantial narrowing of the gap between levels of net income per inhabitant in the north and in the south can yet be discerned.

Government policy on behalf of agriculture has also included a 12-year plan for agricultural development, drawn up in 1952. Under this plan a fund of 25,000 million liras was set up to provide loans for private persons for purposes of agricultural improvement, e.g. construction of farm buildings, irrigation works and the like.

In 1954 Italy’s full employment policy was inaugurated by the adoption of a “Ten-Year Scheme for the Development of Employment and Income”, generally known as the Vanoni Plan. It aims at maintaining a 5 per cent. annual rate of increase in the net income produced by the Italian economy and at creating enough new non-agricultural jobs to absorb both the present unemployed and the future increase in the labour force during the ten-year period which it covers. It is estimated that 4 million new jobs will be created, of which 3.2 million should represent an actual increase in employment, while 800,000 should provide for the reabsorption of the workers who would become unemployed as a result of technical progress if adequate additional investments were not made to reabsorb them. The plan provides for the transfer of 1 million persons from agriculture to industry and services, and em-
phasises the importance of rural non-farming activities (for instance, maintenance of farm machinery and food processing and canning industries) as means of relieving rural unemployment. Finally, the plan calls for an increase in the competitive capacity of Italian production.

The implementation of the plan is intended to bring about a change in the proportion of national income from different sectors and a shift in the balance of occupations. Agriculture's share in the national income is to be reduced from 26 per cent. in 1954 to 20 per cent. in 1964, and its share in total employment to decline from 41 per cent. to 33 per cent. So far as the proportion of the farm labour force to the total labour force is concerned, this latter figure was already reached in 1958, but the total volume of unemployment (including agriculture) remained large, amounting to 1,755,000 persons, or 9 per cent. of the total labour force, as compared with 1,958,680, or 10 per cent., in 1954.

THE NETHERLANDS

Three features differentiate the shift of labour out of agriculture in the Netherlands from that taking place in other western European countries—the rapid population increase, high population density, and intensive land use. In the last half-century, the population has doubled. The rate of natural increase from 1950 to 1955 was 1.2 per cent. annually, a very high rate by comparison with other western European countries. Farm population density (5 acres of cultivated land per head) is also high by comparison with the rest of western Europe. Thus the demographic situation is more reminiscent of many less developed countries than of other countries dealt with in this chapter. The prevalence of very small farms and the continued splitting up of holdings reflect these conditions.

Nonetheless, the pressure of farm population has not created a problem of low productivity and income, as is usually the case in less developed countries, because the level of productivity per agricultural worker depends not only on farm population density but also on the technical methods of production. Agriculture has been able, over the past half-century, to offer a higher standard of living to a growing agricultural labour force, chiefly as a result of increasingly intensive land use, and, to a much lesser extent, land reclamation. Land productivity is the highest in Europe. Milk yields and fertiliser consumption are the highest in the world. Output per farm worker is nearly as high as in the United Kingdom (where the density of the agricultural population is very much lower). The standard of living of the farm population is high. Intensive use of the small and slowly decreasing agricultural land
area of 2.3 million hectares ¹ enables Dutch agriculture to feed a large part of the rapidly increasing population of over 11 million more than adequately while occupying only about 12 per cent. of the total labour force, and to export about two-fifths of its output. In 1956 farm produce represented 36 per cent. of all Dutch exports, and the value of the produce thus exported exceeded that of agricultural imports by 60 per cent.

The high level of efficiency in land use is the result of a long-term policy which has favoured capital investment in agriculture. Like Denmark, the Netherlands in the late nineteenth century responded to the impact of competition from foreign grain not by protecting its agricultural economy, but by converting it to a dairy and meat products industry using imported feeding stuffs. In this process the co-operative movement played a large part in raising the volume and quality of farm production and in establishing food processing industries.

Long-term policy has also aimed at increasing the land area. Between 1900 and 1950 land reclamation resulted in a net 360,000-hectare increase in the cultivated area; 60,000 were recovered from the sea and 480,000 were reclaimed from waste land, while 180,000 were lost to urban uses. Reclamation of land from the sea is still in progress. When the Zuyderzee reclamation project has been completed in 1975, the present land area will have been increased by 220,000 hectares, or 7 per cent. The Zuyderzee reclamation scheme is the first stage in the closing of the Dutch coast, the second being the Delta scheme, to be completed between 1955 and 1980, and the third the shallows reclamation, for which no date has yet been set.

Agricultural Labour Force and Farm Employment Trends

During the present century, the labour force in agriculture has increased by one-third, the rate of movement into other occupations not having been fast enough to offset the effect of the high rural birth rate. The agricultural labour force continued to increase in numbers up to 1947, although its share in the rapidly growing total labour force declined, as illustrated by table 25.

Since 1947, when the last population census was taken, the permanent male agricultural labour force is estimated to have declined by about 20 per cent. Table 26 shows the estimated reductions. Seasonal workers employed for less than half the year, forestry workers and persons temporarily unemployed are not included.

¹ The agricultural land area in 1947 was 2,314,687 hectares, as compared with 2,305,883 in 1956.
TABLE 25. NETHERLANDS: TOTAL AND AGRICULTURAL LABOUR FORCE, 1849-1947  
(Thousands)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total labour force</th>
<th>Agricultural labour force</th>
<th>Agricultural labour force as percentage of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1849</td>
<td>1,252</td>
<td>543</td>
<td>43.4</td>
</tr>
<tr>
<td>1889</td>
<td>1,653</td>
<td>526</td>
<td>31.8</td>
</tr>
<tr>
<td>1899</td>
<td>1,924</td>
<td>623</td>
<td>29.6</td>
</tr>
<tr>
<td>1920</td>
<td>2,719</td>
<td>639</td>
<td>22.9</td>
</tr>
<tr>
<td>1930</td>
<td>3,179</td>
<td>758</td>
<td>20.1</td>
</tr>
<tr>
<td>1947</td>
<td>3,866</td>
<td>758</td>
<td>19.6</td>
</tr>
</tbody>
</table>


TABLE 26. NETHERLANDS: DECLINE IN THE PERMANENT MALE AGRICULTURAL LABOUR FORCE, 1947-56

<table>
<thead>
<tr>
<th>Occupational category</th>
<th>1947</th>
<th>1956</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmers with holdings over 1 hectare</td>
<td>197,604</td>
<td>186,637 1</td>
</tr>
<tr>
<td>Horticulturists</td>
<td>38,982</td>
<td>38,865 1</td>
</tr>
<tr>
<td>Farmers' sons</td>
<td>110,201</td>
<td>98,600</td>
</tr>
<tr>
<td>Hired workers</td>
<td>185,000 8</td>
<td>107,000 8</td>
</tr>
<tr>
<td>Total</td>
<td>531,787</td>
<td>431,102</td>
</tr>
</tbody>
</table>

1 1955 figures.  
8 Workers employed for more than half the year.

Source: for 1947, figures published by the Netherlands Central Bureau of Statistics; and for 1956, by the Institute of Farm Economics.

The total volume of agricultural employment measured in man-years declined from 536,000 in 1950 to 486,000 in 1956—i.e., by 9.3 per cent.—while total employment rose from 3,838,000 to 4,253,000 during the same period. Agricultural employment in man-years declined from 14.2 per cent. of total employment in 1949 to 11.5 per cent. in 1956. Expressed as an index number, with 1949/50-1952/53 as the base period, the farm employment volume declined from 124.9 in 1938/39 to 92.0 in 1956.

Factors Influencing the Movement out of Agriculture

As in other western European countries, the main factor determining the rate of movement of labour out of agriculture in recent years has been the expansion of non-agricultural employment. Over the past half-century, the push factor of declining farm employment has played a comparatively small part in influencing migration.
Farm incomes in relation to other incomes are now in a position of parity, as indicated by comparative sector product.\textsuperscript{1} Earnings of permanent workers in agriculture now average 70 to 80 per cent. of the industrial wage level. Agricultural price policy is based on the principle of guaranteeing farmers a "sufficient" income, defined as a standard rate of remuneration for the farmer's labour and management activities, based on the rates earned by farmers who operate farms on reclaimed land as tenants of the State. In 1955/56, the standard salary was fixed at 6,400 florins for a mixed holding of 10 hectares, at 7,200 florins for a pasture farm of 18 hectares, and 8,200 florins for a mixed holding of 50 hectares. These figures are periodically revised in relation to fluctuations in the general level of wages. In the last few years production costs have risen considerably, while yields remained stable, so that farmers' incomes have tended to fall. Wages in agriculture are not much lower than the standard income of the small farmer as defined by official policy in 1955/56.

The Agrarian Structure

Small farms are the main element in the agrarian structure. Excluding holdings under 1 hectare, the number of farms decreased from a total of 197,604 in 1947 to 186,637 in 1955, and the average farm size increased slightly from 11.08 hectares in 1947 to 11.34 hectares in 1955. Smaller farms have decreased in numbers because farmers' sons are moving into industry; at the same time, medium-sized holdings continue to be subdivided. Table 27 compares the distribution of holdings by size in 1947 and in 1955.

\textbf{TABLE 27. NETHERLANDS: DISTRIBUTION OF FARMS\textsuperscript{1} ACCORDING TO SIZE, 1947 AND 1955}

<table>
<thead>
<tr>
<th>Farm sizes</th>
<th>1947</th>
<th>1955</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 5 hectares</td>
<td>33</td>
<td>27</td>
</tr>
<tr>
<td>5 to 10 &quot;</td>
<td>29</td>
<td>33</td>
</tr>
<tr>
<td>10 to 20 &quot;</td>
<td>24</td>
<td>26</td>
</tr>
<tr>
<td>20 to 50 &quot;</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>50 and over</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total . .</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

\textsuperscript{1} Excluding horticulturists.

\textsuperscript{2} See below, Chapter VII.
In the newly reclaimed and recently settled area of the north-east polder, the agrarian structure is highly rationalised. Holdings are allocated in units of 12, 18, 24, 30, 36, 42, 48 and, in exceptional cases, over 48 hectares. Labour requirements are calculated on the basis of one full-time male worker for every 12 hectares. Housing for hired workers is provided in accordance with this standard. The State retains ownership of the land, which is rented to occupiers. Subdivision is prohibited. The cost of reclamation is high, amounting to 16,000 florins per hectare; consequently, high levels of efficiency must be achieved in order to cover the capital costs.

Hired labour is a more important element in the labour force than it is in other western European countries where small-scale farming predominates. Permanent and semi-permanent male workers now represent one-quarter of the male labour force, as compared with one-third in 1947. In addition to the permanent and semi-permanent workers (i.e., workers employed for more than six months in agriculture) casual labourers are employed during the harvest season.

Farm Employment Problems and Policy

The main farm employment problem is that the present agricultural labour force is rather too large in relation both to future labour requirements and to standard income levels. This problem has three principal aspects, namely the surplus of hired workers, the surplus of farmers' sons, and the labour surplus obtaining in certain low productivity areas. The high average age of the farm population is a further factor complicating the situation.

In spite of the reduction in the agricultural labour force since 1947, the present balance between labour supply and demand in agriculture is precarious by reason of the high rate of increase of the rural population. If general employment opportunities should continue to contract, while mechanisation continues, there might be a large increase in rural unemployment. Should the labour force in agriculture again increase, standard farm income levels could not be maintained, particularly if world market prices were to continue moving downward.

This danger has, however, been anticipated. Since 1954 a new farm policy has been evolved which aims at increasing agricultural efficiency as a long-term objective and at increasing the volume of employment through capital construction projects designed for this purpose. The new policy calls for long-term investment in replanning the layout and size of farms, and in building up basic services such as roads, drainage and farm buildings. These are regarded as essential if agriculture is to
reach a level of labour productivity comparable to that of industry. Large sums have been allocated for these purposes, the total in 1956 amounting to 175 million florins of which 101 million were spent on consolidation, and the remainder on the basic services associated with it.

The principles of the reform were laid down in the Land Consolidation Act of 1954. This linked the process of consolidation of fragmented holdings with the enlargement of farms, empowering the authorities entrusted with the consolidation of a given area to buy out on a voluntary basis persons wishing to retire from agriculture, thus permitting an enlargement of holdings. The cost of compensation is borne by the State, which also contributes 75 per cent. of the cost of land consolidation. This involves complete replanning of the village and provision of buildings, drains and roads, as well as the combination of fragmented holdings. The improvement of farm housing has been the subject of special legislation.

Rents and land prices are controlled by law, with the result that private investment in land improvement schemes and buildings is no longer profitable. Consequently the State undertakes the function of increasing investment and at the same time provides off-season employment. As a long-term policy, this approach is more likely to achieve income parity for farmers than methods of price support and direct subsidy.

**Hired Workers.**

As a result of the reduction in the number of hired labourers in agriculture, and perhaps even more as a result of social legislation, the conditions of hired workers in permanent or semi-permanent employment have improved in recent years. The main problem, so far as hired labour is concerned, is the existence of seasonal unemployment among casual workers. This is most serious in the peat regions, concentrated on grain and potatoes, where only one-third of the hired labour force is permanently employed. In the regions of dairy farming and arable cultivation with more varied cropping, employment is more stable. Social security measures have done away with the financial risks involved in casual employment. Employment on land reclamation and the new capital construction projects has in recent years absorbed the majority of the casual labour force in the off season. The position of these workers is, therefore, more satisfactory than in the past, although a worsening of the general employment situation may again aggravate it.

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1 Fifty per cent. of Dutch farmers are over 50.
Although in some regions there is a surplus of farm labourers, in nearly all there is a growing shortage of skilled workers for mechanised farms. To remedy this deficiency, the Government has instituted facilities for vocational training.

**Surplus Farmers' Sons.**

As distinct from the hired workers, there is also a surplus of would-be farmers in the younger generation.

... On larger farms there are still too many farmers' sons who want to be farmers. This leads on the one hand to an undesirable splitting up, and on the other to hidden unemployment and, finally, which is also very important, to what is called vocational degradation. When, for instance, there are three sons on a farm, when they have reached the age of 30 or 40 they may come to the conclusion that they are unable to own their own farm and they may, therefore, change over into industry as unskilled workers. That is why increasing attention is being given to vocational guidance for agrarian families.¹

A recent estimate puts the number of surplus sons of farmers at 40,000, of whom 25,000 live in the sandy soil areas where productivity is generally low.

**Low Productivity Regions.**

Like several other advanced countries, the Netherlands has a problem of low productivity (or surplus labour) on marginal soils. Most of the surplus is found on small family farms in the sandy soil districts. In these districts, there is a disproportion between the area of cultivated land available and the number of people depending on it, this being the main cause of low labour performance on a great many holdings. Of the 244,000 farmers with more than 1 hectare of cultivated land, 124,000 are situated on the sandy soils. These areas comprise about 1 million hectares of cultivated land, and in 1956 employed 180,000 male workers. Nearly half the farms are less than 5 hectares in size. The reclamation of wasteland has enabled an enlargement of farm sizes and has counteracted the results of the subdivision of holdings. About 20 per cent. of the labour supply in these regions (representing 11 per cent. of the total labour force) was estimated to be surplus to requirements in 1948. Some improvement is believed to have taken place since that time as a result of outward migration, intensification and enlargement of farms. To encourage the outflow of farm labour into industry in these regions, schemes for industrial decentralisation have been put into force since 1954.

In the Netherlands the official approach to the problems of employment and income in agriculture is many-sided, far-sighted and fundamental. Policy aims at stabilising and increasing employment on schemes which improve farm efficiency; increasing the skill and mobility of farm workers; encouraging the retirement of the aged; increasing the volume of non-farm employment in low productivity regions; and providing agriculture with a capital structure which will enable it to maintain its position as a major export industry. It is because the basic demographic position is so similar to that of many underdeveloped countries that the past and present achievements of Dutch agriculture, and the new approach to the problems of employment, are of particular interest.

**Norway**

A characteristic feature of agriculture in Norway is its close integration with forestry, fishing and other occupations which provide part-time employment for a large part of the farm population. As a result, the number of persons living on farms is much larger than the number permanently engaged in agriculture.

Another typical feature is the preponderance of very small holdings. In 1949, out of 213,000 holdings with more than 0.5 hectare of agricultural land, only 15,000 had more than 10 hectares and less than 4,000 had more than 20 hectares. Up to the Second World War the number of small farms increased considerably as a result of settlement on new land and subdivision of bigger farms. In recent years holdings have tended to decrease in number owing to consolidation of small farms into larger units. More than 90 per cent. of the holdings are managed by the owners and the rest are operated by tenants.

However, in addition to land under crops, most Norwegian farmers own some forest grazing land. The average total area per farm is 30 hectares, out of which five hectares carry crops or permanent pasture and 16 hectares productive forest. Besides the regular farm forests, many farmers have rights in collective or communal forests. Three-quarters of the total forest area of the country is owned or controlled by private farmers.

*Agricultural Labour Force Trends*

Table 28 classifies the labour force in agriculture, forestry and fishing according to main source of income.
From this table it appears that the farm labour force remained comparatively stable (in the neighbourhood of 300,000) between 1900 and 1946. A small decrease took place between 1930 and 1946, followed by a sharp decline in the short period between 1946 and 1950, when the number decreased by 45,000. The share of agriculture in the total labour force decreased from 33 to 18 per cent. between 1900 and 1950, while the share of forestry and fishing remained constant.

Expressed in man-years, the labour force in agriculture has continued to decrease rapidly in recent years, as table 29 shows.

The figures in table 28 are not directly comparable with those in table 29. The former gives the number of persons with agriculture as their main occupation, whereas the latter gives actual input of labour
(e.g., allowing for part-time work both outside and within agriculture) and includes domestic work. In the case of males, however, there is a close correspondence between the agricultural labour force figure and the number of man-years worked.\(^1\) The figures indicate a slightly lower rate of decrease between 1951 and 1956 than between 1946 and 1950; this, however, may be due to differences in statistical methods. The total decrease between 1946 and 1956 was equal to 65,000 full-time male workers, or about 25 per cent. of the male labour force in 1946.

The labour force consists mainly of farmers and members of their families. The proportion of this group has increased steadily during this century, as shown in table 30.

**TABLE 30. NORWAY: SHARE OF FAMILY LABOUR IN THE AGRICULTURAL LABOUR FORCE, 1890-1950**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total agricultural labour force</th>
<th>Family workers (^1)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Absolute numbers</td>
</tr>
<tr>
<td>1890</td>
<td>314,888</td>
<td>193,280</td>
</tr>
<tr>
<td>1910</td>
<td>291,235</td>
<td>209,763</td>
</tr>
<tr>
<td>1930</td>
<td>303,975</td>
<td>228,124</td>
</tr>
<tr>
<td>1946</td>
<td>295,314</td>
<td>238,494</td>
</tr>
<tr>
<td>1950</td>
<td>250,455</td>
<td>211,237</td>
</tr>
</tbody>
</table>

\(^{1}\) Farmers and family members.

The increase in the relative importance of family labour is due to the immobility of farmers and their wives, as compared with other classes of workers. By order of mobility, hired female workers rank highest, followed by hired male workers. This trend is reflected in an increase in the number of "one-man farms". In 1955 about 140,000 farms employed no regular workers besides the farmer and his wife. In 1938 such farms numbered only 90,000. Moreover, only 11,000 farms employed permanently hired workers in 1955, as compared with 28,000 in 1938.

The majority of Norwegian farms cannot be considered even as "one-man" farms because most farmers undertake part-time work in addition to farming, as table 31 shows.

\(^{1}\) Table 28 does not give the total number of males engaged in agricultural work, as persons with agriculture as a part-time occupation are omitted. At the same time, a proportion of those registered as economically active in agriculture do part-time work in other sectors. These two factors cancel out, so that the total input of male labour in agriculture measured in man-years corresponds closely to the actual male labour force figure.
TABLE 31. NORWAY: DISTRIBUTION OF FARM OPERATORS BY AMOUNT OF TIME DEVOTED TO FARMING, 1929-56
(Percentages)

<table>
<thead>
<tr>
<th>Year</th>
<th>Full time</th>
<th>Main occupation</th>
<th>Part time</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1929</td>
<td>45.1</td>
<td>24.6</td>
<td>30.3</td>
<td>100</td>
</tr>
<tr>
<td>1949</td>
<td>40.9</td>
<td>25.5</td>
<td>33.6</td>
<td>100</td>
</tr>
<tr>
<td>1954</td>
<td>31.3</td>
<td>31.3</td>
<td>37.4</td>
<td>100</td>
</tr>
<tr>
<td>1956</td>
<td>32.2</td>
<td>30.2</td>
<td>37.6</td>
<td>100</td>
</tr>
</tbody>
</table>

Sources: censuses of agriculture for 1929 and 1949, and sample surveys for 1954 and 1956.

Farm operators with farming as their main occupation work about 80 days outside their farms, and those with farming as a part-time occupation 200 days. The most important part-time occupations are forestry in the inland regions and fishing on the coast, but crafts, construction and industry also provide employment for many small farmers. The proportion of full-time farmers increases with the size of farms, and reaches about 80 per cent. on farms with more than 10 hectares of agricultural land. In all, there are less than 70,000 full-time farmers out of a total of some 200,000 farm operators. This fact illustrates the heterogeneous employment situation of Norwegian farmers and illustrates some of the current technical and economic problems of Norwegian agriculture. It also constitutes the background of present agricultural policy.

Small farms and part-time work are in part the legacy of a subsistence economy in a country where natural conditions (particularly topography) and social institutions did not favour large agricultural properties and where access to fishing, hunting and forest exploitation was easy. They are also in part the outcome of economic development and agricultural social policy up to the Second World War, which favoured the creation of new holdings as a means of ensuring agricultural expansion and providing new employment opportunities.

Factors Influencing the Movement out of Agriculture

From the end of the 1930s a gradual change in economic outlook occurred. The basis had been laid for expansion in several fields of industrial activity; agricultural research and extension work had prepared the ground for more efficient farming. During the Second World War Norway entered a period of full employment. Up to that time, agriculture had played the role of a “buffer employment market”, providing employment during periods of economic slowdown and a manpower
reserve during periods of high economic activity. Family members, part-time farmers, and also hired workers moved in and out of agriculture according to the level of general economic activity. The decisive factor would appear to have been the employment opportunities outside agriculture, more or less irrespective of the opportunities within agriculture itself, as is indicated by changes in the wage level in agriculture as compared with that in industry and by changes in farmers' income. The relevant figures are shown in table 32.

TABLE 32. NORWAY: AVERAGE WAGES IN AGRICULTURE, FORESTRY AND INDUSTRY, 1920-56
(Norwegian crowns)

<table>
<thead>
<tr>
<th>Year</th>
<th>Daily wage rate in agriculture (harvest work) without board</th>
<th>Daily wage rate in forest work (winter) without board</th>
<th>Daily average earnings in all industries</th>
</tr>
</thead>
<tbody>
<tr>
<td>1920</td>
<td>12.71</td>
<td>13.68</td>
<td>18.69</td>
</tr>
<tr>
<td>1930</td>
<td>4.71</td>
<td>4.51</td>
<td>11.80</td>
</tr>
<tr>
<td>1940</td>
<td>6.34</td>
<td>6.70</td>
<td>15.16</td>
</tr>
<tr>
<td>1947</td>
<td>16.16</td>
<td>17.60</td>
<td>23.68</td>
</tr>
<tr>
<td>1953</td>
<td>25.24</td>
<td>27.77</td>
<td>34.24 1</td>
</tr>
<tr>
<td>1954</td>
<td>26.94</td>
<td>29.11</td>
<td>36.00 2</td>
</tr>
<tr>
<td>1955</td>
<td>28.19</td>
<td>30.78</td>
<td>38.00 3</td>
</tr>
<tr>
<td>1956</td>
<td>30.34</td>
<td>32.78</td>
<td>40.96 4</td>
</tr>
</tbody>
</table>

Sources: figures up to 1947 derived from various statistical survey results published by the Central Bureau of Statistics; later figures from Statistical Yearbook of Norway, 1957, op. cit.

1 Rate for an eight-hour day, calculated on the basis of hourly earnings.

The agriculture wage shown in table 32 is the harvest wage, which is considerably higher than wages paid to permanently hired workers, but the figures nonetheless give a rough indication of the relationship between agricultural and industrial wages. The agricultural wage reached an extremely low relative level around 1930, when it amounted to 40 per cent. of the industrial wage, and then increased after the Second World War, reaching about 74 per cent. of the average in industry by 1956.

Estimates of the total labour income of agriculture (which corresponds roughly to the total income of farm families) show an increase from about 270 million crowns in 1938/39 to 1,300 million crowns in 1956. The fact that agriculture during this period maintained its share in the national income (7 to 8 per cent.) would indicate that the farm population also increased its real income per head, since the number of people in agriculture decreased. Yet a loss of manpower continued to take place.

1 Estimated real income of a sample of farmers investigated by the Institute of Agricultural Economics of Norway shows an increase of 56 per cent. between 1939/40 and 1950/51.
during this period, indicating that factors other than relative wage and income levels influenced the change of occupation.

The main factors influencing the rate of change in the agricultural labour force since the Second World War were a higher rate of industrialisation, coinciding with rapid mechanisation of agriculture, and to a certain extent with changes in the type of farming in some areas, i.e. from milk production to grain farming. Both during the war and after there was full employment, and even a shortage of manpower in certain sectors. Heavy investments in new industry, and the expansion of hydro-electrical power and building construction would appear to have provided employment for a large part of the farm labour reserve. The number of tractors in agriculture increased from about 3,000 in 1939 to 40,000 by the end of 1956; consumption of fertilisers trebled in the same period. Between 1949 and 1956 the area of land under grain increased by more than 30 per cent. At the same time, the number of farms engaged in grain production decreased because grain output was concentrated on fewer and more highly specialised farms. Before the war combine harvesters were not used at all, but in 1956 there were nearly 2,000 such machines. Of equal importance from the standpoint of rationalisation is the abandonment of low productivity areas and the more intensive cultivation of better land.

Output per man-year in agriculture is now 50 per cent. higher than before the war. This shows that the decrease in the agricultural labour force has been accompanied by technical progress. Particularly significant is the fact that manpower is replaced by capital to a greater extent than in earlier periods of labour scarcity and that the changes which have recently taken place are permanent. Agriculture can no longer function as a shock absorber for the employment market.

The Occupational Shift and Farm Policy

These changes have been reflected in farm policy. Up to the Second World War agriculture was regarded as providing a measure of economic security and as a balancing factor during periods of fluctuating economic activity. As a result protective tariffs on agricultural commodities were introduced at a fairly early date, and outlets for the whole domestic grain output guaranteed through the state grain monopoly. In spite of a comparatively rapid rate of industrial development, it was not then considered that industry and service occupations could expand fast enough to absorb the whole of the increase in the labour force. Periods of unemployment in industry appeared to confirm this view. Consequently, both economic and social considerations favoured policies
calling for the subdivision of agricultural land. Up to the First World War a great number of tenants and service tenants \(^1\) became owners, and during the first decades of this century settlement programmes were introduced, partly to counteract the heavy emigration to America. These programmes were continued in different forms in the inter-war years, to reduce unemployment. The main result was a large increase in the number of small farms.

After the Second World War an important change took place in agricultural policy: the slogan "the right to land for all" was replaced by "economic farms". The new policy was embodied in the Land Act of 1955, superseding an Act of 1928. The expressed aim of the new Act was to provide for the best use of land, in keeping with the principle that farm sizes (both of existing farms and new holdings) should be sufficient to secure a reasonable income for the farmer and his family. For this purpose the Act granted rights of pre-emption and expropriation to the State, and laid down principles regulating the reallocation of land. Excessive division of holdings was to be prevented, and a procedure was to be established for increasing the size of farms. As the Act has been in operation for a short time only, there is little evidence yet of its effectiveness in the latter respect.

From the standpoint of agricultural employment, the new policy might, at least in theory, bring about a reduction in the number of part-time, and an increase in the number of full-time farmers, as a result of the consolidation of small holdings into bigger units. Against this view, it may be argued that even a very considerable consolidation of small holdings may not be sufficient to bring remaining farms up to the minimum size for economic operation on a full-time basis. Even if the number of farms is reduced, the proportion of part-time farmers is likely to remain high.

In the field of production and income, the present policy is to ensure that agriculture shall meet the full domestic demand for milk, butter, cheese, meat and eggs, a high proportion of the demand for fruit and vegetables, and a reasonable proportion of the demand for cereals. Fairly high consumption subsidies have been used in order to keep prices of food at a reasonable level, in addition to subsidies for farm improvement. This policy has, directly and indirectly, protected domestic production. From 1953 to 1956 agricultural production was about 20 per cent. higher than in the inter-war period, and it now covers nearly 60 per cent. of total food requirements (the population having increased by 17 per cent. between 1938 and 1956). How to strike a

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\(^{1}\) "Service tenants" are farm workers who have the right to life occupation of a small farm, in return for a fixed number of days' work on the main farm.
balance between these measures and the long-term aim of encouraging a more economic farm structure remains an open question. Revisions of policy are now being undertaken to reduce the price subsidies and increase grants for long-term investment to improve farming efficiency.

**SWEDEN**

Sweden, like Norway, is a land of farms and forests. In 1951 the total area of farm land was about 4.4 million hectares, of which 3.7 were arable and 0.7 million pasture land. In addition, Swedish farmers own a total area of about 10 million hectares of forests, which constitute a very important economic asset.

*Farm Population and Agricultural Labour Force Trends*

The farm population increased up to 1880 and has since decreased at an accelerating rate. In 1940 agriculture, forestry and fishery still accounted for 34 per cent. of the total population. The percentage had fallen to 25 per cent. by 1950, indicating a very high rate of migration, higher in fact than in any other European country. These changes are shown in table 33.

**TABLE 33. SWEDEN: DISTRIBUTION OF THE POPULATION BY INDUSTRY, 1900-50**

*(Thousands)*

<table>
<thead>
<tr>
<th>Year</th>
<th>Agriculture, forestry and fishing</th>
<th>Other industries</th>
<th>Total population</th>
<th>Agricultural population as percentage of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1900</td>
<td>2,828</td>
<td>2,308</td>
<td>5,136</td>
<td>55</td>
</tr>
<tr>
<td>1910</td>
<td>2,697</td>
<td>2,825</td>
<td>5,522</td>
<td>49</td>
</tr>
<tr>
<td>1920</td>
<td>2,596</td>
<td>3,308</td>
<td>5,904</td>
<td>44</td>
</tr>
<tr>
<td>1930</td>
<td>2,417</td>
<td>3,725</td>
<td>6,142</td>
<td>44</td>
</tr>
<tr>
<td>1940</td>
<td>2,162</td>
<td>4,209</td>
<td>6,371</td>
<td>39</td>
</tr>
<tr>
<td>1945</td>
<td>1,995</td>
<td>4,679</td>
<td>6,674</td>
<td>30</td>
</tr>
<tr>
<td>1950</td>
<td>1,729</td>
<td>5,313</td>
<td>7,042</td>
<td>25</td>
</tr>
</tbody>
</table>


The labour force in agriculture proper shows a similar trend. Up to 1930 the decrease per decade was 40,000. Between 1930 and 1940 the decrease was nearly 200,000, owing mainly to a decline in the number of women economically active in agriculture: between 1940 and 1950 the decrease was of the same proportion, though in this decade the decrease was mainly due to a decline in the number of male workers.
The share of agriculture proper in the total labour force fell from 47 per cent. in 1910 to 18 per cent. in 1950. The trends over this period are shown by table 34.

### TABLE 34. SWEDEN: AGRICULTURAL LABOUR FORCE TRENDS, 1910-50

(Thousands)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total labour force</th>
<th>Agricultural labour force</th>
<th>Percentage of total labour force</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Males</td>
<td>Females</td>
</tr>
<tr>
<td>1910</td>
<td>2,116</td>
<td>741</td>
<td>252</td>
</tr>
<tr>
<td>1920</td>
<td>2,565</td>
<td>701</td>
<td>244</td>
</tr>
<tr>
<td>1930</td>
<td>2,872</td>
<td>675</td>
<td>235</td>
</tr>
<tr>
<td>1940</td>
<td>2,966</td>
<td>624</td>
<td>99</td>
</tr>
<tr>
<td>1950</td>
<td>3,105</td>
<td>488</td>
<td>52</td>
</tr>
</tbody>
</table>


Farm operators constitute the greater part of the labour force in agriculture. In 1910 they numbered about 400,000 (of whom 40,000 were women) and represented 40 per cent. of the total agricultural labour force. The group shows relatively low mobility, having decreased only to about 330,000 by 1950 when it constituted 60 per cent. of the farm labour force. After the farmers, working members of farm families form the most important group, numbering 367,000 in 1910 and 95,000 in 1950. Farmers and family members together constituted about 77 per cent. of the agricultural labour force in 1910, and increased their share slightly, to about 79 per cent., in 1950. Hired workers decreased less than members of farm families: from 220,000 in 1910 (of whom only 30,000 were women) their number fell to about 100,000 in 1950. Female hired workers almost disappeared from the agricultural labour force during the 1930s, whereas male workers have left agriculture mainly since 1940. In 1950 only 6,000 women were registered in the population census as hired workers in agriculture.

The above figures do not give the actual input of labour in agriculture, since farmers' wives are not included in the economically active population, even though they undoubtedly constitute a very important source of labour on many Swedish farms, and have probably represented a balancing factor during the period of decrease in other categories.

Recent agricultural manpower trends, as revealed by surveys of the Central Bureau of Statistics, are illustrated in table 35.
As an average over the 1951-55 period the number of workers in agriculture decreased at an annual rate exceeding 5 per cent., as compared with 3 to 4 per cent. in the 1945-50 period.

In recent years hired workers have been more mobile than family workers, including farmers. While the number of male family workers decreased by 3.3 per cent. between 1951 and 1957, permanently hired workers decreased in numbers by 7.2 per cent. and day labourers by 12.6 per cent.

It is expected that the agricultural labour force will continue to decline rapidly. According to one authority, the number of men in the productive age groups will fall to 300,000 by 1965, as compared with 655,000 in 1945, and the number of women to 200,000, as compared with 520,000 in 1945. Thus the over-all reduction over a period of 20 years will have been of the order of 60 per cent.

### Part-Time Farming

A certain proportion of Swedish farms are too small to provide full employment for a farm family. Farms with less than 10 hectares of arable land are generally not large enough to provide parity incomes as defined in official policy. Of the total number of 380,000 farmers in 1950, only 96,000 had more than 10 hectares of cultivated land. Consequently, the pull towards outside employment is felt by the great majority of farmers and farm workers. But since Swedish farms usually

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## TABLE 35. SWEDEN: PERSONS OVER 15 YEARS OF AGE ACTIVE IN AGRICULTURE, BY STATUS, 1951-57 (Thousands)

<table>
<thead>
<tr>
<th>Year</th>
<th>Family workers</th>
<th></th>
<th>Permanently hired workers</th>
<th></th>
<th>Temporary workers</th>
<th></th>
<th>All categories</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males</td>
<td>Females</td>
<td>Males</td>
<td>Females</td>
<td>Males</td>
<td>Females</td>
<td>Males</td>
<td>Females</td>
</tr>
<tr>
<td>-------</td>
<td>-------</td>
<td>---------</td>
<td>-------</td>
<td>---------</td>
<td>-------</td>
<td>---------</td>
<td>-------</td>
<td>---------</td>
</tr>
<tr>
<td>1951</td>
<td>370</td>
<td>304</td>
<td>66</td>
<td>23</td>
<td>69</td>
<td>36</td>
<td>505</td>
<td>364</td>
</tr>
<tr>
<td>1952</td>
<td>344</td>
<td>278</td>
<td>62</td>
<td>20</td>
<td>45</td>
<td>20</td>
<td>451</td>
<td>318</td>
</tr>
<tr>
<td>1953</td>
<td>329</td>
<td>258</td>
<td>59</td>
<td>18</td>
<td>35</td>
<td>18</td>
<td>423</td>
<td>294</td>
</tr>
<tr>
<td>1954</td>
<td>323</td>
<td>251</td>
<td>53</td>
<td>13</td>
<td>29</td>
<td>17</td>
<td>405</td>
<td>281</td>
</tr>
<tr>
<td>1955</td>
<td>314</td>
<td>271</td>
<td>50</td>
<td>11</td>
<td>28</td>
<td>12</td>
<td>392</td>
<td>264</td>
</tr>
<tr>
<td>1956</td>
<td>305</td>
<td>232</td>
<td>45</td>
<td>10</td>
<td>28</td>
<td>15</td>
<td>378</td>
<td>257</td>
</tr>
<tr>
<td>1957</td>
<td>302</td>
<td>227</td>
<td>42</td>
<td>8</td>
<td>29</td>
<td>15</td>
<td>373</td>
<td>250</td>
</tr>
</tbody>
</table>


1 On 1 June.
include some forest land, and farm families derive an important share of their income from forestry, income from agriculture alone is not the only consideration in seeking other employment.

Even if earnings from forestry are taken into account, however, there remain a large number of farms which are too small to provide full employment or parity incomes. This is shown by the high proportion of farm workers undertaking part-time work outside agriculture. According to the 1945 population census, a total of 115,700 active males in agriculture had regular part-time work in addition to farming. Of these, about 70,000 were mainly occupied in agriculture and the rest considered agriculture as a part-time pursuit. The most important supplementary occupation is forestry work, followed by industry and handicrafts. Farmers' supplementary occupations are probably more important than the census figures indicate. According to farm accountancy records, 15 per cent. of farmers' incomes are derived from sources other than agriculture and forestry. On small farms (between 2 and 5 hectares) in northern Sweden, the figure is as high as 38 per cent. On bigger farms and in central Sweden earnings from sources other than agriculture and forestry range between 6 and 20 per cent. of farmers' incomes, whereas in the southern regions such earnings are insignificant.

The combination of farming and forestry with other employment is now generally considered to be incompatible with labour requirements in modern enterprises. Even the traditional seasonal and part-time occupations (such as certain types of building, maintenance work, and work in forestry and sawmills) now require skilled workers on a more permanent basis owing to the introduction of mechanisation and the increased scale of operations. This tends to make the combination of part-time jobs with farming more difficult.¹

Factors Influencing the Movement out of Agriculture

The main factor determining the rate of movement out of agriculture has been the expansion of industrial employment, which gathered momentum during the 1920s and has since been sustained, apart from a mild recession in the early 1930s. Wages in Sweden are now higher than in any other European country and the continuous rise of earnings in industry has exerted a strong pull.

¹ O. Gulbrandsen, in Strukturomvandlingen i Jordbruket (Stockholm, Industriens Utredningsinstitut, 1957), p. 162, relates this development to the off-farm employment taken up by farmers' sons on small farms while waiting to take over the farm. The practice of taking up employment outside the farm tends to break the daily contact with farming and so reduces agricultural skills and interest.
Push factors exert an influence mainly through the inadequate size of the farms in the 2 to 10-hectare size group, which can no longer provide an adequate living by present-day standards, in spite of the very rapid increase of labour productivity in agriculture.

Otherwise, up to 1950 push factors did not operate strongly, in spite of rapid mechanisation. Agricultural production continued to increase up to 1950, when it was about 15 per cent. higher than the 1935-39 average; in 1955-57 there was some decline below the level of the early 1950s. Prices of agricultural products have shown a general upward trend during the whole post-war period, except for slight setbacks in 1948 and in 1953-55. Owing to increased operating expenses, however, total agricultural income decreased slightly in 1952-56, and there is evidence of a certain push exerted during this period by mechanisation and attempts to reduce labour costs. Since 1945 mechanisation has been very rapid, the number of tractors having risen from about 20,000 in 1945 to 120,000 in 1956.

Estimates of the annual increase in total agricultural production show that it was much more rapid in 1921-38, when it amounted to 1.7 per cent., than in 1938-53, when the corresponding figure was 0.6 per cent. During the same periods industrial production increased at an annual rate of 6.1 and 3.4 per cent. respectively. The annual increase in agricultural production per working hour, on the other hand, compares more favourably with industry, the respective rates having been 2.6 and 3.2 per cent. in agriculture, and 2.9 and 3.4 per cent. in industry.\(^1\)

Relative Incomes

Around 1860, when more than 70 per cent. of the population was engaged in agriculture, forestry and fishing, the share of these industries in the national income was about 45 per cent. In 1900 the corresponding figures were about 55 and 34 per cent., in 1920, 44 and 24, and in 1930, 39 and 14.\(^2\)

During the 1930s the share of agriculture proper in the national income was about 10 per cent. and it remained at the same level up to 1950, when it began to decrease. Around 1950 gross product per worker in agriculture was about 50 per cent. of the average gross product per worker in all sectors. In 1951 agricultural gross output was 8.4 per cent.

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of national gross output, falling to 6.6 per cent. in 1955. Estimates of net national product by industrial origin are not available, and consequently comparisons with other countries of sector product per worker ratios are not possible. It would seem, however, that the net product per worker in agriculture in relation to net product per worker in other sectors increased slightly between 1930 and 1950, and has probably remained stable in recent years. Whereas up to 1950 the increase was due both to increased production and the decrease in the agricultural labour force, the maintenance of the ratio in recent years is due only to the decrease in manpower.

In discussing these calculations of average income ratios it should be borne in mind that 80 per cent. of all farmers in Sweden own some forest land, and that income from this source is not included in agricultural gross product. Income from part-time work outside agriculture is also not included. In 1955 farmers' income from forestry was estimated at about 1,500 million crowns, or more than 50 per cent. of the gross product from agriculture (2,600 million crowns). Farm accountancy records (for farms keeping accounts) indicate that 20 per cent. of farmers' total earnings are derived from forestry and 15 per cent. from other off-farm earnings.

Effects of the Movement out of Agriculture

Among the main effects of the reduction in the agricultural labour force has been a decrease in the number of farms—a process which has been going on since the First World War, but which up to the Second World War was confined to holdings under 5 hectares. It has since become more marked and now also affects farms in the 5 to 10-hectare group. Between 1944 and 1951 the decrease in the total number of farms amounted to 35,000, of which 16,000 were in the 2 to 10-hectare group. In 1950 the total number of agricultural holdings was 380,000, of which 98,000 were under 2 hectares (generally not independent farms), 187,000 between 2 and 10 hectares, and 96,000 over 10 hectares. Between 1951 and 1956 the decrease in the total number of farms amounted to 52,000, of which 17,500 were in the 2 to 10-hectare group, and the majority of the remainder under 2 hectares.

2 These figures relate to arable land areas only and do not include pasture or forest land.
3 K. ANDERSSON: Landsbygden och framtid (Stockholm, Riksförbundet Landsbygdens Folk, 1956), pp. 46 and 47. Some of the decrease is due to differences in classification of holdings at the two dates.
On the basis of the age distribution of farmers, the expected retiring age, the rates of recruitment and migration of young people, and the anticipated inflow of people from other sectors, it is estimated that there will be a shortfall of 6,000 new farm operators every year up to 1970 and that the number of farmers in 1970 will be 210,000 as compared with 330,000 in 1950.\footnote{GULBRANDSEN: Struktromvandlingen i Jordbruket, op. cit.} The decline in farm numbers is expected to lead to a considerable increase in average farm size.

The Occupational Shift and Farm Policy

Swedish agrarian policy during the present century has resembled that of Norway. Up to the 1930s the division of agricultural holdings was tolerated, and to some extent also encouraged, by measures to promote land settlement and provide credit facilities for acceding to ownership. But opinion as to the desirable size of farm holdings then underwent a change; in 1937 the right to divide agricultural holdings was restricted, and in 1940 the settlement programme was revised in order to provide for the setting up of farm units of an economic minimum size.

In 1947 a long-term policy for agricultural rationalisation was introduced. Its general objectives were to avoid the sale of surpluses at a loss in the export market and to maintain a certain volume of output for purposes of defence; the long-term production target was fixed at 90 per cent. of domestic food requirements. Farm incomes were to be large enough to enable farm workers to attain the same standard of living as workers in other industries and ensure that they should receive a proper share of any future increase in the national income. The income target was to be considered as achieved when the labour income of farmers and family workers on well managed farms with 10 to 20 hectares of cultivated land had reached the same level as the wages of comparable groups of workers in rural districts.\footnote{This level is estimated to have been reached in 1952-53. See Organisation for European Economic Co-operation: Agricultural Policies in Europe and North America (Paris, 1956), p. 207.}

The policy was also aimed at a redistribution of income in favour of small farmers, but carried out in such a way that it should not hinder other long-term measures aimed at improving the agrarian structure.\footnote{At present cash payments are made to small farmers, the payments being valid only during the lifetime of the operator. Subsidies on milk production, varying by regions, are also granted.} With respect to manpower, the objective was to reduce the numbers employed in agriculture whenever opportunities for more economic employment might arise in other sectors.
Improvements in farming and farm management methods were, of course, a corollary to this aim of raising farm incomes and living standards. For the small farms under 10 hectares, the aim was to help units falling vacant to combine with other small farms. Transfers of land were made subject to official approval, and the State was given the right of prior purchase of farms falling vacant, which it might use to combine the vacant lot with neighbouring farms.

This policy reflects the changing role of agriculture in the economy since the inter-war period, when policy was concerned with maximising agricultural employment. Today the criterion is the most productive use of the nation’s resources, including manpower, and the emphasis is placed on the betterment of the conditions of the farm population and on adjustment to a smaller labour force.

While the increase in labour productivity since this policy was introduced is proof of considerable success in farm rationalisation, the policy has been criticised in recent years on the ground that rationalisation has not gone far enough. It is argued that, from a strictly economic standpoint, the conditions of agricultural production, the prospective demand for food and the prospects for raising labour productivity in agriculture, as weighed against the prospect of employment and productivity in other sectors, necessitate a closer adjustment of the volume of agricultural production to effective domestic demand, and a much more extensive consolidation of the smaller farms than has in fact taken place. It has also been pointed out that the decrease in the number of farms in recent years is due mainly to cost-price relationships in agriculture as compared with other sectors; and that the new policy has been insignificant in its effects on structure, while its income effects may even have slightly retarded the consolidation of holdings.

It is certainly true that the evolution of the agrarian structure has now entered a new phase. Earlier, the decrease in the agricultural labour force could take place without radically affecting the structure. But now the number of one-man farms is increasing steadily. On the majority of these farms the scope for increasing income and employment through investment is small, and at the same time the prospects for combining farming with other work are diminishing.

The prospective rapid decline in farm labour and in the number of farms will tend to weaken the social life of many rural communities. Small industries are likely to be inadequate as a means of maintaining rural incomes and employment, and farm forests are considered by some authorities to offer only poor opportunities for supplementary

1 ODHNER: Jordbruket vid full sysselsättning, op. cit.
2 GULDBRANDSEN, op. cit.
employment because they are too small for efficient management. Integrated regional and local planning, it is argued, should be the remedy, in conjunction with concentration of agriculture in the regions where both agricultural resources and the opportunities for supplementary employment are most favourable.

One of the most important considerations in regard to the future of employment in agriculture is its close integration with forestry, which is so striking a feature of the rural economy of Norway and Finland as well as Sweden. In these countries, the idea that agriculture and forestry are two distinct occupations is misleading, both from the standpoint of occupational mobility and from that of farm management and manpower planning. The introduction of sustained yield principles in forestry, or cultivated forests, is now being extended to farmers' private forests, and the difficulty of improving methods in small forest areas is being overcome by the system of co-operative management for small properties grouped in large areas. These methods are likely to improve the prospects of rural employment. Both in Sweden and Norway, a large proportion of land which is now unproductive could be made productive by afforestation. Agricultural economists and policy makers have in the past given little attention to the "agricultural-forestry" type of farm on which the economy is in fact based, and have tended to treat them as two different fields. From the standpoint of future investment and labour requirements, the inter-relationship of the farm and the forest will need to be taken into account in policies for rural development.

UNITED KINGDOM

In the United Kingdom the proportion of the labour force in agriculture is lower than in any other country. In August 1955 only 4.6 per cent. of the total gainfully employed were engaged in agriculture. This small proportion is a result of the early industrialisation of the country and its dependence on imported food supplies; it may also be attributed in part to the economically and socially underprivileged status of the agricultural labourer, who in the past benefited little from agricultural prosperity and suffered most from agricultural depression.

Agricultural Labour Force Trends

Movement of country people to the towns, long in process, gathered considerable momentum in the second half of the eighteenth century,

\footnote{ODHNER, op. cit.}
during the period generally described by historians as the Industrial Revolution, when the total population was still very small, though it was rapidly increasing. In the first half of the nineteenth century the agricultural population grew slowly, while total population doubled. By 1851 Britain was already highly industrialised. Only one-quarter of the total male population over 20 was then occupied in agriculture, so that even a century ago agriculture’s share in the labour force had already declined to the proportion which now characterises the economic structure of most advanced countries.

Decline in absolute numbers began early, in the period of agricultural prosperity and rapid industrial expansion of the mid-nineteenth century. From 1875—when the full effect of competition from overseas food production was first felt—up to 1940 British agriculture, apart from a short spell of prosperity in the First World War, was a depressed industry. The demand for labour contracted sharply in the last quarter of the nineteenth century, and wages fell. Arable land was laid to pasture, while further progress in the use of machinery also reduced employment. Some improvement occurred as prices rose in the early years of the twentieth century, but in the inter-war years the arable area continued to shrink and power machinery replaced horse-drawn implements. The total volume of agricultural production remained below the level of 1870 until 1940.¹

Up to the Second World War the agricultural labour force continued to decline in absolute numbers, while the total labour force continued to grow rapidly. By the end of the century agriculture’s share in the total had fallen to 9 per cent., by 1931 to 6 per cent., and by 1951 to 5 per cent. Table 36 shows these changes.

It will be observed from the table that the rate of absolute decline in the agricultural labour force between 1881 and 1951 was not high: numbers fell by about 30 per cent. Since the proportion of the total labour force in agriculture was already small, and the total labour force grew rapidly over the period, rural-urban migration did not provide an important source of recruitment for non-farm occupations, and the numbers leaving agriculture were too small to affect the level of wages and incomes in such occupations. Thus, although Britain is often cited as a classic example of the benefits of the shift from agriculture into more productive fields, the role of rural-urban migration in its economic development over the past century has been much less than might be supposed from its present highly urbanised occupa-

TABLE 36. UNITED KINGDOM: DISTRIBUTION OF THE LABOUR FORCE BY ECONOMIC SECTOR, 1881-1951

(Thousands)

<table>
<thead>
<tr>
<th>Year</th>
<th>Labour force in Agriculture</th>
<th>Industry</th>
<th>Services</th>
<th>Total</th>
<th>Percentage of total labour force in Agriculture</th>
<th>Industry</th>
<th>Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>1881</td>
<td>1,638</td>
<td>6,372</td>
<td>4,785</td>
<td>12,795</td>
<td>13</td>
<td>50</td>
<td>37</td>
</tr>
<tr>
<td>1891</td>
<td>1,582</td>
<td>7,176</td>
<td>5,888</td>
<td>14,646</td>
<td>11</td>
<td>49</td>
<td>40</td>
</tr>
<tr>
<td>1901</td>
<td>1,385</td>
<td>7,158</td>
<td>6,851</td>
<td>15,394</td>
<td>9</td>
<td>47</td>
<td>44</td>
</tr>
<tr>
<td>1911</td>
<td>1,550</td>
<td>9,023</td>
<td>7,269</td>
<td>17,842</td>
<td>9</td>
<td>51</td>
<td>40</td>
</tr>
<tr>
<td>1921</td>
<td>1,381</td>
<td>9,142</td>
<td>8,236</td>
<td>18,759</td>
<td>7</td>
<td>49</td>
<td>44</td>
</tr>
<tr>
<td>1931</td>
<td>1,258</td>
<td>9,717</td>
<td>9,919</td>
<td>20,894</td>
<td>6</td>
<td>47</td>
<td>47</td>
</tr>
<tr>
<td>1951</td>
<td>1,116</td>
<td>11,086</td>
<td>10,281</td>
<td>22,482</td>
<td>5</td>
<td>49</td>
<td>46</td>
</tr>
</tbody>
</table>


1 Excluding "persons not adequately described" and/or "unemployed" and "seeking work for the first time".

Tional structure. Nor has occupational change encountered the great difficulties of adjustment that may arise under different demographic conditions as, for example, in France where the long decline of a relatively much larger agricultural labour force, in an almost static population, tended to depress wages and incomes in other occupations, particularly in the overcrowded services sector.

As contrasted with France, the problem of the drift from the land in Britain, as a long-term process, has not been the difficulty of finding other employment, although this problem did exist during the 1880s and again in the 1930s. The real problem arose out of the method by which the transfer of manpower was accomplished. Though the reduction of manpower in agriculture was required by Britain's position as an industrial exporter, the continuous downward pressure on the standard of living of the farm worker is difficult to justify as a necessity of economic growth. Migration was beneficial because it represented a way out; but many of the conditions which depressed the rural living standard resulted from social neglect rather than from economic progress.

Of the million men and women occupied in agriculture in 1957 about 750,000 were hired workers, and the remainder farmers or members of farmers' families. The composition of the agricultural labour force differs from that of the other countries included in this chapter in that hired workers predominate and that women workers play a very small part. Over the past 60 years, the number of farmers has remained almost constant, and hired workers have constituted the main element in migration.
Factors Influencing the Movement out of Agriculture

The main factor influencing the shift of labour out of agriculture between 1875 and 1939 was the downward trend in farm employment, which resulted in an extremely low level of wages in relation to wages in industry. Between 1850 and 1938 agricultural wage rates in the United Kingdom remained at a level of about 50 per cent. of the level of wages in industry. Even if the figures are adjusted for rural and urban price differences the comparison is not much affected. In the inter-war years, although minimum wages for agricultural workers were enforced by legislation (from 1924), there was little improvement in the wage ratio.

Relative wage rates, however, were not the only cause of migration. Poor housing, precarious employment and lack of social amenities were others. By comparison with the urban worker, the position of the farm labourer in the nineteenth century was one of social debasement. Another great disadvantage, stressed by many investigators, was the labourer's lack of opportunity to accede to ownership or occupation of a farm holding. One authority even considered that "the lack of opportunity to make an independency" was a major cause of the rural exodus. The object of the Smallholdings Act of 1908 and later legislation was to provide a ladder by which the farm worker could acquire a holding; and although some have been able to take advantage of the facilities provided under these laws, the numbers affected have been small, lack of capital to start farming being the main obstacle.

One of the main consequences of the early decline in the agricultural labour force is that Great Britain has the largest area of agricultural land per worker of any European country. Farms are larger in area than in continental Europe. For at least 60 years there has been little change in the distribution of farm sizes. The distribution of holdings by size groups (excluding holdings under 5 acres) in 1951 was as follows: 5-49 acres, 53 per cent.; 50-99 acres, 20 per cent.; 100-299 acres, 23 per cent.; and 300 acres and over, 4 per cent. But there

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2 Conditions in Devonshire were summarised in an official report of 1919 as follows: "(1) Bad housing; (2) abominably long hours; (3) days of labour without intermission; (4) low wages; (5) indifferent food; (6) lacking good boots and clothing; and (7) the lack of hope for better circumstances. The labourer seems to have no chance of any improvement in his position." (Quoted by J. Saville, in Rural Depopulation in England and Wales (London, 1957), p. 201.)
3 Sir Daniel Hall, quoted by Saville, op. cit., p. 20.
has been an increase in the proportion of family to hired labour. At present, 60 per cent. of all holdings in England and Wales do not employ a regular hired labourer; and on 46 per cent. of all holdings the total labour force consists of the farmer and his wife. Only 5 per cent. of all holdings (in numbers, 18,600) regularly employ five or more men. Consequently, only a few men on a small number of farms have a chance of improving their status. About three-quarters of Britain's farmers are sons of farmers; it has recently been estimated that only one-tenth to one-eighth of them come from the ranks of hired workers.\footnote{G. P. Hirsch: "Land and Labour", in Westminster Bank Review, Aug. 1955.}

\textit{Causes of the Recent Decline in the Agricultural Labour Force}

Since the beginning of the Second World War the economic position of British agriculture has greatly changed. In the inter-war years, some financial assistance had been granted to farmers in the form of price guarantees, and prices of some farm products had been controlled through marketing boards. The scale of financial assistance was, however, small. Wartime food policy extended government control over all food production, and guaranteed prices for all products. Since the war a policy of agricultural expansion has been pursued, with the object of reducing extreme dependence on overseas supplies of food, conserving foreign exchange for imports accorded a higher priority, and assuring a more stable livelihood for those employed in agriculture. Financial assistance to agriculture through grants and subsidies is now roughly equivalent to total net farm income. As a result of this policy, net output by 1955-56 had increased by 56 per cent. over the pre-war level. British agriculture now covers about one-half of total food requirements, as compared with about one-third in the inter-war years. Special assistance is extended to "marginal farmers", and in 1959 a policy of assistance to small farmers in general was inaugurated.

From 1939 until 1945 the agricultural labour force increased. Agriculture was a "reserved occupation", i.e. workers were exempt from military service. Some additional manpower was provided by the Women's Land Army and by war prisoners. After 1945 the total number of hired workers declined, although the number of regular workers increased up to 1949, following which their numbers fell. Between 1948 and 1957 the total working population in agriculture, forestry and fisheries (including farmers and their families) decreased by 13 per cent.—from 1,178,000 to 1,027,000. During the same period the number of hired workers declined by 19 per cent. Table 37 shows changes in the number of workers employed on agricultural holdings between 1939 and 1957.
**TABLE 37. UNITED KINGDOM: WORKERS EMPLOYED ON AGRICULTURAL HOLDINGS AT THE JUNE CENSUS, 1939-57**

*(Thousands)*

<table>
<thead>
<tr>
<th>Year</th>
<th>Regular workers</th>
<th>All workers (including casual workers)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Both sexes</td>
<td>Male</td>
</tr>
<tr>
<td>1939</td>
<td>663.1</td>
<td>591.8</td>
</tr>
<tr>
<td>1945</td>
<td>681.3</td>
<td>572.4</td>
</tr>
<tr>
<td>1948</td>
<td>714.5</td>
<td>624.7</td>
</tr>
<tr>
<td>1949</td>
<td>730.0</td>
<td>644.6</td>
</tr>
<tr>
<td>1957</td>
<td>643.5</td>
<td>552.4</td>
</tr>
</tbody>
</table>


1 Including regular part-time workers hitherto included only in "all workers".

During the Second World War farm wages for the first time rose sharply in relation to industrial wages, reaching 80 per cent. of the industrial wage level in 1946-47. Since then, average earnings of farm workers have declined slightly in relation to earnings in other occupations.

The causes of the continued decline in the number of hired workers since 1949, in spite of the higher level of wages and a more favourable wage ratio than in the inter-war years, has been a matter of some controversy. By some authorities it is attributed mainly to farm mechanisation. If this is the main reason, then the continued reduction in the labour force represents a necessary adjustment to changing techniques. Other authorities have drawn attention to the way in which the decline is occurring. The movement of labour out of agriculture is confined mainly to the age groups between 20 and 35. This would indicate that redundancy is not the main cause of movement, since it is this age group which farmers would retain if changing techniques necessitated dismissal of labour.

The present wage structure suggests that relative wage levels are an important factor. Young workers continue to enter agriculture because they can earn slightly higher wages than in manufacturing industry, while the adult male worker who wishes to marry finds that he earns about £3 a week less than in a comparable job in industry.¹

Although mechanisation doubtless exerts some influence, it appears probable that the relatively low level of earnings is still the main push

¹ "Average weekly earnings of workers aged 15-18, in October 1954, amounted to £4 11s. 7d. in agriculture, as compared with £4 3s. 8d. in industry. As contrasted with this position, the average gross weekly earnings for adult male workers in agriculture stood at £7 11s. 10d. (inclusive of overtime, piece work, bonus, premiums and perquisites), while in manufacturing industries they were £10 12s. 3d." (Hirsch: "Land and Labour", op. cit.)
factor, and is operative to a greater extent than before the war because other jobs have been easy to find in a period of expanding employment.

A recent case study carried out in the west of England into the causes of the drift from the land went directly to those most immediately concerned.¹ Questionnaires were issued to two groups—609 former farm workers who had recently changed their employment, and 772 workers still in agriculture. The first group were asked to state their reasons for change of employment, while the second group were asked to give reasons which would influence their decision to remain in agriculture in the future. The inquiry found that—

. . . outstanding amongst the causes providing the stimulus for workers to leave the land are low wages, long and uncertain hours, general working conditions, and both the system and state of tied cottages . . . . Within this group of reasons, low wages alone accounts for almost 50 per cent. of the total and is undoubtedly the most important single contributory cause of the drift from agriculture.

Two-thirds of the first group stated that their main reason for leaving was relatively low income, in combination with the length of the working week (normal hours being fixed at 47), and the uncertainty and variability of hours worked. In the 16-25 and 26-35 age groups these reasons were relatively more important than in the older age groups, although there also they were the outstanding reasons. Older workers in their replies laid greater stress on health and redundancy. In the second group two-thirds gave low wages as the reason, or one of the reasons, why they had considered leaving agriculture. Only a small part of those who had left agriculture appeared to have done so on account of redundancy: the great majority had left agriculture voluntarily.

After these main reasons, the "tied cottage" ² and its poor state was emphasised by young newly married workers, and also by older workers, whose replies indicated a sense of insecurity arising from the system itself. The desire to obtain better education for their children had some importance as a possible reason for change of occupation in the second group.

There was no evidence of dislike for agricultural work as such. On the contrary, many workers in the first group spontaneously stated that they would prefer to return to agriculture if they could find jobs at better wages. In the second group, fresh air, the nature of the work itself, and mechanisation were emphasised as the main reasons for remaining. The survey concluded that—


² A house which is the property of the farmer and is rented at low cost to the farm worker so long as he remains in the farmer's employment.
... there is no reason to assume that it is the less efficient, the less desirable workers who have left, or who would consider leaving if current conditions continue to prevail. On the contrary, it seems reasonable to suggest that it may be the more enterprising and ambitious individuals who are being induced to leave the land. The prevalence of low wages might well be securing a desirable contraction of the labour force, but doing so by skimming off the cream. It would be somewhat idealistic, and unjustifiable in the face of the evidence of this survey, to contend that such material concerns would weigh heavily only with those less suited to, and less capable of coping with, the ever-increasing demands on the skill and adaptability of the general farm worker. The intangible benefits associated with living and working in the countryside, though by no means insignificant, appear to pall readily in the face of adverse material circumstances.\(^1\)

Whether the movement of labour into other occupations will continue at its present rate depends on the volume of non-agricultural employment. In some districts unemployment was increasing early in 1958, and some workers who had left agriculture for building employment were seeking to return. Should the volume of non-agricultural employment continue to increase, however, it would seem that efforts will be needed to retain skilled labour in agriculture and to stabilise employment by making conditions of farm work more favourable in relation to industrial employment in three major respects—the wage structure, housing conditions, and superannuation.

The most controversial question at present concerns the wage structure. Hitherto the National Union of Agricultural Workers has aimed at raising the basic legal minimum wage, and reducing the working week, in the interest of all workers. Recently it has proposed that the basic minimum should be related to the level of labour productivity in agriculture. Average earnings in the industry tend to remain close to the basic minimum. An unofficial system of premiums for skill is now in force in different parts of the country, the premiums varying with the local scarcity of labour. The premiums, however, do not offer sufficient incentive to workers to remain in the occupation, as they are neither systematised nor enforceable. It is accordingly felt that a national scheme for higher rates of pay for skilled workers would encourage young workers to remain in agriculture, and so stabilise the labour force and improve its efficiency. At present, as already mentioned, the wage structure encourages young workers to seek jobs in agriculture, but discourages them from remaining, so that some wastage of experience results from a change of employment. The labour force already consists to a disproportionate extent of the very young and the aged. By the time that shortage of labour causes a rise in the unofficial premiums, it may be too late to secure an increase in the

\(^1\) Cowie and Giles, op. cit., p. 105.
supply of skilled labour, and the aging of the labour force still in agri-
culture will reduce efficiency.

Although conditions of housing in villages have greatly improved in recent years as a result of building by local authorities, some farm workers still live in tied cottages. On leaving or losing their employment, they are legally liable to eviction, and although in practice eviction is extremely rare, the resulting insecurity is felt as a great disadvantage, especially by older married workers. The grievance is perennial, arising from the position of dependence vis-à-vis the farmer and also from the bad condition in which the cottages are sometimes maintained. The problem is not an easy one, since farmers need to maintain housing accommodation for some workers, e.g. stockmen on the farm, even today when the motorbicycle allows workers to reside at a distance. Recently the N.U.A.W. has considered proposals for an amendment of the law. This would require service dwellings to be registered with local authorities, which would be obliged to find alternative accommodation for the occupant before the farmer’s right of possession could be enforced.

Among other proposals to bring conditions of employment in agriculture more into line with those obtaining in other basic industries, that of a superannuation scheme should be mentioned. At present the farm worker after a lifetime’s work in agriculture can look forward only to a pension under the national old-age scheme, while the worker in other basic industries can also look forward to the benefits of an industrial superannuation scheme.
CHAPTER IV

ECONOMICALLY ADVANCED COUNTRIES : CONCLUSIONS

ECONOMIC AND SOCIAL IMPLICATIONS OF THE MOVEMENT OF LABOUR OUT OF AGRICULTURE

From the preceding surveys of the present conditions of the movement of labour out of agriculture in the more advanced countries, certain similarities emerge. In the first place, it is clear that there is a strong similarity in the broad causes of movement in the period since the Second World War (and also, with some variations, in the period since 1939). The pull of expanding employment has been the most decisive factor in encouraging movement. In all these countries, with one exception, the percentage of unemployment has been much lower than during the 1930s; in most of them full employment has been maintained.1

The relative income push is weaker because government farm policy has raised farm incomes. While during the inter-war years governments were generally more concerned with maintaining the volume of employment in agriculture and used tariffs and other forms of import restrictions to maintain food prices in the internal market above the level of world prices, in more recent years policies have been concerned with the increase of agricultural production, investment and incomes.

As a result of government policy and higher efficiency, agricultural producers in almost all the advanced countries are in a much more favourable relative income position than they were in the inter-war period. In three countries—the United Kingdom, Denmark and the Netherlands—the average income per worker in agriculture is as high, or nearly as high, as in other sectors of the economy. In the majority, however, including the United States, Canada, France and Sweden, income parity is not achieved, although relative incomes have risen as compared with the inter-war years.

1 Italy is the exception; the figures for registered unemployed show a proportion of 9 per cent. in 1950-57 as compared with 5 per cent. in 1937. The proportion of unemployment in 1950-57, though lower than in the inter-war period, has remained rather high in Denmark, amounting to 10 per cent. of the labour force covered by trade union returns, and also in Canada, where it has ranged from 5.5 to 11.8 per cent. of the number of workers covered by compulsory unemployment insurance.
How far official agricultural price and income supports tend to hinder the outward movement of manpower is difficult to estimate, because in all of the countries concerned hired workers and members of farm families are the main element involved, and their incomes are influenced less directly than farm operators’ incomes by official price and income policy. Within this group of countries, the reduction of the agricultural labour force has been most rapid in Sweden and Canada, where farmers receive state aid in the form of price supports and subsidies. The United States and Denmark show about the same rate of decline, although farmers receive much financial help in the former country and none in the latter. Thus it is difficult to isolate the effect of official price and income policies on the movement of labour from that of other factors, since the rising level of wages in other occupations may widen the income disparity and cause a high rate of movement, even though farm incomes are fixed at a higher level than they would be in the absence of price supports and other forms of public assistance.

**Higher Productivity**

The reduction in the agricultural labour force in the last 20 years has been accompanied by increased agricultural production, and consequently by rapid increases in labour productivity. In North America the increase has been much faster than in western Europe, output per man having doubled since before the war: a 50 per cent. higher output is produced with 24 per cent. less labour in the United States, and with 30 per cent. less labour in Canada. In western Europe the rate of increase of labour productivity has been less spectacular than in the United States and Canada, but has nonetheless been considerable: total output increased by 25 per cent. while the labour force declined by as much.

There is, however, no general correlation between the long-term or short-term decline in the agricultural labour force and the present level of labour productivity in agriculture. In Denmark and the Netherlands, where the level of labour productivity is high, the agricultural labour force increased slowly up to 1930 and 1947; since the Second World War, it has decreased quickly in Denmark and slowly in the Netherlands. In France, by contrast, the level of labour productivity in agriculture is much lower than in these two countries, although the agricultural labour force has been declining steadily over a long period, and has continued to decline, though slowly, since the Second World War. Sweden, with a rate of decline much above the western European
average in recent years, shows a very rapid increase in agricultural output per man-hour; here the correlation between the rate of movement and the rise in labour productivity is obvious.

The reason for the general lack of correlation between the rate of decrease in the labour force and the level of labour productivity is that the increase in output per man depends mainly on increased capital investment in agriculture, which has been associated with the reduction of the labour force to a much greater extent in some countries than in others. Mechanisation has been an important factor in reducing labour requirements in agriculture during the recent period. In the inter-war years, its influence was felt chiefly in Canada, the United States and the United Kingdom, but since the Second World War it has also operated in western European countries, most of which have made rapid progress in the introduction of power machinery. It remains uncertain whether machinery is substituted for labour in order to reduce labour costs or whether it is introduced because workers have already left the farm, but in either case it tends to reduce the demand for labour and so prevents a rise in unskilled wage rates. The most striking evidence of its effects on conditions of employment comes from Canada, where it has probably made the employment of hired labour more unstable and seasonal.

Incomes and Wages

Although it would seem obvious that the reduction in the size of the agricultural labour force should tend to raise the level of farm incomes and wages, it is difficult to demonstrate this effect on the basis of international comparisons within the group of economically advanced countries. The only exception is Denmark, where the rapid decline in the agricultural labour force has certainly been one of the main factors making for parity of farm incomes with incomes in other occupations, since farmers receive no official price or income supports.

Over the long period the growing shortage of labour in agriculture must undoubtedly have tended to raise the level of farm wages. But movements in real wages in recent years show little relationship either to the rate of reduction of the labour force or to the rate of increase in productivity. As table 38 shows, in Canada and the United States, where there has been a sharp decline in the agricultural labour force, real wages have increased little in recent years, while in other countries they have increased considerably even though the decrease in agricultural manpower has been much smaller. The explanation for the small increase in the United States and Canada may lie in the weak
bargaining power of hired workers, arising from the lack of trade union organisation, and in the absence of official minimum wage fixing machinery in agriculture.

TABLE 38. CHANGES IN AGRICULTURAL MANPOWER, PRODUCTION AND REAL WAGES, IN SEVERAL ECONOMICALLY ADVANCED COUNTRIES, 1948-57
(Percentages)

<table>
<thead>
<tr>
<th>Country</th>
<th>Decrease in agricultural labour force</th>
<th>Increase in agricultural production</th>
<th>Increase in real wages in agriculture</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>22</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Canada</td>
<td>32</td>
<td>14</td>
<td>10</td>
</tr>
<tr>
<td>Denmark</td>
<td>17 ¹</td>
<td>11</td>
<td>17</td>
</tr>
<tr>
<td>France</td>
<td>(under 10)</td>
<td>18</td>
<td>48</td>
</tr>
<tr>
<td>Germany (Federal Republic)</td>
<td>14</td>
<td>21</td>
<td>81</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>13</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>Italy</td>
<td>15-20</td>
<td>24</td>
<td>6</td>
</tr>
<tr>
<td>Netherlands</td>
<td>(10-12) ¹</td>
<td>11</td>
<td>24</td>
</tr>
<tr>
<td>Norway</td>
<td>18</td>
<td>6</td>
<td>17</td>
</tr>
<tr>
<td>Sweden</td>
<td>28</td>
<td>-5</td>
<td>40</td>
</tr>
</tbody>
</table>


¹ Based on labour input.

The Changing Agricultural Labour Force

Changes in Size.

In spite of the long decline and the recent rapid shrinkage of the agricultural labour force, there is reason to believe that in several countries it is still rather too large from two standpoints: that of future labour requirements and that of the present level of farm incomes. The reduction in the size of the labour force which will result from the high age distribution of the farm population will to some extent bring about an adjustment in relation to future requirements, but will not affect the size of the farm population in the near future, and so will not affect the present income position.

For the six countries included in the European Economic Community (France, Western Germany, Italy, Belgium, the Netherlands and Luxembourg) it is estimated that the reduction in labour requirements in agriculture from 1956 to 1971 may be of the order of 25 per cent., which would represent a total reduction of some 3 million workers and implies that 50 per cent. of the boys in farm families in the under-14 age group in 1956 will have to choose other employment. At present
the rate of decline falls short of the rate which would adjust the intake
to future requirements, and social wastage results from the present
tendency of young workers to take up farming for some years and
postpone the decision to change their occupation until it is too late
to acquire new qualifications.\footnote{A. Maris: "The Efflux of Labour from Agriculture in Europe", in \textit{Rural Migration, Papers and Discussions}, First Congress of the European Society for Rural Sociology, Brussels-Louvain, 1958 (mimeographed), pp. 48-57.}

Whether the over-all quantitative reduction will represent a difficult
adjustment or not will depend on the rate of expansion of non-agri­
cultural employment. If there should be a large contraction in non-
agricultural employment, workers who have left agriculture will seek
to return to it, and since technical progress will continue to reduce
labour requirements they are unlikely to find employment on farms.
Thus the maintenance of full employment is an essential condition for
the absorption of agricultural labour into other occupations.

From the standpoint of farm incomes, the size of the agricultural
labour force raises a more serious and immediate problem, because
farm policy criteria have changed since the Second World War. Several
countries aim at securing income parity for farmers. In the United
States the objective is to maintain farm incomes in relation to a standard
of price parity. Sweden, Norway, Western Germany and the Netherlands
endeavour to ensure that farmers' incomes reach certain fixed standards,
intended to provide parity with incomes in comparable occupations.

Income parity can be attained either by increasing productivity in
agriculture or by imposing burdens on the consumer or the taxpayer.
The question whether measures of the latter type maintain an unneces­
sarily large number of farmers in production, and so defeat their own
end of securing income parity, is therefore crucial since, if this is the
case, the cost of maintaining a given level of agricultural production
is unnecessarily high. If farm productivity were higher, and the farm
population smaller, the same volume of agricultural output could be
maintained at lower cost, and farm incomes would come nearer to the
parity level. In periods of accumulating food surpluses this question
becomes more acute, since the cost of maintaining farm incomes at
standard levels rises if world prices fall; in this case the need for reducing
the labour force in agriculture derives from the need for reducing food
production.

It is from this standpoint that the question of the size of the agri­
cultural labour force now arises in the United States and in France.
Leading American economists are of the opinion that the rapid rise
in agricultural labour productivity necessitates a drastic reduction in
the manpower and other resources used in American agriculture. In France it is argued that the agricultural labour force is too large in relation to the rate of technical progress and the prospects of market expansion. Over-production of food in relation to the existing income level is the reason why a reduction in manpower in agriculture is considered necessary. These situations are complicated by great disparities in productivity between different income groups and different farming regions in these countries.

In Italy, there can be no doubt that the size of the agricultural labour force now gives rise to an immediate problem, since it is too large in relation to present labour requirements. Although farm incomes and wages are lower and underemployment is more prevalent in the south than in the north, the scale of regional depression is such that it affects the economy as a whole. Government policy aims at increasing the volume of employment for the express purpose of reducing the agricultural labour force; the Vanoni Plan provides for the transfer of 1 million persons from agriculture into industry and services through the creation of new jobs over the 1954-64 decade.

Changes in Composition.

The reduction in the size of the agricultural labour force has been accompanied by changes in its composition. Farm operators and their families form a larger proportion, and hired workers a smaller proportion, owing to the higher rate of movement of the latter. Farms now rely to a much greater extent on the labour of the farm family.

In all countries farm operators are the least mobile group. In the United States and Canada, however, they are far more mobile than in other countries, and in recent years have been not much less mobile than other groups. Farms have decreased in numbers and increased in size. In western European countries, by comparison, farmers are highly immobile. Numbers remain stable or show a very slow decrease. The number of farm operators actually increased in Denmark between 1910 and 1950, although from 1930 to 1950 there was a slight decrease. In Sweden the number of operators is now declining fairly rapidly, and this reduction is expected to bring about an increase in farm sizes.

As a long-term trend, hired workers have decreased more rapidly than the total labour force in western European countries. In the United States and Canada they have decreased at the same rate as the total. In all countries the mobility of members of farm families has increased in recent years.
These trends have been accompanied by a change in the age structure of the agricultural labour force. An aging farm population, in most of the countries under discussion, is the outcome of higher rates of mobility among the younger age groups. In some regions of France it results also from low birth rates in the rural population. The effects are difficult to estimate. It may be presumed that the rising average age of farmers will tend to reduce labour productivity and slow down the rate of technical change. Among workers, it may hinder the acquisition of new skills.

Projections of the future labour force in agriculture, based on the present age structure, are available only for France: they show that over the next ten or 20 years there will be a decline in the farm population for this cause alone, apart from migration, and that the rate of decline will then increase. Similar changes may be expected to occur in other countries.

Changes in the Occupational Pattern.

A noteworthy feature in several countries is a new form of rural-urban relationship. Farmers engage in part-time work off the farm, or combine part-time farming with other occupations, to a much greater extent than they did in the past. In some countries this heterogeneous occupational pattern is traditional, particularly on the farm and forest holdings of Norway and Sweden, and also in southern Germany, where the link between industry and agriculture is very old. But the tendency to combine farming with other occupations is growing even in these countries. In the United States the increase in part-time farming can actually be measured, by comparing changes in the proportion of farmers’ incomes obtained from off-farm earnings in recent years. Such a comparison discloses the surprising fact that total off-farm income is almost as large as total net income from farming. Observation suggests that the same tendency is operative in other countries, although no precise data are available.

Thus the rural exodus no longer necessarily involves a move from the village to the city, as well as from the farm to the factory—although, of course, such change still does occur, particularly in the case of hired labourers. But for farmers and their families the half-way house, permanent or temporary, is becoming a common pattern.

The main cause of this growing tendency to combine occupations is the need to supplement farm income. The condition upon which it depends primarily is, of course, motor transport, which increases physical and inter-occupational mobility, enabling town workers to live in the village and country workers to take up part-time or seasonal
work in neighbouring towns. Industrial decentralisation aids the process, as does also farm mechanisation, by providing rural employment in the repair and servicing of farm machinery. Insecurity of urban employment and, in western European countries, the memory of food rationing are also explanations of the desire not to sever all ties with the country.

The economic significance of growing occupational heterogeneity is difficult to evaluate. It would appear to be a condition of income equilibrium in advanced countries where the general level of personal income is high, and where services and transport are highly developed, but where average incomes per head in agriculture are considerably lower than in other branches of economic activity. This applies, in particular, to the United States, Western Germany, Norway and Sweden, where farmers' incomes average about 50 per cent. of incomes in other occupations.

Whether the combination of farming with other occupations increases farm efficiency is doubtful. It is significant that in Denmark, with its high level of labour productivity in agriculture and evenly time-spread labour requirements, there is little part-time farming. Presumably, there is no loss in efficiency if farm work can be dovetailed with other activities, such as forestry, and in this case there is certainly a gain in employment stability. But even in Norway and Sweden, where such integration is well established, there is some doubt as to whether it can be extended to industrial employment under modern conditions. In Western Germany, where official policy aims at encouraging the combination of industrial employment with rural residence and a farm holding, it has been found that the combination is more successful if the holding is really small.

Recent years have also seen a great increase in the combination of urban employment and rural residence by commuting workers. This has the advantage of enabling workers to remain in their own communities and helps to avoid rural devitalisation. But, where the journey to work is long, this type of movement may involve considerable loss of time and waste of energy.

In the United States and Canada (and also in Australia) a new form of urban-rural relationship has appeared—the tendency to farm from the town. This is feasible in the case of highly mechanised and seasonal grain cultivation, and is evidently conditioned by the isolation of rural life.

1 M. CÉPÈDE: "La sociologie rurale et les problèmes actuels des migrations", in *Rural Migration, Papers and Discussions*, op. cit., p. 33.

DIFFERENTIAL ASPECTS OF THE MOVEMENT

The foregoing review of the causes and effects of the migration of agricultural labour provides a background for the discussion of concrete problems emerging from the present situation. These problems arise in different settings, and are much more serious in some countries than in others; they do, however, arise in greater or lesser degree in most of the countries discussed in this chapter (as well as in others which, for reasons of space, have not been included). They are concerned with the differential aspects of migration.

As the preceding surveys have shown, the outstanding contrasts in rates of movement are, in the first place, the high rates of mobility among hired workers, as a long-term trend; lower rates of mobility among farm operators, and particularly the less efficient ones; and higher rates of mobility among young workers, as compared with the older generation—all of which add up to a problem of rural devitalisation.

**The Position of Hired Workers**

From the preceding surveys it is evident that the position of the hired worker in agriculture, although it has undoubtedly improved since the Second World War, is still unsatisfactory in many respects. Agricultural wages have generally risen in relation to other wages, though in most cases not to the same extent as farmers' incomes have risen in relation to incomes in other occupations. Table 39 shows comparative increases of wages in agriculture and average earnings in manufacturing.

**TABLE 39. INDICES OF WAGES IN AGRICULTURE AND AVERAGE EARNINGS IN MANUFACTURING IN SEVERAL ECONOMICALLY ADVANCED COUNTRIES, 1957**

(Base: 1948 = 100)

<table>
<thead>
<tr>
<th>Country</th>
<th>Wages in agriculture</th>
<th>Average earnings in manufacturing</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>130</td>
<td>153</td>
</tr>
<tr>
<td>Canada</td>
<td>138</td>
<td>175</td>
</tr>
<tr>
<td>Denmark</td>
<td>166</td>
<td>176</td>
</tr>
<tr>
<td>France</td>
<td>260</td>
<td>249</td>
</tr>
<tr>
<td>Germany (Federal Republic)</td>
<td>208</td>
<td>203</td>
</tr>
<tr>
<td>Italy</td>
<td>139</td>
<td>154</td>
</tr>
<tr>
<td>Netherlands</td>
<td>186</td>
<td>179</td>
</tr>
<tr>
<td>Norway</td>
<td>178</td>
<td>184</td>
</tr>
<tr>
<td>Sweden</td>
<td>206</td>
<td>209</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>167</td>
<td>177</td>
</tr>
</tbody>
</table>

Source: "Agricultural Wages, 1948 to 1957", op. cit.
WHY LABOUR LEAVES THE LAND

It is apparent that in some countries (France, Western Germany, the Netherlands, Norway and Sweden) farm wages have kept pace, or more than kept pace, with manufacturing earnings, while in others they have failed to do so, either by a slight margin, as in Denmark and the United Kingdom, or by a more considerable one, as in the United States and Canada.

A comparison of wage levels in agriculture with wages of urban labourers in building construction, for the countries for which such data are available, is given in table 40.

<table>
<thead>
<tr>
<th>Country</th>
<th>Unit of currency</th>
<th>Daily wage in agriculture</th>
<th>Daily wage in urban building construction, Oct. 1957</th>
<th>Agricultural wage as percentage of construction wage</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>$</td>
<td>5.80</td>
<td>12.40</td>
<td>47</td>
</tr>
<tr>
<td>Canada</td>
<td>$</td>
<td>6.90</td>
<td>15.00</td>
<td>60</td>
</tr>
<tr>
<td>Denmark</td>
<td>Crown</td>
<td>26.93</td>
<td>32.32</td>
<td>83</td>
</tr>
<tr>
<td>Norway</td>
<td>Crown</td>
<td>31.26</td>
<td>32.20</td>
<td>94</td>
</tr>
<tr>
<td>Sweden</td>
<td>Crown</td>
<td>3.54 ¹</td>
<td>4.27 ¹</td>
<td>83</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>shilling</td>
<td>150 ⁰</td>
<td>174 ³</td>
<td>86</td>
</tr>
</tbody>
</table>

Source: "Agricultural Wages, 1948 to 1957", op. cit.

It will be observed that the wage disparity in European countries is not large while in Canada and the United States it is considerable. In Canada agricultural wages represent only 60 per cent. of wages in building construction and in the United States only 47 per cent.

In addition to lower levels of wages, hired workers in agriculture suffer from special disadvantages as compared with workers in other occupations. Hours of work are longer and more irregular.¹ The long working day is an extremely important factor influencing the decision of members of farmers' families to seek other employment. Long journeys to work lengthen the working day, a disadvantage which particularly affects workers on large estates. In southern Italy, for example, agricultural workers sometimes spend as much as five hours daily travelling from their villages to the fields and back again.

Housing accommodation for farm workers is usually of a low

standard. In some countries housing is provided by the employer and this condition is commonly felt to be unsatisfactory because it ties the worker to his job. Changes in the composition of the agricultural labour force in Western Germany illustrate the importance of the housing factor; the heaviest decline has been in the number of unmarried workers living with the farm family.

Social insurance schemes covering sickness, unemployment, paid holidays and superannuation are often not applied to agricultural workers. This is felt as a disadvantage mainly by hired labourers, but the migration of family workers may also be influenced by the greater security of urban employment.

The question arises as to whether movement of hired workers out of agriculture due to these adverse conditions is a good thing. Although it seems certain that the opportunities for employment of unskilled labour will contract, the demand for skilled labour is likely to increase. The existing wage structure, housing conditions, and facilities for vocational training are not adequate to modern requirements. Continuance of these adverse circumstances can only aggravate the socially underprivileged status of the rural community.

**The Immobility of Low Income Farmers**

In several of the countries reviewed, surplus farm labour is concentrated in certain types of holdings characterised by a grossly substandard level of labour productivity. Such labour may be underemployed, or it may be fully employed in conditions which preclude any increase in productivity (as, for example, on small farms using animal draught power). Small farm sizes, remote locations, poor soil and lack of capital are all causes of this low level of performance, and are often found in conjunction.

Contrasts in levels of productivity between "low income" farmers and others are very great in the United States. In France the contrast is chiefly between different regions and also between family holdings and large commercial farms. In Italy regional disparities are even greater, with the unfavourable natural conditions of the south further accentuated by the existence of very large holdings in that same region. In Western Germany, the Netherlands, Norway and Sweden the differences are mainly between the smaller family farms, with their rather lower levels of labour performance, and the larger family farms, although such differences can hardly be compared with the wide gap which characterises the agricultural economy of the United States, France and Italy. In Great Britain "marginal" farms are farms on poor land, too small
to provide an income equivalent to that of an agricultural labourer and to pay interest on the farm capital.

The rapid decline of the agricultural labour force in recent years has not served to lessen these contrasts in productivity, owing to insufficient absorption of the least efficient farmers into other occupations. The contrasts, indeed, appear to be increasing, as a result of the cumulative effects of farm prosperity and poverty. Figures showing over-all national increases in labour productivity obscure the fact that the level has risen much more rapidly on the most efficient farms and much more slowly among poorer farms, for the obvious reason that it is the most prosperous farmers, on good land and with higher managerial ability, who can obtain credit more easily or re-invest farm profits in machinery and other farm equipment. Farmers with low levels of productivity will be less favourably placed to take advantage of new methods in farming because they are usually affected by generally adverse conditions, which not only reduce their incomes but make them bad credit risks; their lack of technical knowledge and enterprise may be further obstacles to technical progress.

Farmers in these conditions are often described as marginal, and indeed in the United Kingdom they are officially so described; but in the economic sense the term is incorrect, since they are not the most mobile groups: on the contrary, many of them seem able to persist indefinitely on the margin. A reduction of farm prices may not force them out of production, because they can reduce their costs by reducing their standard of living. When farm prices rise and the farm economy is prosperous their incomes also rise, but their ability to improve their methods, and the scope for improvement, may be too small to allow much gain in land or labour productivity. Thus the factors which keep productivity low in conditions of this kind also keep farmers relatively immobile. In addition to disadvantages of situation, education and resources, age is an obstacle to change of occupation.

Consequently, the contribution of the movement of labour towards producing a better distribution of productive resources in agriculture is not so great as it would be if the rate of mobility were higher in these groups. If the reduction in manpower occurred where manpower is least efficiently used, the improvement in labour performance would be much greater, and the cost of maintaining income parity much lower.

This problem, which is common to all of the countries under discussion, has been approached in various ways: in Sweden, Norway and the Netherlands by efforts to increase farm sizes by combination and consolidation; in the Netherlands also by industrial decentralisation, encouraging early retirement, and investment in capital construction.
These various means, energetically used, may bring about a gradual remodelling of the agrarian structure. France has undertaken some resettlement and industrial decentralisation. Italy has undertaken a long-term programme for the south, involving land reclamation, land reform and resettlement, and some regional industrial decentralisation, to level up its enormous agrarian poverty sector. In the United States the aim is to raise the productivity and income of low income farmers, but so far the emphasis has been mainly on the provision of relief; more recently, efforts have been made to assist outward migration.

These new policies represent an attempt on the part of governments to tackle the social, as distinct from the purely economic, problems of agriculture. So far, not much has been achieved. Measures to encourage the combination of small units can be useful as guide lines to ease the future evolution of the farm structure, rather than as methods of re-organisation. Where the conflict between the generations is acute, such policies may encourage the more enterprising young people to remain in agriculture and make the long-term adjustment less wasteful and frictional. They are, however, likely to be effective only in alliance with other measures, such as the provision of alternative employment in poor regions, old-age pensions to facilitate retirement, and vocational training for the younger generation. In the absence of such policies, further over-all quantitative reduction in the agricultural labour force is not likely to bring about a solution of the economic and social problems of these sections of the agricultural community. That such policies have been adopted is a sign that several governments are no longer disposed to regard agriculture simply as a static "way of life", but emphasise instead the need for spreading the benefits of technical progress through the farming community, in ways which will ease the transition, and encourage reduction of manpower where it is most needed and most difficult.

The Movement out of Agriculture and the Young

In education and health services the rural community is usually not so well provided as the town; but in other respects country dwellers are at a lesser disadvantage than they used to be. Rural electrification, piped water supplies, farm mechanisation, bus services, radio and television now assimilate conditions of work and life in town and country to a greater extent than formerly. But the lack of equal opportunity in education is a disadvantage naturally most felt by the younger generation, and so is more significant than the lack of other services in that it affects recruitment into agriculture.
The view is commonly held that rural-urban migration "skims off the cream" by removing the more intelligent and enterprising young people from the countryside, so that recruitment into farming becomes a process of negative selection; but the evidence available is insufficient to confirm or disprove this view. For the United States, there is evidence to show that the better educated are more mobile. The same point is proved by a recent survey carried out in the Netherlands, covering 2,000 male ex-pupils in more than 250 elementary schools in the country districts, which showed that migration is selective in respect of education because the educational system favours the choice of urban occupations:

... Rural boys of above-average intelligence are selected by the educational system and trained for occupations that mainly occur in urbanised or urban areas. No appropriate local employment is available for most of them and they are expelled from the countryside as a consequence. But the mean intelligence of those who remain, and who also achieve a high level of education and an occupation with a high social status, is not lower than that of those who leave the countryside.\(^1\)

Inadequate social services and amenities, in conjunction with high age selectivity, and the selective tendencies of the educational system reinforce each other in impoverishing the life of the rural community. The village becomes a place where the young, intelligent and enterprising do not wish to live, and their decision to move makes it a less desirable place for others.

This cumulative process gives rise to what may be regarded as the most adverse social aspect of the rural exodus, the devitalisation of the countryside, or the emergence of "zones of social depression".\(^2\) It is seen at work, for example, in the south-western regions of France, with the concomitant aging of the farm labour force reinforcing other disadvantages. In Western Germany "zones of social discontent" are distinguishable. In Canada the isolated pattern of settlement in the prairie provinces has contributed to the snowballing migration of recent years. Among the reasons for migration to towns given in the community hearings before the Royal Commission on Agriculture and Rural Life in Saskatchewan, stress was laid on the better education and health services in towns, and bad roads in rural districts.\(^3\) Ireland, where the movement of rural labour has long taken the form of contributing vitality to the life of other nations, provides the classical example of the cumulative process of rural devitalisation.\(^4\)

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2. CÉPÈDE, op. cit., p. 31.
This process raises some difficult problems for the advanced countries. The smaller the rural population, the higher is the cost of social services per inhabitant in rural areas. This problem was emphasised by the Royal Commission on Agriculture and Rural Life in its investigation of the causes of rural depopulation in Saskatchewan. The provision of rural schools of the same educational level as urban schools is perhaps the greatest difficulty. It is very evident in France and indeed in most advanced countries, with the exception of Denmark, where the provision of a high level of general and vocational education for the farming community is a long-established policy.

That a large proportion of the younger generation should leave agriculture at an early age is necessitated by decreasing labour requirements. But that young workers should be driven to change their occupation because of the disadvantages of living in the countryside is clearly undesirable, since it affects the quality and life of those who remain on the land.
CHAPTER V

COUNTRIES WITH A LARGE FARM POPULATION SURPLUS

The following pages deal with the conditions of movement of labour out of agriculture in countries where the density of the agricultural population is high and where it is increasing, or has increased until very recently. As was pointed out in a previous chapter (with reference to the Netherlands economy) a high density of farm population per acre does not necessarily mean a low level of output per worker or per acre, nor does increasing density necessarily mean a falling level of output per head. But, as the case of southern Italy shows, the growth of the farm population in a densely settled region with adverse climatic conditions may result in underemployment and low levels of income in agriculture if the rate of investment is too low to absorb labour into other employment or to increase employment and productivity in agriculture itself.

The preceding chapters have shown that in advanced countries there may be a labour surplus in relation to a given volume of agricultural output because technical progress tends to reduce labour requirements. In agriculturally overpopulated countries, however, the surplus may exist even though the effective demand for food is increasing and the rate of technical progress slow.

Countries where this condition obtains are generally included within the group conventionally described as "less developed". Japan, on the criteria of income per head and occupational structure, may be included among the advanced countries, but since, as already explained, the basis of the classification used in this study is the type and rate of change in the agricultural labour force, it is included in this group. So far as some agriculturally overpopulated countries are concerned, the conventional term may indeed be misleading, by suggesting that agriculture is primitive and backward. This, in fact, is by no means generally the case; indeed, these countries include many different types of farming, some of which are characterised by very high levels of output per acre, such as rice cultivation in Japan, cotton in Egypt and tea in Ceylon. From the standpoint of land use, such countries may even be regarded as overdeveloped, using their land very intensively and specialising on a single export crop. But even where this is the case, output per worker is low, owing to the high density of the farm population, the low level of output per acre, or both.
In some of these countries the annual rate of natural population increase is high (e.g., 2.5 per cent. in Ceylon and 2.2 per cent. in Egypt in 1953-57), while in others it is lower (e.g., 1.3 per cent. in India, 1.9 per cent. in Pakistan, and 1.2 per cent. in Japan, also in 1953-57). As regards the latter three countries, the agricultural labour force in India increases almost as rapidly as the total labour force; in Pakistan, the increase has in recent years been checked by rapid migration; and in Japan the agricultural labour force is more or less stabilised. So far as farm incomes per head are concerned, the significant fact is not the rate of increase of the total population, but the increase in the size of the agricultural labour force on land areas which are already congested. If the level of output per acre cannot be raised further, the increasing number of workers cannot be fully employed, and incomes and output per head must fall. The continuing decline in agricultural incomes and employment act as permanent push factors.

Unfortunately it has not been possible, on the basis of the data at present available, to review the movement out of agriculture in several countries where this condition is known to be of great importance in relation to the employment market, such as Egypt, Ceylon, Indonesia and the Philippines. The selection of the three countries here included—India, Pakistan and Japan—has been determined by the availability of data on the distribution of the labour force over long periods, and some supplementary data on aspects of recent change.

These three countries have certain features in common. They are old countries, long settled and civilised, where the high density of the agricultural population reflects an early successful adjustment to environment. In India and Pakistan the present occupational structure reflects the difficulties of adjustment to a world economy in which handicraft industries were exposed to the competition of foreign manufactures, a situation which Japan met by industrialisation, so that agriculture’s share in the labour force declined rapidly over a long period. All three countries are food importers, in spite of the high proportion of the labour force in agriculture, and in all three there is urban unemployment, as well as unemployment and underemployment in agriculture.

The level of agricultural efficiency, measured in output per acre or per man, is much higher in Japan than in Pakistan and India, and in recent years has risen slowly; in India and Pakistan output per man has tended to fall since the inter-war period; it is now rising very slowly in India, and in Pakistan it is probably stable. Thus the conditions of movement of labour out of agriculture differ from those considered in the preceding chapters in that the push factors influencing movement are strong and the pull factors weak.
INDIA

In 1951 the population of India totalled 357 million and the agricultural population 249 million; the average population density per square kilometre, in 1957, was 120. The arable area is 158 million hectares, corresponding to 0.63 hectare per head of the 1951 agricultural population. The rate of population growth has accelerated since 1921, rising to the average annual rate of 1.2 per cent., owing to better national control over diseases and a fall in the infant mortality rate. The present rate of increase (1.3 per cent.) is lower than that of 1941-51, which amounted to 1.4 per cent.

The Unbalanced Occupational Structure

The increase in population has not been accompanied by a relative decline in the numbers dependent upon agriculture. From 1931 to 1951 the labour force engaged in agriculture actually increased (from 71 per cent. to 74 per cent. of the total labour force) while the proportion of the labour force in industry and services declined from 11 to 10 per cent. and from 18 to 16 per cent. respectively. Between 1941 and 1951 the total labour force increased by 20.2 million; the increase in the industrial labour force amounted to only 300,000, while services absorbed another 5.7 million persons, and agriculture had to make room for the rest of the increase, amounting to 14.2 million. Thus 1.4 per cent. of the increase in the labour force went into industry, 28.3 per cent. into services, and 70.3 per cent. remained in agriculture. In other words, non-agricultural occupations were able to absorb rather less than one-third of the growth of the labour force resulting from the natural increase in population, and the majority of those so absorbed went into services. Between the years 1941 and 1951 industry therefore failed to expand sufficiently to create employment opportunities for the increasing labour force. According to the Second Five-Year Plan report—

increase of non-agricultural employment in urban areas has been counterbalanced in almost equal degree by decrease in the rural areas .... Thus, the general trend until very recently appears to have been in the direction of increased dependence on agriculture.

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A further proof of industry's inability to absorb labour released from agriculture is the fact that, during the period of the First Five-Year Plan, urban unemployment increased in spite of the rise in industrial production. The index of industrial production (with 1946 as base year) rose from 117 in 1951 to 161 in 1956, but the number of registered unemployed increased from 337,000 in 1951 to 750,000 in the same period. Total urban unemployment in 1954 was estimated to be of the order of 2.5 million, amounting to roughly four times the number registered at the employment exchanges and nearly 25 per cent of the total number of workers in mining and manufacturing.

The present lack of balance in the occupational distribution of the population is the result of political and economic forces at work during the last century, which are responsible for the considerable lag between the disappearance of domestic industries and the expansion of factory employment. In pre-nineteenth century India domestic industries, which were for the most part located in villages, produced commodities for immediate and local use. During the nineteenth century these industries were exposed to the competition of cheaper foreign manufactured goods and were forced out of production. Since textiles were the main handicraft industry and the weavers were the most numerous among the artisans, their loss of employment increased the pressure of population on the land. The destruction of small-scale domestic industries had all the more serious repercussions on the economy as manufacturing concerns were not simultaneously set up in the country to create employment for handicraftsmen who had been deprived of their means of livelihood. In this respect, the impact of the Industrial Revolution in India was very different from its impact in England, where—

... new avenues of industrial employment were opened which absorbed, at the most with a little time lag, not only the artisans displaced from their ruined occupations, but even the peasants who lost their land.

The time lag in India extended over a period of more than half a century; the local handicraft industries were ruined as early as the 1830s, yet by 1892 the factories could provide employment for only 316,000 workers. It was not until after the First World War that the Government became interested in industrial development and introduced a policy of pro-

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4 Ibid., p. 40.
tection for infant industries. Failure of the Government to adopt a vigorous long-term policy of industrial development at a sufficiently early stage largely explains the present occupational structure.

**Push Factors in Agriculture**

There are certain clear indications of the extent of the labour surplus in agriculture. These are the inadequate employment opportunities for agricultural labourers; the low level of labour productivity; the low income per head; the extent of unemployment and underemployment; and the small size of holdings.

*The Farm Employment Situation.*

An official survey carried out in 1952 showed that one-third of the workers in agriculture, or 17.6 million families out of a total of 58 million rural families, had little or no stake in the land. Of the total number of agricultural labourers, rather more than 50 per cent. had some land but were occupied mainly as hired workers for more than half of the total number of days; the rest, or rather less than 50 per cent., were agricultural labourers without land. In a more recent official publication it is estimated that a little less than one-half of the rural households either have no land or own less than one acre, which suggests that the proportion of landless agricultural workers has increased.

Agricultural labourers have little incentive to continue working in agriculture, where employment conditions are far from satisfactory. The great majority are casual workers, only 11 per cent. having any permanency of status. Most of them have only an oral agreement with the tenant or landlord which may extend from a few days to some months, during the peak season. As a rule, they are able to obtain work for about seven months in the year; the rest of the time they are partially or totally unemployed.

Many have been permanently reduced to the status of serfs through indebtedness caused by poverty. Indebtedness tends to lower wage rates:

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4 Ibid., p. 33.
5 *Second Five-Year Plan*, op. cit., p. 315.
... By reducing the bargaining strength of labour it depresses the existing rate of wages which otherwise would have been higher, whilst the high incidence of indebtedness increases the supply of labour available from the family of the indebted workman.\textsuperscript{1}

Where this happens, and not only the labourer but also his family is forced to work either without separate remuneration or at nominal wages to pay off debt, the persons concerned, having no stake in agriculture, are naturally eager to move to the city when the opportunity arises; they are the reservoir which provides a constant flow of labour into non-agricultural occupations.

Low Farm Labour Productivity.

As a long-term trend, agricultural production has not kept pace with the growth of population. Between the 1934-38 period and the years 1955/56-1956/57 agricultural production increased by about 21 per cent. (according to the United Nations Food and Agriculture Organisation index), while between 1937 and 1957 the population increased by 28 per cent. Since the farm population in agriculture grew at about the same rate as the total population during this period, the level of labour productivity in agriculture must have fallen. Yields per acre are low by comparison with yields in other Asian countries, amounting to less than half the wheat and rice yields of China and much less than half those of Japan. Until recently, they have shown little increase. However, in the period of the First Five-Year Plan (1951-56) yields of the major grain crops and of rice have risen. Total agricultural production from the 1948/49-1952/53 period until the years 1955/56-1956/57 increased by 17 per cent. (according to the F.A.O. index) and so has more than kept pace with the increase in population during the same period. Improvement in the level of labour productivity depends primarily on the extent to which yields per acre can be increased.

Low Agricultural Incomes.

Agricultural wages are much lower than urban wages. According to an inquiry undertaken in seven states in 1949, the average annual income per earner of agricultural workers' families amounted to only a fraction of the average annual earnings of a factory worker and was in most cases substantially below those of a factory worker in the lowest-paid factory industry.\textsuperscript{2} In recent years the gap between agricultural and industrial wages has widened, owing mainly to wage increases in


manufacturing. Comparison of daily wage rates of casual male day labourers in agriculture with average earnings in manufacturing in Bombay state shows that the agricultural wage represented only 33 per cent. of the manufacturing level in 1957, as compared with 50 per cent. in 1950.

*Rural Unemployment and Underemployment.*

The latest available estimates of rural unemployment put the number of rural unemployed at 2.8 million. Between 1951 and 1956, when the First Five-Year Plan was in operation, the extent of rural unemployment remained stationary as a result of increased output. At the present time, rural unemployment amounts to about 4 per cent. of the agricultural labour force. However, the term "unemployed" when applied to the agricultural labour force is a misnomer, since in India unemployment does not come to the surface but remains hidden or disguised in the form of underemployment.

Underemployment is widely prevalent amongst all classes of agricultural workers, including farm labourers, tenants and owners. Recent statistics showed that, for India as a whole, adult male agricultural labourers were employed on wages (including non-agricultural work) for only 218 days in the year, with regional variations ranging from 289 days in northern India to 181 days in southern India. Apart from agricultural labourers, unemployment is prevalent among farm owners and tenants:

... If cultivating units were to approach what might be described as family holdings, offering the possibility of fairly full-time work in agriculture for a family of average size, agricultural production could be maintained with about 65 to 75 per cent. of the number of workers now engaged in it. During the harvesting season, of course, as in every country, labour requirements are larger.

The push factor out of agriculture must be considered not only in terms of the open unemployment at present existing within the agricultural sector but also in regard to those who are at present partly employed, and may in the future offer themselves for full-time employment. The subsistence or traditional economy of the villages at the present time offers a refuge for a high proportion of the persons who are described as non-earning dependants and earning dependants in the census reports. With commercialisation of the rural economy, this concealed or disguised unemployment will come to light, so that the

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1 *Second Five-Year Plan*, op. cit., p. 315.
supply of labour offering itself for employment at a wage in the open market will progressively increase, even if the population remains static.\textsuperscript{1}

*The Small Size of Farms.*

The small size of agricultural holdings, in conjunction with low intensity of production, is another factor driving the cultivator to abandon farming. The estimated average size of ownership holdings for all households in India is 4.72 acres; if those who have no land are excluded, the average rises to 6 acres.\textsuperscript{2} According to the census of land holdings carried out in 22 states in 1953-54 by the state governments at the request of the Planning Commission, 50 per cent. of the households cultivated holdings smaller than 1.28 acres and 74 per cent. of the households owned less than 5 acres each. A large proportion of holdings are below the economic minimum.\textsuperscript{3}

Thus the push factors in agricultural employment are permanent features of the employment market. Although there has been some improvement in recent years in yields per acre, and although great progress has been made in extending the Community Development Programme, it is evident that very much larger increases in output will be needed if these factors are to be effectively counteracted.

*Urbanisation*

Urbanisation in India has been slow, and the pull factor of urban employment remains weak. Between 1900 and 1950 the percentage of the population residing in cities of 20,000 or more increased from 4 to 12 per cent.\textsuperscript{4} This growth has been only partially caused by industrialisation; a number of non-industrial occupations, such as handicrafts, retail trade, transport and domestic service, have also been responsible for drawing people to the cities, for the most part into low-paid jobs. Thus

\textsuperscript{1}K. N. Raj: *Employment Aspects of Planning in Under-Developed Economies*, National Bank of Egypt, Fiftieth Anniversary Commemoration Lectures (Cairo, 1957), pp. 4-16.


\textsuperscript{3}Experts differ in their definition of an economic holding; some use an income criterion, i.e. the size of holding capable of yielding an income sufficient for an average family of five members, while others use an efficiency standard. On either criterion, the proportion of uneconomic holdings is high. See United Nations: *Land Reform : Defects in Agrarian Structure as Obstacles to Economic Development* (New York, 1951), pp. 6-9.

movement out of agriculture establishes an equilibrium at very low levels of income and employment.

Urbanisation in India has also been the result of growth in overseas trade, so that a large proportion of the population of a port city like Bombay, for example, consists of persons engaged in commerce and retail trade. New Delhi has grown because of its status as the capital. Whatever the primary reason for the growth of a city may be, the conglomeration of population and the concentration of local purchasing power have the effect of drawing labour from the rural areas and of contributing to a cumulative process of growth.

A further cause of the increase in urban population in India during recent years has been the influx of refugees during the war from Burma, Ceylon, Singapore and China and, since the partition, from Pakistan. Many of these refugees could not be absorbed into existing enterprises in urban areas, so that they had to start small concerns in what may be described as marginal self-employment, such as makeshift shops, street peddling, small service and manufacturing industries. This represents one example of how a growing urban population has sought to carve out fresh means of employment in cities where facilities such as power, transport and banking are conveniently available.

Effects of the Movement out of Agriculture

In terms of population pressure on land, the agricultural sector remains for the greater part unaffected by outward movement, since rural unemployment and underemployment continue to increase and the average size of holdings is falling. Urbanisation should have a stimulating effect on agriculture by increasing the effective demand for food and encouraging a diversified pattern of production; but there is no evidence to show that it does so. Some improvement in village income results from remittances received from relatives who have migrated to urban centres and who maintain contact with the village both by sending such remittances and by returning home for visits; in the case of Bombay, for instance, 47 per cent. of the migrants visit their villages at least once every year.¹

The continuing influx of rural population into the cities has given rise to problems of health and housing which remain unsolved. Health conditions, though bad in the villages, are worse in the cities, and the migrants themselves are aware of the contrast. In migrant families

infant mortality is high because mothers have to work outside the home to supplement the family income. Housing conditions in the urban slums where the migrants succeed in finding accommodation of a kind are wretched. Even in government housing schemes, light and air are continuously lacking, and sanitation is inadequate. A recent survey of housing in Bombay showed that three-quarters of the workers' tenements are dilapidated and over 60 years old, but even such housing is not in sufficient supply, so that part of the city population lives and sleeps on the pavements.¹

It is said of rural migrants in Bombay city that—

... in spite of their long stay in the city and under the strong influence of urban culture, they retain their original love for agriculture undiminished and unchanged.²

Part of the reason for their close contact with the village is that two-thirds of them have some ownership rights in the agricultural land. The influence of the village on the outlook of the migrant is fairly strong for a number of years after he has left the village:

... The typical migrant is a "marginal man" in whom the conflict of rural and urban cultural traits is very active .... He is not quite willing or able to break from his rural past, nor is he quite accepted in the strange and indifferent urban environment in which he is trying to seek a footing.³

But in the course of time family ties do tend to weaken and this manifests itself in the migrant refusing to support his dependants in the village. Religious beliefs and customs also slacken with prolonged migration; since the majority of migrants are untouchables, it is to their advantage to obliterate their caste and cease to believe in caste rigidities.⁴

Financially, the migrants are not secure, as employment is uncertain and the cost of living is high. Although an urban industrial labourer can earn twice as much as an agricultural labourer, the urban worker's propensity to save is slight. Moreover, the migrant acquires wasteful habits of expenditure, such as smoking, cinemas and tea drinking, which account for one-seventh of the working-class budget.⁵ Unnecessary expenditure results in indebtedness, of which the main cause is the low income level of the worker and the high cost of living in cities.

Migration from the land in India has taken different forms. It may be a fairly stable stream, as in the case of Bombay, where the migrants are able to find a form of employment sufficiently stable to keep them in the city. In other cities, e.g. Delhi, there is the pheno-

¹ Urbanisation in Asia and the Far East, op. cit., p. 153.
² The Social Implications of Industrialisation and Urbanisation, op. cit., p. 65.
³ Ibid., p. 224.
⁴ Ibid., p. 219.
⁵ Ibid., p. 102.
menon known as “floating migration”. Migration in this case takes
the form of incessant movement of population from town to town
and from town to village in search of employment, the migrants often
travelling up to 700 miles, usually without tickets. They move with no
information regarding employment opportunities. Sometimes they
move quickly from town to town, sometimes getting temporary employ­
ment covering several weeks. But whether or not they obtain employ­
ment the tendency is for them eventually to return to their village.¹

. . . The migration of 11 to 13 per cent. of the families may be regarded as
economically successful; the migration of about 9 to 10 per cent. may be
regarded as a complete failure, while the migration of about 77 per cent.
of the families might be termed “ marginal ”. Both economically and socially
this vast majority of migrants suffer the most. Descriptions of the worst
economic disasters and utter personal and social disintegration included in
this report apply mainly to these families.²

There is a close correlation between rapid urbanisation and the growth
of crime, explained partly by poor living conditions and overcrowding
and partly by the breakdown in social conventions and the ways of
living of village life. There is a marked increase in towns in juvenile
delinquency, prostitution and narcotic offences.³

Thus it would appear that the majority of migrants benefit neither
economically nor socially from their movement to the cities. They are
drawn there by lack of economic opportunities in the village and attracted
by better-paid jobs, but then find themselves in overcrowded surround­
ings, with uncertain employment and a money wage insufficient to cover
the high cost of living.

Future Policy

The basic problem for India is to speed up the rate of increase of
agricultural production. In view of the very low yields per acre as
compared with other Asian countries, there would appear to be great
scope for increase in production, both in food grains and commercial
crops. The objective of the Second Five-Year Plan (1956-61) is to double
agricultural production in ten years by encouraging rural development
on all fronts, including expanded work opportunities in agriculture
and increased educational and training facilities for rural people. Apart
from the possibilities of raising yields, new varieties of crops and live­
stock products are also to be produced in order to shift emphasis away
from production of cereals.

¹ The Social Implications of Industrialisation and Urbanisation, op. cit., p. 162.
² Ibid., p. 224.
³ Urbanisation in Asia and the Far East, op. cit., p. 232.
Community development projects and National Extension Service organisations are the pivots around which all rural reconstruction has been centred, and a primary objective of community development work is to raise agricultural production and to provide non-agricultural work opportunities for rural people. The Second Five-Year Plan aims at extending community development to the entire country. According to the annual report of the Ministry of Community Development and Co-operation for 1958/59, at the beginning of 1959, 165 million people were already served by the Community Development Programme.

Apart from community development, the Government has also undertaken projects for making more land available for settlement. It is intended to bring an additional 21 million acres under irrigation by the end of the Second Five-Year Plan period. Improved production methods are also being introduced with a view to raising yields per acre. The use of nitrogenous fertilisers is intended to rise from 610,000 tons in 1955 to 1.8 million tons in 1961. The Second Five-Year Plan provides for 3,000 seed multiplication farms, together with seed-testing stations and stores for distribution of seeds to farmers. The area cultivated by the Japanese method is expected to increase from 1.6 to 4 million acres. Other measures to be undertaken include the consolidation of holdings, greater attention to plant protection and locust control, and improvements in animal husbandry, dairying and horticulture. The plan has provided for a total of 141.5 million rupees to be spent on agricultural research; new agricultural education institutes are to be set up, including colleges, basic agricultural schools and extension centres. In the view of foreign experts who have studied Indian agriculture in detail—

. . . India is making steady progress in increasing food production . . . but the rate of increase must be tripled . . . . If food production increases no faster than present rates, the gap between supplies and target will be about 28 million tons by 1965-66 . . . . The rate of production increase must average 8.2 per cent. per year for the next seven years. This rate of increase compares with an annual average of 2.3 per cent. from 1949/50 to 1958/59 and an average of 3.2 per cent. from 1952/53 to 1958/59. The task is overwhelming. The urgency of an all-out effort is obvious.¹

In terms of farm employment opportunities, the Second Five-Year Plan rests on the assumption that new entrants to the rural labour force from 1956 to 1961 will number around 6.2 million. By 1961, therefore, employment must be found for about 9 million rural people

(including the 2.8 million at present unemployed)¹, and this task also raises an extremely difficult problem.

The rate of urbanisation in the future is expected to decline, as compared with the rate immediately following upon partition, when there was an influx of refugee population into the urban areas. It is assumed that in the years 1951-61 urban population will increase by 33 per cent. as compared with 40 per cent. between 1941 and 1951.² In order to ensure that the influx into the urban areas is on a manageable scale, the Planning Commission has accepted the policy of encouragement of small-scale and household industries in the rural sector. Such industries are considered advantageous because they require little investment in relation to the employment possibilities which they provide. Another advantage of small-scale industries is that they are scattered widely throughout the country, so that purchasing power is also dispersed and is available to stimulate local economic activities; in addition, the cost of housing, transport and social amenities for the workers is less as the population need not be transferred to urban areas.

The future policy of the Government is therefore based on the expansion of employment both in town and in the country, with the object of avoiding a great influx of the rural population into urban centres. It is hoped that the encouragement of industries and services in the rural and semi-rural centres will create greater employment opportunities in the countryside. The policy is being implemented by levying taxes on factory products, organising better marketing facilities for cottage industries and encouraging existing labour-intensive processes, particularly in industries developed by private initiative, such as oil seed crushing, rice milling and food processing in rural areas.³ Substantial amounts have also been set aside for assistance in the development of small-scale industries. The sum allocated for this purpose under the Second Five-Year Plan was 550 million rupees, a tenfold increase in the sum provided under the First Five-Year Plan. Private industrial societies are being organised in small towns not far from the main cities and located on "artificial highways leading to such cities".⁴ As a further encouragement to the dispersion of industries, the supply of electric power to small towns and villages is being subsidised by the Government and consumption is being encouraged by favourable tariff rates.⁵

¹ Second Five-Year Plan, op. cit., p. 112.
² Ibid., p. 111.
³ Urbanisation in Asia and the Far East, op. cit., p. 170.
⁴ Ibid., p. 174.
⁵ Ibid., p. 177.
PAKISTAN

India and Pakistan have a common historical background, and much of what has already been said of the past evolution of the occupational structure in India holds good in the case of Pakistan also. But the recent spurt in industrial development in Pakistan and the expansion of services following partition have brought about a rapid change in the occupational structure, so that the present employment situation differs from that of India. At the time of partition, Pakistan was in every sense an undeveloped country; there were very few industries, practically no services such as commerce, banking and insurance, and only a skeleton administrative staff. Between 1947 and 1957 substantial advance was made in providing these services, and this brought on a rapid increase in urban employment. Agricultural production, however, has not increased so that, although the growth of the agricultural population has been checked, there has been no increase in the productivity of labour in agriculture.

Agricultural Labour Force Trends

Pakistan in 1957 had an average population density of 89 per square kilometre (as against India's 120). There is marked dissimilarity between the regions: East Pakistan has an excessively high density, three times as high as that of Sind (West Pakistan). In the Punjab (West Pakistan) there are 1.25 acres of cultivated land per head of rural population, as compared with only 0.75 acres in East Pakistan. Population is increasing fast; the 1959 census gives a total of 86.8 million, as compared with 75.8 million in 1951.

Since 1951 there has been a sharp shift in the ratio of agricultural to non-agricultural activities. In 1951 the total labour force amounted to 22.4 million, of whom 17.1 million, or 70 per cent., were active in agriculture; but official estimates for 1954-56 put the corresponding figures during this period at 26.1 million and 16.9 million (65 per cent.) respectively.1 Thus there has apparently been a decrease both in the size of the agricultural labour force and in its proportion to the total labour force, suggesting a very high rate of outward movement. If labour did in fact move out of agriculture into urban occupations at a rate sufficiently high to absorb the natural increase in population between 1951 and 1954-56, the pressure of population on the land in Pakistan could not have been increasing, as it is doing in India. The movement into non-agricultural occupations has been stronger in West Pakistan.

where only 54 per cent. of the active population is now in agriculture, than in East Pakistan, where the proportion is still three-quarters of the total, and the pressure on the land is still extremely high. The percentage of underemployment in the rural areas is also higher in East Pakistan. Although labour is shifting out of agriculture because of the pull exerted by the accelerated programme of industrialisation, there is some urban unemployment. People are moving to the towns in search of jobs, but the opportunities are less than the need.

Factors Influencing the Movement out of Agriculture

Push Factors.

As in India, economic pressures in agriculture give rise to outward migration. These are due to low productivity and low wages in agriculture, uneconomically small holdings, and the inferior status of agricultural labourers, sharecroppers and tenants-at-will.

By contrast with India, conditions in agriculture have not improved in the last ten years, and production has not increased. According to the F.A.O. index, the percentage increase in agricultural production from 1948/49-1952/53 to 1955/56-1956/57 was only 4 per cent., and this small rise was due to increased production of commercial crops, such as cotton and jute. The total volume of cereal production has remained unchanged, at an annual average of 17.2 million tons in 1954-57, as compared with the same average in 1948-52; rice production has increased slightly, while wheat production has slightly decreased. Consequently Pakistan is increasingly dependent on food imports.

The decline in wheat yields per acre in Pakistan is the result of several factors, some technical, others economic and social. Land in the irrigated tracts of West Pakistan is being withdrawn from cultivation because of salination, soil erosion and a rise in the subsoil water table.\(^1\) The inadequacy of the water supply in canals has also affected the level of yields. Knowledge of commercial fertilisers and improved farming methods are not generally spread amongst small cultivators who continue farming according to ancient methods. Among the social and economic factors which have prevented an increase in food production has been “the uncertainty which surrounds the problem of land tenures”.\(^2\) This uncertainty has now been removed by the enactment of land reform legislation in 1959.

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Wages in industry are much higher than in agriculture, averaging 62 rupees per month as against an average of 33.12 rupees in agriculture. Factories also provide steady employment throughout the year, whereas in agriculture there is underemployment. As a result, the cultivator tends to seek any opportunity, however temporary or however modest, of adding to his resources. Often he will leave his share of a family property to be cultivated by other members of the family and contribute to their support with the work he finds elsewhere.¹

Agricultural labourers, tenants and sharecroppers leave agriculture in order to improve their status. Although labourers constitute only 10.6 per cent. of the agricultural labour force, this low percentage is misleading, since the status of certain large categories of sharecroppers resembles that of the landless hired worker. The over-all position of agricultural labour is no better than in India. The labour supply far exceeds the demand; except in the harvesting season, employment is available for not more than 15 to 20 days a month in East Pakistan and for not more than five months in the year in West Pakistan.

The position of the labourers, especially in East Pakistan, has worsened since partition because of the cessation of permanent or seasonal migration to West Bengal (India). Employment opportunities within the country have not increased sufficiently to compensate for this decrease in demand for labour. The numbers of landless agricultural labourers are further swelled by tenants and owners who are forced to work as agricultural labourers because their holdings are too small to support them; 39 per cent. of all tenants in East Pakistan are forced to offer themselves for hire.

A large proportion of farm holdings are uneconomically small. Between two-fifths and one-half of the cultivators in Pakistan work less than 5 acres of land. The majority are tenants-at-will or sharecroppers. In East Pakistan the greater part of the arable land continues to be cultivated by the bargardar (or sharecropper) who has no permanent hereditary or transferable rights in the land. In West Pakistan, especially in Sind, land is cultivated by haris who are often described as tenants, but who for all practical purposes may be considered as farm labourers.

Pull Factors.

Economic development in Pakistan has been concentrated largely in the industrial sector. Employment in industrial undertakings has increased with industrial expansion. The index of industrial production rose from 100 in 1950 to 445 at the end of 1958.

In West Pakistan industries are more highly centralised than in East Pakistan, and conditions appear to be similar to those prevailing in Indian cities. There are, however, no recent published data on conditions in urban centres in West Pakistan, and for East Pakistan about the only recent source of information is a U.N.E.S.C.O. study on conditions in Dacca.¹ Lack of data therefore makes it difficult to comment on the background and attitudes of factory workers in the country as a whole.

In East Pakistan factories are located in semi-urban and rural areas by reason of favourable transport conditions, and in particular the wide network of rivers, availability of the main raw materials, such as jute, hides and skins, and the recent development of hydroelectric power in rural and semi-rural areas. Forty-eight per cent. of the factory workers surveyed in Dacca continue to reside with their families in the village while they supplement the family income by employment in factories ², and 53 per cent. still possess some agricultural land. The majority of those who seek factory employment are small landowners and tenants with uneconomic holdings. This has had certain repercussions on factory operations, e.g. in the form of markedly higher absenteeism during the sowing and harvesting seasons. Employers, however, have reconciled themselves to this state of affairs and have made the necessary adjustments in their production schedules. In Narayanganj, which has recently developed as an urban centre, factories are located in the rural area itself, so that land is being cultivated in the immediate vicinity of the factory, and the working shift has been so arranged that after each working period of four hours there is an interval of four hours for agricultural operations, the factory workers getting more time off during the peak agricultural seasons to work on their farms. Moreover, industries manufacturing rubber goods, bricks and tiles have recently been developed within a radius of ten miles from Dacca. Here also the workers combine factory work with agriculture.

According to the U.N.E.S.C.O. survey, the combination of agriculture with industrial employment has not proved an unmixed blessing for the cultivators. The land purchased by the jute mills in Dacca was acquired by government intervention, and farmers were inadequately compensated; payment was made in instalments, and the money was spent on consumption instead of being invested. In some cases the villagers were disappointed because they were not recruited for factory work, the millowners preferring to obtain trained factory labour elsewhere.

¹ The Social Implications of Industrialisation and Urbanisation, op. cit., pp. 107 ff.
² Ibid., p. 118.
Future Policy

Both the draft Five-Year Plan and the Development Programme for 1959-60 attach great importance to agricultural development aimed at ensuring a better balance between agriculture and industry. Between the years 1956/57 and 1957/58 public expenditure on agriculture and rural development doubled, from 144 million rupees to 300 million. The Development Programme for April 1959 to June 1960 is heavily weighted in favour of the productive sectors, including agriculture, water and power, fuels, minerals, transport and communications, which together account for 82 per cent. of total expenditure. The aim is now to increase agricultural production in order to make the country self-sufficient in food grains.

One of the first steps taken by the Government which came to power in 1958 was to enact land reform legislation for West Pakistan, fixing ceilings on land holdings at 500 acres of irrigated and 1,000 acres of unirrigated land; land in excess of the ceiling is now being taken over by the Government for redistribution among tenants and other farmers, the landlords having received compensation in the form of interest-bearing bonds redeemable in 25 years.

As to general agricultural development, major and minor irrigation projects are being financed by the Government; farmers are encouraged to adopt the Japanese method of rice cultivation, especially in East Pakistan, where it gives higher yields; the use of fertilisers by farmers is subsidised; agricultural colleges and institutes have been set up, with the assistance of foreign experts. Community development is encouraged through the so-called V-AID programme, which aims in particular at the utilisation of idle or unemployed rural labour.

In the industrial sector, the policy of the Government is to assist all industries, especially medium and small-scale undertakings, which are to be set up both in the cities and in the rural and semi-rural areas, with the object of avoiding a larger influx into the towns and an increase in urban unemployment.

Japan

Since 1868, the date of the Meiji restoration, which marks the beginning of Japan's period of modernisation, the rapid rate of population growth in a small and densely peopled area has given rise to an extremely serious problem of manpower utilisation. Even before this period, the country was densely peopled and the population was increasing fast. Between 1872 and 1940 the population doubled, increasing

\(^1\) Village Agricultural and Industrial Development.
from 35 to 73 million. Yet the rural population did not increase.¹ Modernisation meant that vigorous industrial and commercial development absorbed the whole of the natural increase of the rural population into urban employment, even beyond replacement needs in agriculture and in addition to the natural increase of the urban population.

**Agricultural Labour Force Trends**

In consequence, agriculture’s share in the total labour force declined steadily during this period:

> The percentage of all households engaged in agriculture declined from 71 per cent. in 1884 (20 prefectures) to 64 per cent. in 1904, 60 per cent. in 1909, and 58 per cent. in 1919.² From 1920, when the first census was taken, to 1930 the labour force in agriculture remained constant at about 13.7 million; between 1930 and 1940 it even declined slightly.

As compared with other Asian countries, Japan in this period was therefore remarkably successful in checking the increase of the agricultural labour force. There was no time lag between the impact of the changing world economy and national industrial development, as there was in India, and in consequence Japan’s occupational structure in this period achieved a better balance than that of India:

> It was only this substantial rural exodus of the native-born that enabled the decline of mortality to coexist with high fertility for decades without leading to intolerable increases in the number of people attempting to secure a living from the limited land.³ To have avoided an increase in the agricultural labour force represents a considerable achievement in view of the extremely rapid growth of the total labour force.

From the standpoint of farming efficiency and the rural living standard, the manpower situation was not as favourable as it would have been if the movement out of agriculture had been fast enough to reduce the size of the farm population. But the farm population remained constant, as did the number of farm households and the farm area. Thus “Japan’s agricultural problem lay in the fact that those three fundamental figures remained stationary”.⁴ The rural

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² Ibid., p. 321.
³ Ibid., p. 338.
standard of living was, however, raised by intensification of cultivation: up to 1940 crop yields rose considerably. It was also raised by the provision of subsidiary employment in home crafts and local small-scale industries, which offered additional income to a large section of the farm population. Up to 1940, therefore, the problem of the rural living standard was contained, though it was not solved.

Since the Second World War the problem has become much more serious. Between 1940 and 1950 the total population increased by 10 million, reaching a total of 83 million in 1950. The labour force in agriculture, though continuing to decline in relation to the total labour force, increased in absolute numbers, reaching a total of 17,220,000 in 1950 as compared with 14,687,000 in 1930. As a result of the war employment in manufacturing industry contracted by 1 million, while employment in services (and chiefly in government services) increased by 1.1 million. Most of the increase in the labour force was therefore absorbed into agriculture, as table 41 shows.

**TABLE 41. JAPAN: AGRICULTURAL AND TOTAL LABOUR FORCE, 1920-54**

(Thousands)

<table>
<thead>
<tr>
<th>Year</th>
<th>Agricultural labour force</th>
<th>Total labour force</th>
<th>Agricultural labour force as percentage of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1920</td>
<td>14,661</td>
<td>26,733</td>
<td>55</td>
</tr>
<tr>
<td>1930</td>
<td>14,687</td>
<td>29,049</td>
<td>51</td>
</tr>
<tr>
<td>1950</td>
<td>17,220</td>
<td>35,000</td>
<td>49</td>
</tr>
<tr>
<td>1954</td>
<td>18,060</td>
<td>39,930</td>
<td>45</td>
</tr>
</tbody>
</table>

1 Forestry and fisheries included.

Since 1954 there has been some decline in employment in agriculture, forestry and fisheries. Total employment between September 1950 and September 1956 increased by 6.1 million (from 36,480,000 to 42,580,000), while employment in agriculture, forestry and fisheries declined from 18,530,000 to 17,950,000, representing a decline from 51 to 42 per cent, of the total employment figure. Thus the labour force in agriculture now remains stabilised at a much higher figure than before the Second World War.

The number of farm households has also increased. In 1950 the number was 6.2 million, as compared with 5.5 million in 1941. Farms have increased in number and grown smaller: in 1952 the average farm
size was 2.25 acres. Land reform and the new law of inheritance, which has introduced division among male heirs, are in part responsible for these changes. Some reduction in the number of farm households and farms has since taken place, but both totals remain much larger than they were in the inter-war period.

Factors Influencing the Occupational Shift

Food production in 1954-56 exceeded the pre-war total by 26 per cent. In spite of the increase in the farm labour force, real agricultural income per head in 1954 was slightly higher than in the inter-war period, as a result of higher prices and crop yields, and in 1955—a bumper crop year—was considerably higher. However, real income per head in agriculture represents only one-third of income in other sectors, and the disparity has widened in the post-war period.¹

Wage differentials between agriculture and manufacturing industry have also increased. In the immediate post-war period wages in agriculture were higher than in manufacturing industry, but by 1954 had fallen to 43 per cent. of the level in manufacturing.²

The low relative level of agricultural wages and the very low relative level of agricultural income among the smaller farmers with a fraction of an acre of land are strong push factors. But wider distribution of ownership, greater security of tenure and lower land taxes exert a pull back into agriculture. Though industrial earnings are much higher, the pull of expanding employment is not strong, since there is some urban unemployment.

In consequence, the rural exodus takes a new form. Workers continue to leave agriculture, as before. But a large proportion of farmers and members of their families remain on their farms, engaged in subsidiary occupations or carrying on farming as a subsidiary occupation. Non-agricultural income in 1952 represented 34 per cent. of farm income, as compared with 21 per cent. in the inter-war period.³ Handicrafts and small-scale local industries have long been combined with farming. This combination is indeed one of the most striking features of the Japanese economy. Since the Second World War, however, subsidiary work in the farm household has changed its character. It is not confined, as it was in the past, to home or local handicraft production.

³ Economic Survey of Japan, op. cit., p. 117.
integrated with agriculture, but takes the form of industrial employment combined with occasional or seasonal work on the farm:

... The so-called surplus population is not completely discharged from the farm, and a labour population which leaves one foot in the farm household and places the other in other industries has been born... Thus a labour population exists... which can be said to be a sort of buffer population, wavering between the agricultural and non-agricultural sectors.¹

This situation may be regarded as beneficial from the standpoint of the farm population, since "side-line business" enables the poorest farmers to add appreciably to their incomes. But, from the standpoint of the labour force as a whole, the existence of large numbers of workers willing to accept low-paid employment may have a depressing effect on the industrial wage level:

... In any event, in case general employment conditions become worse, the abundant farm labour force in rural districts on a low wage level may become a potential element for the introduction of drastic measures in connection with labour wage standards in Japan.²

_Future Policy_

In view of the critical employment situation, the high proportion of food imported, and the threat to urban wage standards constituted by the part-time farmers, efforts are being made under the current Five-Year Economic Plan to increase productivity and employment in agriculture. By 1960 it is hoped that farm production will have increased by 2.3 million tons, or 15 per cent., and that the productivity of labour in agriculture will have increased by 2.5 per cent. Agriculture is expected to absorb an additional 760,000 workers.

_Consclusions_

The central problem common to the three countries reviewed in this chapter is that the rate of movement of labour out of agriculture is much too low from the standpoint of the over-all occupational balance, and also from the standpoint of the efficiency of the agricultural labour force.

In the three countries the problem emerges in different forms. It is most serious and intractable in India because labour moves into low productivity urban sectors; to a large extent migration represents a shift of surplus labour from the village to the city. New investment is insufficient to offer expanding employment opportunities either outside agri-

¹ TOBATA, op. cit., pp. 19-20.
culture or in agriculture itself. In Pakistan basically similar background conditions determine the push factor, but the pull factor of expanding employment is stronger and the rate of migration is apparently high enough to hold the growth of the agricultural labour force in check. In Japan the problem of rural congestion, previously contained over a long period, now emerges in an accentuated form, as an unstable type of agricultural-industrial employment relationship.

Is there anything that can be usefully said about this central problem that has not already been said many times? Greater efforts to increase land and labour productivity; decentralisation and development of small industries; community development—all of these are possible approaches to the problem of making a little go a long way. To discuss the relative merits of these measures, and how best to combine them with one another, is beyond the scope of this study. But from the review of conditions in Pakistan, in particular, an important fact emerges which is not always sufficiently appreciated in discussion of the problems of surplus farm population—namely that, although the rate of migration appears to have risen sufficiently to check the increase of the agricultural labour force, farm production has failed to increase, partly because the rate of investment in agriculture is too low to overcome natural obstacles (such, for example, as soil salinity) and partly by reason of price controls and institutional conditions.

In any discussion of the problems raised by the growth of the agricultural labour force in densely populated countries it is rightly argued that the main remedy for the downward pressure on the living standard must be to reduce the number of workers in agriculture. But it is too often assumed that reduction of the labour force will automatically increase farm labour productivity. The experience of Pakistan shows that this is not necessarily the case and that the level of agricultural output is determined by several factors other than the pressure of labour on the land.

It would seem, therefore, that the problem of relieving the pressure of surplus population in congested land areas will not be solved merely by accelerating the rate of movement—although such acceleration is an essential condition of improvement in agricultural incomes—but that efforts should also be made to raise the level of output per acre. It is significant that Japan, where levels of output per acre are much higher than in India or Pakistan, is concentrating on this method of increasing agricultural employment.
CHAPTER VI

COUNTRIES IN PROCESS OF RAPID DEVELOPMENT

The present chapter deals with the movement of labour out of agriculture in countries which are developing rapidly. In most of these countries industry—and, above all, mining—provides the dynamic of growth, and the level of agricultural development is as a rule not commensurate with natural resources. The essential feature which these extremely heterogeneous economies have in common is the contrast between industry and agriculture in organisation, methods and levels of productivity. Industry uses modern methods and much capital, while agriculture is primitive or very extensive and uses little capital.

Countries which exhibit this contrast vary greatly in their agrarian structure and demographic conditions. Of those dealt with in this chapter, Venezuela has a large estate system with peasant smallholdings, and Brazil a mixed structure with large extensively cultivated estates, intensively cultivated plantations, medium-sized grain growing farms and primitive communal tenures; Iraq is sparsely populated, with the greater part of the land area held in very large estates worked by sharecroppers. Some central African territories are very sparsely populated, with the land held in communal tenure for subsistence farming. The rate of increase of agricultural production varies greatly. Levels of labour productivity in agriculture are, however, generally very low.

Industry, on the other hand, shows comparatively high and rising levels of productivity, and mining industry shows extremely high levels, owing to the very large amount of capital invested per worker. Countries with large mining or oil extraction industries present the extreme case of this one-sided type of development. Such industries are financed mainly by foreign capital and supply export markets, so that their expansion is not affected by the low level of productivity in other sectors of the economy. In these countries investment rates are extremely high. In the Belgian Congo in 1951, for example, capital formation represented 21.7 per cent. of net domestic product and in Southern Rhodesia, in 1950, 45.5 per cent. In Venezuela the rate of investment during the early 1950s was 23 per cent. of gross national product.¹ In Iraq, in 1956, gross

public and private investment represented 27 per cent. of national product.¹

Thus, in contrast with some of the overpopulated countries considered in the preceding chapter, there is no shortage of capital for industrial expansion. But development tends to be concentrated in the industrial sector and predominantly in one branch of it. This is, of course, no disadvantage to the economy; a highly productive industry can provide a stimulus to general expansion, just as a highly efficient agricultural economy provided a stimulus for development in North America in the second half of the nineteenth century. In that period industry and agriculture were reciprocally related in their development; the profits earned by the export of agricultural produce helped to finance investment in industry and transport, while industrial and commercial expansion in turn created growing urban markets for food and supplied agriculture with equipment to raise its efficiency.

But in the rapidly industrialising countries of the present day expansion tends to remain one-sided. Great differences in levels of productivity between the export sector and other sectors of the economy may persist because the profits earned in the export sector are reinvested in the same industry and do not necessarily increase the supply of capital in the rest of the economy, unless development plans provide for their “ploughing back” into capital construction for the country at large. Moreover, owing to the capital-intensive nature of the expanding industry, the volume of employment created in the industry itself may not be large, although employment in the urban sector is likely to expand as a result of the need for services connected with the main industry and also as a result of the increase in incomes, which tends to increase the demand for labour in urban occupations.

The increase in urban purchasing power will lead to an increase in the aggregate demand for food, and hence to an increase in food prices. If agricultural production increases, there should be an increase in agricultural employment and incomes. But the supply of food may prove to be highly inelastic, even though land and labour are not in short supply. In several of the countries discussed below natural conditions are obstacles to increased production as, for example, in Brazil (periodic droughts and soil exhaustion) and in Iraq (soil salinity). These obstacles may be insuperable without large-scale public investment in irrigation and drainage. The expansion of agricultural production may also be hampered by lack of roads and transport, as in Venezuela (where it is said to be cheaper to import an egg by air from the United States than

to bring it by road from the interior to the capital). The agrarian structure may be a further obstacle to increased production of food as, for example, in communal land tenure systems where methods of cultivation are primitive, or in large estate systems where extensive use of the land for livestock grazing brings in a secure income without new capital outlay and additional costs of management.

Supply rigidities are particularly striking in Latin America, where structural disequilibrium of this kind is a general condition, although the agricultural potential in most countries is high. The failure of agricultural production to keep pace with increasing food demand is due, not to a general shortage of manpower in agriculture, but to insufficient investment. In the countries which export industrial products as, for example, Venezuela, the increasing demand for food can be met by imports. Others, notably Bolivia, cannot import sufficient food to meet the increasing demand, and food shortage is a factor limiting development. Food prices remain high. In some countries, notably Chile and Argentina, the supply of agricultural produce is highly inelastic in spite of mechanisation.

In these conditions the conjunction of strong pull factors in the urban sector and strong push factors in agriculture will give rise to rapid movement to the cities. The important question is whether such movement will tend to raise agricultural incomes and stimulate investment in agricultural production, both by increasing the demand for food and by creating a shortage of labour on the land. In the advanced countries, as was emphasised in the earlier chapters, the movement of labour out of agriculture has been one of the factors tending to raise farm incomes because it has generally been accompanied by increased investment in agriculture and acts as a balancing factor, tending to raise farm incomes nearer to the level of incomes in other occupations and so weakening the push factors. If the movement of labour does not have this effect, and low incomes and bad working conditions persist in agriculture, migration may continue until the shortage of labour reduces the volume

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1 In 1955 the production of foodstuffs per head of population in Latin America was only 94 per cent. of the pre-war level, and thus did not cover the increased demand for food, even by pre-war consumption standards. (United Nations: The Selective Expansion of Agricultural Production in Latin America, joint report of the Economic Commission for Latin America and the Food and Agriculture Organisation (New York, 1957), p. 14.)

2 Rates of investment in agriculture in Latin America are low by comparison with the rate of investment in other sectors. In 1950-54 the net annual investment rate in industry, building, mining and services was about four times higher than it was in agriculture; and the stock of fixed capital per active person in 1954 was four times as high in the non-agricultural sectors as it was in agriculture. (Ibid., p. 9.)

of agricultural output. Unfortunately, lack of data on farm incomes and wages precludes definite conclusions on the effects of migration in the countries concerned.

The following sections briefly describe the situation in several rapidly developing countries which, for the purposes of the discussion, have been divided into two main groups: those in which the movement out of agriculture is a one-way process, similar in this respect to the movements discussed in earlier chapters; and those in which labour tends to move to and fro under the contrary influence of expanding industrial employment and other factors which exert a pull back into agriculture.

ONE-WAY MOVEMENT

Brazil

Brazil's rapid development in recent years—evidenced by a 50 per cent. increase in national income between 1948 and 1956—has been concentrated mainly in industry, particularly mining, and urban occupations generally. But its position in world markets is still that of an agricultural exporter: it has successively held first place as an exporter of sugar (in the seventeenth century), gold (in the eighteenth century), rubber (from 1880 to 1910) and coffee (since the mid-nineteenth century). Coffee, sugar, cacao and cotton still provide four-fifths of total exports. Early export crop specialisation led to rapid commercialisation of production and exhaustive exploitation of the best and most accessible land. Food production for the internal market has been neglected; subsistence agriculture remains primitive. Hence the economy now suffers from a dual lack of balance: between industry and agriculture, owing to the preponderance of investment in the former; and, in agriculture, between export crops and food production.

The various currents of migration are determined by these unbalanced conditions. In addition to the usual push factor of low relative incomes in agriculture, several other factors strongly influence the movement: climatic instability, exhaustion of old soils and shifts to new land, and fluctuations in world prices. The volume of migration is large, and the evaluation of its extent and effects is difficult, partly because comparable figures are lacking and partly for reasons which will be apparent from a brief survey of the outstanding features of the economy.

Of these, the most important is the sheer size of the country. With a population of 52 million in 1950, and an area larger than that of the United States, Brazil contains half the population and covers half the
area of the South American Continent. There are great climatic varia-
tions between regions of high rainfall and others which suffer from
periodic drought, and great differences in types of farming, levels of
living, and the distribution of the population. For an understanding,
therefore, of the demographic and economic phenomena in Brazil,
account must be taken of the great diversity between the various regions
of the country. Applying this criterion to a consideration of the Brazilian
economy "attention is immediately drawn to the south-eastern region,
formed by the states of Minas Gerais, Espirito Santo, Rio de Janeiro,
Sao Paulo and the Federal District, as being the region having the lowest
percentage of rural population relative to the total population. Of the
total population of this region 52.1 per cent. live in the rural area, while
the generic index for Brazil as a whole is 63.8 per cent. Although the
latter percentage is comparable to that of countries having the largest
rural populations in the world, the former figure is closer to that of the
least ruralised countries . . . ." 1 Because of immense distances and lack
of communications, there can be surpluses of labour in some regions
and shortages in others; the question whether there is an over-all shortage
of labour—as is often alleged—is unanswerable. Lack of communica-
tions is also an important obstacle to agricultural expansion, since the
high cost of transport to the main urban centres prevents agricultural
development of the more remote regions and gives rise to shortages of
food, even though there is no shortage of land.

The great diversity in socio-economic structure is reflected in the
contrast commonly drawn between the "two Brazils"—the old and
the new. This contrast does not arise from a duality of cultures of
different origin, such as exists in other Latin American countries, but
from differences in degree of technical progress, ranging from very
primitive types of cultivation in remote regions of subsistence farming
to modern forms of cultivation in commercial agriculture and advanced
production methods in industry. Broadly speaking, old Brazil lies to
the north, and modern Brazil to the south. But the geographical frontier
cannot be clearly delimited, since the southern states include many
enclaves of the old, while the north-east includes states which belong to
the new (as, for example, Pernambuco). Rural Brazil, so far as subsist-
ence farming is concerned, is archaic and uses such primitive methods
as shifting cultivation, with "slash and burn" forest clearing, while the
new Brazil is represented by export crop production and intensive
monoculture. Both have followed the practice of using land to the point
of exhaustion, and then shifting to new soils, simply because more land

1 J. F. de CAMARGO: Exodo Rural no Brasil, University of Sao Paulo, Faculty of
was available. It is in the primitive areas, particularly the dry north­
east, that the main reserve of surplus labour is found, while shortages
of farm labour occur in the modern farming regions of the south.

Land use is extraordinarily extensive. The 20 million hectares of
land under cultivation (about equal to the arable area of France)
represent only 9 per cent. of the total area in farms, the remainder
consisting of grazing land (46 per cent.) and forests or uncultivated
areas. Of the area under cultivation, about one-third (6.7 million
hectares) grows coffee, cotton, cacao and sugar; another third grows rice,
wheat, beans and manioc, while the remainder is under maize. Brazil
is an impressively large cattle breeder, but production is generally of an
extensive type. In 1956/57 the United States, with its 95 million head
of cattle (as compared with Brazil's 66 million) produced five times
as much meat and 15 times as much milk as Brazil. Grain yields
compare unfavourably with United States yields, which are twice as
high in maize and 50 per cent. higher in wheat.

The agricultural census of 1950 distinguishes three main types of
farming—crop production, mixed farming with livestock and crops,
and specialised livestock farming. About 60 per cent. of the holdings,
with 50 per cent. of the cultivated land, and rather more than 50 per
cent. of the farm labour force, are classified in the first category. Some
30 per cent. of the holdings are mixed farms; these account for 40 per
cent. of the cultivated land and 35 per cent. of the farm labour force.
Finally, specialised livestock production—i.e., cattle grazing—covers
most of the total farm area and employs about 10 per cent. of the farm
labour force.

In spite of the vast size of the country and its small population, the
area of cultivated land per inhabitant in Brazil is smaller than in most
countries of Europe, and the area per person engaged in agriculture is
considerably smaller, amounting to only 2.2 hectares.\(^1\) The small
acreage of cultivated land is compensated for by the large area of grazing
lands used for livestock; but comparison with conditions in Europe and
North America nevertheless leaves the impression of a country which
is more “ occupied than settled ”.\(^2\)

Although the agricultural potential is great, expansion of the
cultivated area has slowed down. The years from 1920 to 1940 were a
period of rapid expansion in agriculture; the area of land under plough
increased from 6.6 to 18.8 million hectares, whereas from 1940 to 1950

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\(^1\) In Italy the ratio is 2.6 hectares, in France 4.2 and in Sweden 7.2, while in the
United States it is 28 hectares.

\(^2\) T. L. SMITH: Brazil: People and Institutions, revised edition (Baton Rouge,
only 0.2 million hectares were added to the arable land area. Between 1940 and 1950 the area of cultivated land in fact decreased in all regions of Brazil, with the exception of the south, where it increased by 1.5 million hectares. The largest decreases took place in the north (from 0.9 to 0.2 million hectares) and in the north-east (from 4.2 to 3.8 million hectares). Similarly, the number of holdings tripled between 1920 and 1940, but almost came to a standstill between 1940 and 1950, increasing only from 19 to 20 million.

The natural conditions of agricultural production are highly unstable. Periodic droughts of great severity affect the north-eastern region. Economic instability results from dependence on export markets for the intensively cultivated crops. Soil erosion has resulted from over-cultivation of the best lands, particularly in the coffee-producing areas. But profits in export crops have in the past been very high; agriculture is unbalanced because food production offers less return, and therefore does not keep pace with the growth of the population. Wheat is imported to meet the increasing demand. In recent years consumption of wheat per inhabitant has risen by 70 per cent. above the inter-war level, owing partly to substitution for maize.

The growth of the population during the present century has been among the fastest in the world, the total having increased from 17 million in 1900 to 52 million in 1950. In recent decades the rate of increase has been rising rather than falling.

Currents of Migration.

All these factors influence large-scale migratory movements. One Brazilian authority notes:

The 1940 and 1950 censuses showed that 3.4 million Brazilians in the first and 5.2 million in the second case lived in federal States other than those where they were born, these figures corresponding respectively to 8.5 per cent. and 10.3 per cent. of the total number of births registered in Brazil. Such percentages testify that the rate of migration was not only considerable, and indicative of the great mobility of the Brazilian population, but also increased during the decade in question...1

The same author states:

Research on the State of origin of the Brazilian population covered in the 1940 and 1950 censuses enabled the intensity of such population shifts to be measured and their direction to be determined. It was shown that most of these movements took place from the country to the towns, which latter developed at the expense of the rural areas.... In other cases shifts from one

rural area to another were registered; these did not signify a mere change of residence, but, in essence, a transfer of rural population from a sphere of subsistence economy to a commercial environment.¹

The main pull-factor influencing the movement of rural workers to the cities is represented by the industrial-urban triangle formed by the states of Rio de Janeiro, Minas Gerais and São Paulo. The rate of urbanisation is very high. Between 1940 and 1950 the 158 urban centres with over 5,000 inhabitants increased their population by 3.8 million or 44 per cent.; of this increase, about 40 per cent. was natural while about 60 per cent. resulted from internal migration.² Labour moving out of agriculture from regions adjacent to the cities is replaced, in general, by migrants from the north-east.

The cities in the industrial triangle Rio de Janeiro-Minas Gerais-São Paulo are, however, not alone in showing a rapid demographic increase due principally to internal migration. During the inter-census period, the same cause led to population increases in cities such as Recife, São Salvador, Porto Alegre, Fortaleza and Belem, the proportions varying from 75.86 per cent. (in the case of Recife) to 28.88 per cent. (in the case of Belem); this reflects the extent of the movement towards the cities within their own physiographic areas.³

Migration from one rural area to another may be classified in various ways. One author distinguishes between three main currents: (a) one originating in the north-east and moving towards rural work in São Paulo and the north of Parana, settling also in areas in Minas Gerais and Rio de Janeiro; (b) another current moving from the interior of the north-east to the interior of the Amazon basin; at present this is on a relatively small scale, but during the past 20 years it has attained a fairly large volume at times; and (c) a current which originates in the interior of Rio Grande do Sul (in the extreme south of Brazil) and moves towards the west of the contiguous state of Santa Catarina, the population of which is consequently increasing and, in its expansion, has already reached the territory of Parana.⁴

Of all these migratory currents the most important is that formed by emigration from the subsistence farming regions of the north-east to the rural or urban areas in the south. This provides a constant flow of labour

¹ T. P. ACCIOLY BORGES: op. cit., p. 7
which swells to a mass displacement of population in time of drought. It is calculated that the severe drought of 1952 in north-eastern Brazil caused the emigration of some 300,000 inhabitants into the southern states. The drought of 1958 affected equally large numbers. These shifts, however, often take the form of alternating movements, as the migrants return to their villages when rainfall permits cultivation, after a period of employment in the city or in commercial farming.

Labour reaching the cities from the north-eastern areas is absorbed mainly in the building trade but other industries also take a share of it. On the other hand, some of these migrants move to rural areas adjacent to the cities, where as has been stated, they replace labour moving out of agriculture. Others move into less heavily populated areas. It is, in fact, a true exodus to the south, into agriculture, towards —

... the frontier which separates the agricultural section of the country from the thinly populated districts in which a rudimentary grazing economy or a primitive collecting mode of existence has undisputed sway. In the 1930s the onslaught was upon the forests of western São Paulo, with rich coffee fazendas and thriving populous cities springing up in areas that only a few years earlier had been absolutely desolate. Today the struggle goes on at many places, with the agricultural occupation of the westernmost parts of São Paulo, the rapid development of a new coffee district in northern Parana, the extension of coffee and cotton culture into the southern part of Mato Grosso and the influx of population into central Goias ranking as the most important.

The over-all picture is confused because, in addition to the movement of labour attracted by expansion in the urban sector, there are even bigger shifts of population caused by agricultural conditions. Adverse climate, soil exhaustion and poverty in the old Brazil drive workers into the urban industries and commercial agriculture of the new. The rapid centripetal movement of labour into the cities is caused largely by the shortage of food, which centrifugal movement towards the farming frontiers should help to counteract by bringing new areas into production. The difficulty of estimating the extent and evaluating the effects of migration is thus largely inherent in the situation itself, and it is not due only to the lack of comparable data, since the application of statistical analysis is rendered difficult by the diversity of conditions.

**Agricultural Labour Force Trends.**

Changes in the agricultural labour force between 1940 and 1950, as revealed by population census figures, are illustrated by table 42.

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1 M. DíEGUES JÚNIOR, op. cit., p. 114.
TABLE 42. BRAZIL: PERSONS 10 YEARS OF AGE AND OVER ECONOMICALLY ACTIVE IN AGRICULTURE AND STOCKBREEDING, 1940 AND 1950
(Thousands)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total labour force</th>
<th>Agricultural labour force</th>
<th>Agricultural labour force as percentage of total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Males</td>
<td>Females</td>
</tr>
<tr>
<td>1940</td>
<td>14,758</td>
<td>8,183</td>
<td>1,270</td>
</tr>
<tr>
<td>1950</td>
<td>17,117</td>
<td>9,154</td>
<td>733</td>
</tr>
</tbody>
</table>


Excluding students and domestic workers.

In comparing these figures it should be noted that a large number of women who, according to the criteria used in the 1940 census, should have been classified as active in agriculture, were in 1950 classified under the heading "unpaid housework". The decrease in the number of women engaged in agriculture is therefore more apparent than real.\(^1\)

Table 43 gives a breakdown by occupational status and by sex of the agricultural labour force in 1940 and 1950, based on the censuses of agriculture for those years.

TABLE 43. BRAZIL: PERSONS OCCUPIED ON FARMS, BY OCCUPATIONAL STATUS AND BY SEX, 1940 AND 1950
(Thousands)

<table>
<thead>
<tr>
<th>Year</th>
<th>Workers on own account and unpaid family members</th>
<th>Other agricultural workers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males</td>
<td>Females</td>
<td>Total</td>
</tr>
<tr>
<td>1940</td>
<td>3,634</td>
<td>2,081</td>
<td>5,715</td>
</tr>
<tr>
<td>1950</td>
<td>3,934</td>
<td>2,088</td>
<td>6,022</td>
</tr>
</tbody>
</table>


The discrepancy between the figures given by the population censuses and the censuses of agriculture—the former showing considerably higher totals for men and lower totals for women than the latter—may derive from the fact that certain categories of persons engaged in agriculture were not registered under the agricultural census (as, for example, squatters not bound to landowners by formal contracts). Different\(^1\)

\(^1\) Workers included in the category "unpaid housework and student activities" increased from 11.3 to 16.4 million between 1940 and 1950; women in this category totalled 10.1 million in 1940 and 14.8 in 1950.
criteria in the two censuses may also account for the discrepancy as to the number of women engaged in agriculture: the importance of female labour is greater than is indicated by the population censuses. In addition, the 1940 and 1950 figures for workers other than self-employed farmers and unpaid family members are not comparable.

The addition to the male agricultural labour force between 1940 and 1950, according to the population censuses, is roughly 1 million—showing a rate of increase considerably lower than the rate of increase of the population as a whole (2.5 per cent. per year). Assuming the same rate of natural increase in the male farm population as for the whole population, the natural increase in the agricultural labour force over a period of ten years would amount to roughly 2 million. It may therefore be assumed that a large movement of people out of agriculture took place, even though the labour force in agriculture is still increasing.

The population censuses do in fact show a rather rapid decrease in the share of agriculture in the total labour force—from 64 to 58 per cent. between 1940 and 1950. These figures should, however, be seen in the light of the fact that a very large proportion of the population in Brazil is engaged in unpaid household work, a category excluded from labour force statistics and which fluctuates considerably in size from census to census owing to changes in classification. In 1950 unpaid housework and student activities accounted for 16.4 million persons, a number almost equal to the total labour force in all other sectors. The increase in this category between 1940 and 1950 was 5.1 million, as compared with only 2.4 million in the total labour force. For these reasons, the relative changes in the distribution of the labour force as indicated by the population censuses can only be regarded as rough approximations.

Social Causes of the Movement out of Agriculture.

In addition to the causes mentioned above, i.e. the push factors of natural and economic instability in agriculture, and the pull of urban expansion, there are important institutional factors which influence the movement out of agriculture.

Of these, unequal distribution of land ownership is one of the most important. Even by North American standards, Brazilian farms are on an average very large. More than half the total area in farms, and less than 2 per cent. of the total number of farms, consists of holdings larger than 1,000 hectares. Holdings under 100 hectares account for 16.5 per cent. of the farmed area and represent 85 per cent. of the num-

1 Including general agriculture and stockbreeding, but excluding forestry which, in any case, is not important in Brazil.
ber of farms. About 60 holdings exceed 100,000 hectares and between themselves cover an area equal to three times the total farm area of the Netherlands and 12 times that of Norway. Such holdings consist mainly of grazing and forest land, and the area under cultivation is only a small fraction of the total. The average area of cultivated land per holding is about 10 hectares, and the cultivated land is more evenly distributed among size groups than is the total area in holdings.

Conditions of employment on large estates are economically unstable and socially rigid. For rural migrants, hitherto independent in their primitive communities, the transition is often painful. Rural wage earners total some 3.7 million and are the only large group (with the exception of domestic servants) still outside the scope of social legislation. Rural health conditions are extremely bad. The farm labourer displaced from the old Brazil does not easily find social integration in the modern developing economy.

Effects of the Movement.

Available data on the growth of urban employment are not adequate, but it would seem that the number of jobs in industry in recent years has been almost stationary owing to the mechanisation of large-scale industry. Thus, while production and national income have risen rapidly, there has not been a proportionate increase in industrial employment. The number of potential workers exceeds the number of jobs; there is a large group of urban unemployed, or semi-employed, who reside in the essentially non-urban quarters of big cities, in the shanty towns and quasi-rural slums known as favelas. In Rio de Janeiro these have a population estimated at 640,000 persons, including a high proportion of unemployed. Socially speaking, the exodus frequently amounts to nothing but the transfer of the rural underemployed into the class of urban unemployed—at least during the period immediately following their migration to the towns. Among the features of the employment market resulting from the workers' imperfect adaptation to urban work are a high labour turnover and an extraordinary frequency of physical, mental and vocational maladjustment. Although the movement of labour to the city is necessary in order to provide industry with sufficient manpower, and although migrants undoubtedly benefit from it to some extent, the volume of migration is too large in relation to the opportunities. Consequently, the harmful results may well outweigh the benefits.

1 As shown by the findings of an economic and social survey by the National Agrarian Policy Committee, described by B. H. RAPOSO in Condições de vida na agricultura (Rio de Janeiro, 1955).
The question arises as to whether the continuance of these movements, on the same scale and for the same reasons, is likely to promote the future development of the country. There is an obvious need for increasing the volume of food produced for the internal market. How great the agricultural land potential may be is a matter for controversy, but the scope for technical progress is evidently very great:

... There can be no doubt that scientific agriculture can be applied successfully to Brazil and that its application would result in an increase of both the quantity and the quality of food products and in a decrease of the cost of food. In fact it is difficult to see how a country with so high a birth rate as that of Brazil can long avoid transforming its traditional exploitive agriculture to a farm system which provides more food at less cost per unit. If the change is too long delayed, the social and political consequences could be disastrous.¹

Shortage of labour is one of the main factors preventing the expansion of wheat production in the new wheat-growing regions of Rio Grande do Sul, Santa Catarina and the south of Parana, where 2 million hectares could be put into cultivation if various obstacles, including shortage of manpower, could be removed. Estimates of manpower requirements in the region over the next five years, based on different assumptions as to methods of cultivation, show that a very large increase in the present labour force will be needed.² The necessity for substituting capital input for labour may not be so great as the need for employing more of both in conjunction.

The question whether the centripetal pull deprives agriculture of manpower needed for future expansion cannot be answered without fuller information than is now available. Manpower, in the sense of "hands", may not be lacking so much as farming skill. The "marginal man" from the subsistence regions can easily find employment on a coffee estate or in building work in the city, but lacks the enterprise, capital and experience which are needed in the new farming regions. At present institutional factors keep farm labour at lower levels of living than is justified by the demand for food and the prospects of increasing production.

Wider dispersion of industrial production and urban services into smaller centres is needed to promote the expansion of agricultural production, as is improvement in communications. Land settlement projects in remoter regions are now uneconomic because the cost of transport to the main centres is too high; but, at the same time, the present centripetal movement certainly aggravates the existing uneconomic

¹ P. E. James: "Brazilian Agricultural Development", in Economic Growth: Brazil, India, Japan, op. cit., p. 100.
geographical distribution of population and does not provide a regional framework in which the new Brazil can easily supplant the old.

Remedies for the chaotic state of the employment market have included measures to arrest the stream of migration at its main source, the north-eastern region, by means of irrigation, water conservation and other public works, rural settlement schemes, the provision of electric power and industrialisation. Placement services may also be of assistance to migrants. But in view of the disequilibrium in the economy as a whole, and the great changes in the socio-economic structure which development inevitably must involve, it is obvious that measures to stabilise employment in general need to be linked with encouragement to agricultural production. A better balance in investment as between agriculture and industry, and as between export crops and food production, appears as a prerequisite for such stabilisation. Measures for the reform of the agrarian structure, accompanied by the introduction of better farming methods and the improvement of the status and skill of farmers and farm workers, in order to strengthen the independent farmer element in the agricultural community, would also appear to be among the policy considerations arising out of the present situation.

Venezuela

In Venezuela the rate of occupational change is very high. From 1941 to 1950 agriculture's share in the total labour force declined from 51 to 41 per cent. owing to the wide disparity between the rapid rate of growth of the total labour force (3.6 per cent. annually) and that, much slower, of the agricultural labour force (1.1 per cent.). The rate of labour movement out of agriculture is the highest in Latin America and, as revealed by the international comparisons given earlier in tables 1 and 2, is among the highest in the world.

Because Venezuela is the world's main oil exporter as well as a producer of iron ore and manganese, the rate of increase of industrial production, and also of the national income, is exceedingly high. National income per head is in fact the highest in Latin America. The rate of urbanisation (also the highest in Latin America) reflects the strength of the pull factors drawing labour out of agriculture.

Oil revenues account for a large share in the national income, and are "ploughed back" into the urban sector, mainly through large-scale investment in transport and public works:

...Venezuela has been for some time an "enclave economy" with a high investment rate concentrated in a modern export sector whose growth did not generate general economic momentum into the Venezuelan economy, but
in the past few years Venezuela may have moved into the category of economies experiencing an authentic "take-off".¹

But the "take-off" is delayed because the "ploughing back" policy does not include agriculture. In 1956 only 4 per cent. of the national budget was allocated to agriculture. As a result of tariff protection, production of some food crops has increased, and the country is now self-sufficient in rice, maize, potatoes and sugar. Food prices remain high, chiefly because transport costs are high.

Rural living standards are exceedingly low, and nearly half the population is illiterate. But the urban sector is not uniformly prosperous: although half the purchasing power of the country is in Caracas, which in 1955 had 1 million inhabitants out of a total population of 5.8 million, there is also some urban unemployment.

Great emphasis is laid on the effects of the push factors in a recent report² on the causes and effects of the rural exodus based on inquiries carried out in the poor quarters of Caracas and the villages of the Andean region.³ Its conclusions summarise the main causes and effects of the movement away from the land. The causes are listed as follows:

(a) The few opportunities for employment in rural areas. This is attributed, at least in part, to the primitive systems of agriculture now in use. If better and more scientific methods were practised, there would be more need for specialised workers, such as agronomists, entomologists, tractor drivers, veterinarians, etc., and there would be wider employment opportunities in the rural areas than there are at present. If agricultural production were concentrated to a greater extent on the production of processed or semi-processed products, instead of on raw materials and basic products, as is at present the case in the majority of the rural areas, the opportunities of employment in the country would be as good as those in the city.

(b) The unjust distribution of land. The peasants who have no land of their own always find themselves in a worse economic situation than those who own their own plot, however small it may be. The first, and often the only, rural workers to abandon the country looking for other horizons are the non-owners, because they have nothing to tie them to their birthplace or to lose when they abandon it. The land gives the peasant a sense of security and stability.

¹ W. W. Rostow, loc. cit.
³ The latter are rural problem areas, as a result of population congestion; they are not typical of other regions where there is wide scope for agricultural development.
The lack of material welfare services: water, light, roads, markets, credits, etc. The lack of these services not only makes life difficult, but also may even endanger it. So long as the peasant is unaware of the existence and merits of these services he is more or less resigned to his living conditions; but when he learns that in other places he can enjoy these services and still more when he has had the opportunity of using them, he feels their absence and will eventually look for the opportunity of establishing himself where these services exist.

The lack of educational, cultural and moral welfare services: schools, libraries, theatres, sports facilities, churches, etc. It is sometimes believed that the lack of services of this type is felt only by people of a certain cultural level. The results of the investigation, however, showed this view to be untrue. Even illiterate and ignorant peasants understand the value of education and deplore the lack of existence of schools, or the lack of conveniently located and organised schools where they can send their sons. If some of these services were not mentioned by the peasants, it is because they are ignorant, not so much of the benefits of such services as of their very existence.

The lack of social welfare services: hospitals, asylums, nursery schools, savings banks, retirement pensions, etc. The absence of all these services in the rural zones encourages and even directly causes the rural exodus. It is also a major obstacle to rural settlement, hindering or prohibiting the establishment of rural industries.

The principal effects of the movement out of agriculture, the report states, are the following:

The shortage of agricultural manpower. This has resulted in the low level of agricultural production which eventually forced the country to import large quantities of food. Not until after the Second World War did agriculture in Venezuela receive strong official encouragement. For this purpose the Committee for National Development was created, and was later transformed into the Venezuelan Corporation for Development. In recent years the agricultural settlements established by the Agrarian Institute for foreign and national settlers began to produce considerable quantities of corn, potatoes, rice, beans, onions, etc.

The congestion of population in the cities. This creates grave problems for the national and municipal governments. The supply of services providing water, lighting, transport, schools, hospitals, etc., are insufficient to provide for the new inhabitants of the city. In Venezuela and particularly in Caracas the Workers’ Bank is making a
great effort to solve the housing problem created by peasant migration into the city.

The above conclusions relate only to the data collected through interviews carried out in Caracas and in the Andes. It is for this reason that no mention is made of other causes and effects of the rural exodus, which similar investigations carried out in other regions of Venezuela or in other countries in Latin America would undoubtedly have disclosed.¹

It would therefore appear that migration out of agriculture can relieve rural poverty, and is a condition of improvement in rural conditions. But the many factors adversely affecting rural living standards are not likely to be remedied unless more capital investment is directed into agriculture and rural capital construction, and unless the agrarian structure is reformed and the welfare of the rural community better looked after.

Iraq

Iraq, like Venezuela, is an oil economy with high rates of investment and urbanisation. It is, however, at a much earlier stage of development in that the expansion of the oil industry is much more recent; the rapid increase in production which now dominates the economy did not begin until after the Second World War. The policy of ploughing back a proportion of the oil royalties was introduced in 1951, and since 1954-55 large sums have been expended on capital construction, mainly large water control projects. Before this recent expansion, Iraq was primarily an agricultural country, exporting wheat and barley. Agriculture is still the main occupation, but its share in gross national product in 1956 was only 24 per cent, while oil production, which employs only small numbers, accounted for 27 per cent.²

Although Iraq is sparsely cultivated in relation to its cultivable land area, the conditions of agricultural production are extremely adverse owing to the absence of water control. Agriculture suffers both from excess of water, through periodic floods which destroy crops, and shortage of water in the irrigation zone, which prevents double cropping. In the northern half of the country dry farming predominates, while in the south all cultivation is on irrigated land, the water being supplied by canals or pumps. Both in dry and irrigated cultivation, yields are extremely low—indeed, among the lowest in the world. Great fluctua-

tions in output are caused by flood damage in the irrigated zone and by variations in rainfall in the north. Moreover, salination in the irrigated area destroys soil fertility, owing to lack of drainage, and requires shifting cultivation. Farming remains extensive, with alternate years of fallow even in the irrigated zone, except in certain areas served by two barrages. Thus flood control and water conservation measures in the Tigris and Euphrates valleys constitute an essential condition for the improvement of farm output and incomes. Two large projects completed in 1956, the Wadi Tharthar flood control scheme and the Habbaniyah reservoir, represent major steps in this direction.

The land system results largely from the settlement of a tribal and semi-nomadic population. Much of the present farming area has been brought under cultivation in this way over the last 40 years. In the course of this process legal title to ownership has been acquired by tribal sheikhs, while the customary rights of the cultivating tribesmen have been disregarded under the system of registration of title. Land is preponderantly held in large properties and farmed through the agents of the landowner. With the exception of some regions where small ownership predominates, the cultivators are mainly sharecroppers who deliver a large proportion of the crops to the landowner. Efforts to reform this system through legislation aimed at controlling share rents and securing a higher proportion of the crop for the cultivator have in the past been largely ineffective. Several land settlement projects granting ownership to cultivators after a period of cultivation were introduced between 1950 and 1958 with some success, but on a scale too small to affect the farm population in general.

Thus the push factors in migration are extremely strong. The earnings of cultivators are at a subsistence level by reason of the low yields and the high proportion of the crop claimed as share-rent by the landowner. Health conditions are extremely bad: the majority of the fellaheen suffer from diseases of acute malnutrition.

The pull factors are also strong. Although the oil industry itself employs only small numbers, the volume of employment created by new public expenditure is large. Most of the new employment is on construction, water control projects, roads and urban building. Employment in new industries is less important, since public expenditure has neglected this sector.

The movement of labour out of agriculture in recent years has proceeded very rapidly, chiefly into the towns of Baghdad, Basra and Kirkuk; there is also considerable emigration from the regions of extreme poverty in southern Iraq into urban employment in the oil economy of neighbouring Kuwait.
On the basis of the statistical material at present available (the results of the 1957 census have not yet been published in full) it is not possible to gauge the extent of occupational change. The high rate of urbanisation can, however, be shown by comparison of the total rural and urban population recorded by the censuses of 1947 and 1957 (table 44).

**TABLE 44. IRAQ: RURAL AND URBAN POPULATION, 1947 AND 1957 (Thousands)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Rural population</th>
<th>Urban population</th>
<th>Total population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Absolute numbers</td>
<td>Percentage of total</td>
<td>Absolute numbers</td>
</tr>
<tr>
<td>1947</td>
<td>3,196</td>
<td>66.4</td>
<td>1,620</td>
</tr>
<tr>
<td>1957</td>
<td>4,100</td>
<td>62.7</td>
<td>2,438</td>
</tr>
</tbody>
</table>

Source: population censuses.

The rate of increase of the total population during this period was extremely high, amounting to 3.1 per cent. annually, while the rural population increased at the annual rate of 2.6 per cent. as compared with 4.2 per cent. for the urban population. While total population has increased by 36 per cent., the urban population has increased by 50 per cent. during the ten-year period. However, the movement out of agriculture is undoubtedly faster than the movement into the cities, since much new employment, particularly on construction projects and in road building, is located in rural areas.

Movement to the towns represents an immediate gain in real income for the migrants. As a result of the increased demand for labour, wages have risen considerably in recent years. Skilled workers in 1956/57 could earn 1.50 dinars\(^1\) per day; semi-skilled workers employed by firms under contract to the Development Board earned 500 fils.\(^2\) The legal daily minimum of 250 fils is generally exceeded, and the prevailing level is probably twice as high.\(^3\) Data on agricultural incomes are not available, but the unskilled urban wage rate certainly greatly exceeds average earnings in agriculture. Gains in social status are also significant, by comparison with the socially debased position of the fellaheen.

Nevertheless, urban housing conditions for migrants are extremely unsatisfactory, since development expenditure has made scant provision for working-class housing and sewage systems. The overcrowded mud

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\(^1\) 1 dinar = 2.80 U.S. dollars.

\(^2\) 1 dinar = 1,000 fils.

\(^3\) *Economic Developments in the Middle East*, op. cit., p. 34.
hut quarters which the migrants occupy in Baghdad, sometimes with their animals, are without sanitation or water supply. Rates of infant mortality are extremely high.

The increased demand for labour since 1955 absorbed all urban unemployed workers, and has contributed to the reduction of agricultural unemployment. However, owing to highly seasonal labour requirements, there is much underemployment in agriculture. As to the effects of outward migration on agricultural production, there is no evidence that landowners have tried to retain cultivators by increasing their share in the crops or otherwise improving their status.

Although migration brings undoubted benefits to the migrants and does not reduce wages in the urban centres, the continuance of the push factors which cause migration is certainly not in the long-term interest of the economy as a whole. Even the gains in income may not be permanent, since employment in the major construction works will terminate on their completion. The most serious aspect of the disparity between agriculture and other occupations lies in the lack of balance between the large sums expended on capital construction for agriculture and expenditure on agriculture itself and its labour force. Public capital investment is to a great extent concentrated in irrigation works which will result, when completed, in a great expansion of agriculture's productive capacity. The flood control and irrigation schemes should result in a considerable extension of the cultivated land areas, and enable double cropping both on new land and the land already cultivated. But this investment is for the long term: little capital is invested in the improvement of agricultural methods, or in research, or in vocational training. Thus the immediate occupational shift caused by the increased demand for unskilled labour may be in conflict with the long-term manpower requirements which this investment will eventually create. To cultivate and crop the land a skilled labour force, either of farmers or of skilled workers, will be needed.

Balanced development in this case calls for energetic measures to raise the income level and living standards of the labour force in agriculture, and to improve its efficiency. This would require increased investment in agriculture itself, aimed in particular at the encouragement of more intensive methods, and greater investment in human resources in the form of rural housing, education and vocational training. It would also involve a redistribution of income in favour of the cultivators. New land reform legislation introduced since the revolution of 1958 should eventually bring about this essential change.

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Conclusions

Conclusions as to the effects of migration in conditions of the kind described above must necessarily remain tentative, since insufficient data are available. The problems which emerge are sharply contrasted with those which characterise the group of countries considered in the preceding chapter in that more capital is available for agricultural development. In two of the countries considered—Brazil and Iraq—the scope for agricultural development is great in that new land areas are being brought under cultivation, and improvement in methods of cultivation could undoubtedly increase yields and raise labour productivity and incomes in agriculture. Whether agricultural development will require more or less manpower depends on the types of farming to be developed; but it is a safe assumption that more skilled labour will be required, whatever the type of farming.

From the standpoint of the migrants themselves, the evidence of Venezuela and Iraq suggests that the gains of movement are considerable. Even though urban living conditions are unsatisfactory, the increase in money income is large enough to ensure a significant increase in consumption. For Brazil the evidence rather is less conclusive, and the harmful results of urbanisation would seem to outweigh the benefits.

So far as agricultural production is concerned, the movement of labour should tend to bring about a more economic use of manpower and a substitution of capital for low-paid labour. Where labour is congested in poor areas, as in Venezuela, the reduction in the agricultural labour force should be beneficial, in allowing the remaining workers to cultivate more land. In Iraq, where land is plentiful, shortage of labour may stimulate mechanisation.

But the basic problem arises out of the fact that development is one-sided and that agricultural production does not keep pace in efficiency with other sectors. More investment in agriculture, higher productivity and higher living standards for sharecroppers and hired workers would not necessarily tend to check migration, but would ensure that it did not exert a downward pressure on the urban living standard and result in an excessive growth of the services sector. Where investment concentrates on long-term expansion of agricultural production through capital construction projects, as in Iraq, efforts to channel investment into more immediately productive fields might increase the efficiency of the labour force in agriculture and provide an easier transition than will occur if the completion of the development schemes brings
a reduction in employment. Rural-urban migration in these conditions does not add to the numbers of the urban unemployed and underemployed living in destitution, as it does in Asian cities, since the demand for labour is increasing and wages are rising. There is, however, a danger that a very rapid influx of labour will reduce urban wages and efficiency in industry. This danger is considered to exist in Latin America as a whole:

... Alongside modern-type industrialisation, comprising well-equipped medium and large-scale plants, the efficiency of which is far above the average, there springs up in the urban centres a vast mushroom growth of small, inefficient workshops which can operate at a profit owing to the ample supply of cheap labour, provided by the steady immigration of rural population into the towns and by the already existing local stock of marginal population.¹

Attention has also been drawn to the danger of excessive growth in the services sector:

... With the dwindling ratio of rural-to-urban population, however, and the generally unsatisfactory productivity of agriculture and low purchasing power of the agricultural population and other rural dwellers, the high proportion of the urban population depending on services can be justified neither by the volume of total goods produced, which has to be distributed, nor by the needs of the countryside, and becomes excessive.²

While generalisation is obviously difficult, it seems reasonable to conclude that the movement of labour out of agriculture will not of itself bring about the increase in investment which higher production in agriculture requires. The natural obstacles to increasing productivity in the countries concerned are considerable, and the substitution of machinery for labour is not in itself a sufficient remedy.

At present Brazilian agriculture relies mainly on private capital; Iraq has invested public funds in agricultural capacity (i.e. irrigation works) but not in agricultural production. As for Venezuela, neither private nor public capital is invested in agriculture. There is therefore great need for a co-ordinated investment policy for agriculture in all of these countries.

ALTERNATING MOVEMENT

In several rapidly developing countries movement out of labour takes the form of irregular periodic shifts between industrial and agricultural employment. These must be distinguished from seasonal changes of employment by workers who are mainly occupied in agriculture and find other employment during the off season. In the case of alternating movements, the periods of employment are not determined

² Ibid., p. 40.
by the seasonality of agricultural labour requirements, but by the need for industrial employment as a main source of income. Return to the village, however, takes place at intervals because, while the village cannot provide a livelihood, the city cannot provide a home.

This type of movement may represent a transitional stage leading eventually to permanent industrial employment; but in certain conditions the oscillation can continue indefinitely. Permanent urban settlement of workers’ families may be discouraged or even prohibited by official policy. Village, community or tribal attachment, lack of housing in the cities, shortage of food, ownership of a small farm, insecurity of industrial employment or dislike of factory discipline may all be motives for return. Industry pays wages which are far higher than earnings in agricultural employment, but the rural community must meet the social costs of industrialisation—e.g., by providing a degree of security against unemployment, old age and illness, and by supporting workers’ families during their absence—although its economic resources are inadequate.

Alternating movement is now a feature of the employment market in many countries, but at present little detailed information is available concerning it. The three areas described below—trans-Saharan Africa, Turkey and Yugoslavia—have been selected because in each case documentary material is available. On Africa a wealth of data has been published over a period of years, while for Turkey and Yugoslavia several recent investigations throw valuable light on the existing situation. In conditions of development, government policy and social institutions, these three economies are contrasted to an extent which may seem to preclude generalisation. Yet migration of the same type occurs in each of them (though to different degrees), in spite of the diversity of background; comparison of the causes and effects of movement between agriculture and urban occupations shows that in each case the conflict between community attachment and economic need is responsible for the unbalanced employment picture.

Africa South of the Sahara

Large-scale periodic migration between subsistence agriculture and industrial employment is a chronic condition of the employment market in African countries south of the Sahara. It is certainly not a transient phase in development, for in south Africa it has been continuing for nearly three-quarters of a century and its volume is on the increase. In the Union of South Africa and in the copper belts of the former Belgian Congo and Northern Rhodesia migrant workers from inside
and outside the territory constitute the main element in the industrial labour force. In some territories the proportion of adult males constantly away from their home territory is very high: in Basutoland it amounts to 50 to 60 per cent., and in Nyasaland to 40 per cent.\(^1\) In the Union of South Africa, while the absent males form about 12 per cent. of the total population of the Bantu areas, they represent more than 40 per cent. of the males between 15 and 64 years of age.\(^2\) Periods of absence range from one to several years.

These movements have been the subject of numerous investigations and surveys by international agencies\(^3\) and other authorities, which shed light on their causes and effects and show how they contrast with the movement of labour out of agriculture in other countries.

*Causes and Effects of Alternating Movement.*

Both the push and the pull factors determining movement are exceedingly strong. Native agriculture can barely provide subsistence because the fertility of the soil is decreasing, while industrial employment can offer a cash income equivalent to three or four times the cash value of the crops which can be produced by the family. However, actual earnings in industry may not be larger than the farm income earned by the family. In 1950 the annual family income of farming families in the Bantu areas in the Union of South Africa was estimated at £43, of which £22 came from farming and £21 from outside work.\(^4\)

Although the conditions which give rise to movement out of agriculture into industrial employment are economic, and represent in an extreme degree the same factors which operate to a greater or lesser extent in all rapidly developing countries with a poor and primitive agriculture, the specific character of the movement—i.e., the fact that it is periodical—is determined by political and social factors.\(^5\) Several of the major mining enterprises do not allow workers to live outside the

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\(^4\) *Summary of the Report of the Commission for the Socio-Economic Development of the Bantu Areas within the Union of South Africa*, op. cit., p. 35.

compounds, so that permanent settlement is prohibited. In some territories measures restricting urban settlement are in force. Stabilisation of the labour force can be achieved where employers encourage it as, for example, in the copper mines of the former Belgian Congo and Northern Rhodesia, where arrangements made by the companies now enable a considerable proportion of the employees to settle down with their families at their place of employment.¹

The effects of migratory labour are harmful from the standpoint of industrial and agricultural efficiency and from that of social welfare. The main effect on industry is the high rate of labour turnover, ranging from 30 to 100 per cent. or more annually.² In the Cape peninsula, a study covering the years 1949-54 showed that over 60 per cent. of the employers surveyed, employing 60 per cent. of the labour force, had an annual turnover of 100 per cent.³ Owing to the short period spent at work and indiscriminate interchange between different types of employment, the productivity of industrial labour remains very low. A recent study carried out in Durban ⁴ shows that the productivity of unselected African migrant labour is only 29 per cent. of that of normal white workers in continuous employment, but that the productivity of African workers can be raised to 85 per cent. if they are selected and in continuous employment. Thus the migratory nature of labour is the most important cause of low productivity. It has further been pointed out that—

... the migratory system is economically inefficient, not merely because of the enormous cost of transporting the workers to and fro, which represents a charge against the net product of labour which must necessarily depress wages, but also because it condemns the workers in perpetuity to undifferentiated unskilled labour.⁵

The wastage of manpower can also be gauged from the fact that Bantu workers in the Union of South Africa spend only 62 per cent. of their working lives in active employment, and 38 per cent. in unpaid work or inactivity. The average migrant labourer remains in the employment market as a worker for 22.6 years; he withdraws or "retires" at

the age of 41, and spends 20 years of his expected life (at the time of entering the employment market) separated from that market.¹

The effects on health and welfare are equally bad:

... A computation of the number of man-years spent by Africans in travelling to and fro would reveal deplorable waste of manpower in a desperately poor continent, but the most serious and tragic consequences are not the economic but the psychological and spiritual consequences of being perpetually on the move. Uprootedness and the lack of a feeling of belonging anywhere is the greatest curse of Africa today, and is the fundamental background to crime in Johannesburg, strikes on the Copperbelt, and to Mau Mau. The cost of a temporary relief from poverty is the separation of husbands from wives and fathers from children for the greater part of their lives, and in this way migrant labour destroys the foundations of the traditional tribal society while at the same time it inhibits the growth of full new community life in the urban areas.²

From the standpoint of agricultural production, a permanent movement of labour into industrial occupations would have beneficial effects, since the reduction of the farm population would remove the compulsion to over-cultivate through shifting cultivation and permit the introduction of better farming methods in settled agriculture. Economic growth is creating a demand for agricultural products, and should therefore favour increased production and better methods of farming.

Migration, however, has cumulative effects which prevent it from benefiting the rural community in this way. In some territories, savings acquired by industrial earnings are invested in agriculture, but this is not the case where movements involve a large proportion of the adult men and are undertaken, not with a view to amassing capital, but in order to meet the recurrent monetary obligations and consumption needs of the household. The absence of the men means that the women undertake most of the cultivation and that there is insufficient labour for necessary improvements such as contouring, strip-cropping and weed-bunding. Crop areas will be reduced while yields decline, so that the family is ill-fed and cannot improve its farming. "It is not the Bantu man, but the Bantu woman who finds life hard in the Reserves today."³

Policy Considerations.

The essence of the problem of alternating movement between primitive agriculture and industrial employment is that its effects are cumulative. The agricultural base grows progressively weaker, while the

² D. H. HOUGHTON, op. cit., p. 46.
³ Summary of the Report..., op. cit., p. 73.
increasing number of persons seeking industrial employment depresses industrial wages and prevents an increase in productivity. Measures to deal with the problem must necessarily be comprehensive and should aim at improving the situation at both ends by improving farming methods, conserving soil fertility, and introducing new forms of tenure, while at the same time raising industrial wages and improving urban living conditions.

Full discussion of the policies applied in all the territories concerned lies beyond the scope of this survey. However, as an illustration of the amplitude of the measures considered necessary in a fundamental approach to the problem, reference may be made to the report of the Commission for the Socio-Economic Development of the Bantu Areas within the Union of South Africa (known as the Tomlinson Commission). The recommendations made by the Commission would, if implemented, tend to stabilise the labour force, and may be considered from that standpoint.

The report shows that the role of migrant labour in the economy is large and growing. The total population of the Union, according to the census of 1951, amounted to 12.64 million, of which 2.6 million (or 20.9 per cent.) were Europeans and 8.5 million (or 67.5 per cent.) were Bantu. Of the total Bantu population, 3.6 million were domiciled in the Bantu areas, excluding 569,000 absent temporarily (as compared with a total domiciled population of 3.4 million, including 447,000 absentees, in 1936), and 2.6 million were employed in other rural areas, in particular on European farms. The total urban population in 1951 was 5,374,000, of which 2.3 million were Bantu, including 500,000 migrant workers from within the Union and 300,000 migrant workers from other parts of Africa. The urban Bantu population is growing, mainly through the influx of labour from the non-Bantu rural areas and through the natural increase of the town population. If urbanisation continues at the rate of 1946-51, and the capacity of absorption of the Bantu areas is not considerably increased, the number of Bantu in towns outside the Bantu areas may well be over 15 million. The main theme of the Commission’s report is that this prospect necessitates a choice between the alternative of complete integration of the European and the Bantu populations, or their separate development. For political reasons the Commission favoured the latter course.

The report accordingly recommends large-scale development of the Bantu regions as a fully diversified economy, including agriculture, industry and services. The first essential is considered to be the establishment

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1 *Summary of the Report...*, op. cit., p. 29.
of a Bantu farming class settled on adequate farm units with individual tenure of land. Mining and manufacturing industries should be established in and near the Bantu areas, and European industrialists should be admitted into the areas to establish industries to absorb those who cannot be employed in agriculture. Railway improvement should be undertaken, and a full range of social services should be provided. The total cost of the programme for the first ten years is estimated at £104 million, of which £33 million should be devoted to agriculture, including £27 million for soil reclamation.¹

The Commission's proposals in regard to agricultural development have been accepted by the Union Government, as also were the proposals for the establishment of industries near the Bantu areas. The proposal to abolish tribal tenure and substitute individual tenure was not accepted, nor was it considered feasible to admit European industrialists to the Bantu areas to establish industries, or to encourage mining enterprises in the areas through the establishment of a fully equipped Mining Section in the Department of Native Affairs. The Government agreed that it was essential that large sums should be expended on the development of the Bantu areas, but did not deem it advisable to fix the amounts needed in order to implement the various projects recommended by the Commission.²

Turkey

Migration from subsistence farming into temporary urban employment or seasonal work in commercial agriculture is a permanent feature of the Turkish employment market. The principal sources of temporary migrant labour are the Black Sea coastal strip and the high-lying settlements of the arid Anatolian plateau and eastern highlands. These regions have long been unable to support their population, and as it grows the volume of temporary migration increases. Mobility has been much stimulated in the last ten years by the improvement of roads and the penetration of truck and bus transport into remoter regions.

Although Turkey embarked on a policy of industrialisation in the inter-war years, the labour force employed in manufacturing and mining is still relatively small. Between 70 and 80 per cent. of the population is still occupied in agriculture, and the agricultural labour force continues to increase, even though its proportion to the total labour force is decline-

¹ Annual expenditure of about £10 million would represent a sum of about £1 per head of the Bantu population.
The 1955 census gave a total population of 24,122,000, and a total economically active population over 15 years of age of 11,903,000, of whom 9,636,000, or 81 per cent., were in agricultural occupations (as compared with 8,971,000, or 83.7 per cent., in 1950). Persons in industrial occupations in 1955 totalled 1,126,000, or 9.5 per cent. of the total economically active population over 15 years of age (as compared with 893,000, or 8.3 per cent., in 1950). In 1958 about 1 million workers were employed in industry and 1 million in services. The population is growing fast, at an annual rate of 2.5 per cent.

The volume of temporary migration is large in relation to the volume of non-agricultural employment. An estimate by the Employment Service puts the total number of male workers seeking employment away from their homes during the year 1957/58 at 740,000, or 17 per cent. of the 4,581,000 male workers occupied in agriculture in 1955. During peak periods the total may be as high as 1 million. Those who obtain work in the city stay away from the village for three to nine months; only 10 per cent. stay away for more than one year at a time.

**Major Migration Currents.**

There are five major streams of temporary migration: to Istanbul from other parts of the country, and in particular from the Black Sea coast by sea; to the Aegean coastal region (mostly from Anatolia) for the cotton, fig and tobacco harvests; within the Mediterranean coastal region (Adana and Hatay) for the cotton and citrus harvests; to Ankara from surrounding parts of Anatolia, chiefly for employment in building and small-scale commercial activities; and to the Zonguldak coal mines from the surrounding regions.

Istanbul attracts labour from all parts of Turkey because it is the most important centre and a major commercial crossroads. One of the main streams of immigrants originates in the eastern Black Sea coast, between Samsun and Turkey’s eastern frontier, a region isolated from its hinterland by the Pontus mountains, and with practically no outlet except westwards by sea from Samsun. The main crops—maize, hazel nuts and tobacco—have short seasonal labour requirements, and there is insufficient land to support the agricultural population, except on the tea plantations in the region of Rize. According to a recent I.L.O. survey, peasant farmers spend from six to nine months on an average in the city and return to the village during periods of peak demand for labour. Thirty-six per cent. of the civilian labour force in the villages

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surveyed were forced to take employment outside the village for part of the year, while a further 24 per cent. were reported as being interested in outside employment if opportunities were available. Thus there is a permanent surplus of potentially mobile labour in addition to those who actually find temporary employment.

The second type of temporary movement—comprising the second and third major migration streams enumerated above—is from subsistence agriculture into seasonal employment in commercial agriculture. It gives rise to a large influx of labour into the fertile regions of intensive farming, as is shown by the high proportion of temporary workers among the population of these regions. In the Mediterranean coastal districts, where shifts occur seasonally within the region, the proportion in 1952 amounted to 109 per cent., in the Aegean to 34 per cent. and in the Marmara region to 30 per cent.

The fourth stream of migration, from surrounding rural districts into employment in Ankara, exhibits an interesting feature of temporary migration movements—the fact that families share jobs among their members, father and son alternating in the same job. This suggests that urban employment is too arduous or too irksome for rural people accustomed to a different working rhythm. At the same time, this form of temporary migration represents an opportunity for maximising family incomes.

Finally, the alternating movement to and from employment in the state coal mines points to the lack of incentives offered by permanent employment in industry. In Zonguldak, the only hard coal region in Turkey, the mines are operated by large modern enterprises, state-owned and operated, and employing altogether about 30,000 workers. Under the present system workers are divided into teams, each employed in the mines for a short period, after which they are replaced by another team from the same district. The fact that such arrangements are used in a major modern enterprise—where permanent regular employment would seem more likely to improve labour productivity—shows how ingrained is the habit of periodic return among the employees, who are prepared to share cash benefits among their neighbours in order to avoid permanent employment. In this case temporary migration spreads the gains and disadvantages of industrial employment among the village community.

Effects of Temporary Migration.

In discussing the effects of temporary migration, a distinction must be drawn between the advantages it offers to the migrants and its general economic disadvantages. For the migrant worker the obvious benefit
is the cash income, most of which can be saved by living in wretched conditions in the city and then brought back to the village. The search for work is speculative, and successful return enhances prestige. Often, too, migration is the village's only link with the world outside. Finally, permanent transfer of the worker to the city with his family would add to the cost of living, since the village subsistence holding would have to be abandoned.

From the general economic standpoint, however, the results are deleterious. The employment market is disorganised, and no guidance is provided for the workers who flow into the towns after the harvest. So long as the influx continues it will be impossible to raise or stabilise wages in industry or services. The rate of labour turnover keeps productivity low, although low labour costs may compensate for low efficiency. Should manufacturing industry expand, management would need to give more attention to this problem. Service occupations are overcrowded, since the city offers migrants the prospect of setting up as small traders and craftsmen, street sellers, peddlers and porters; such speculative dealings are more attractive than industrial employment. Most migrants obtain temporary work of some kind; only about 5 to 10 per cent. return home disappointed. But earnings are irregular and insufficient to support a family.

Urban housing and social conditions are the most serious aspects of temporary migration. The effect on social conditions in Istanbul has been the subject of a special I.L.O. survey. Many immigrants live in huts built overnight, without water or sanitation. Single men reside in mass shelters in old houses. Although the social problems arising from overcrowding are not at present beyond control, health conditions are growing worse. There is a danger of an increase in juvenile delinquency. Previously Istanbul was adequately supplied with schools and homes for apprentices and young workers, but these are now overwhelmed by the population influx. Municipal authorities consider that unless the influx is checked it will present the city with an insuperable overcrowding and unemployment problem, and that social and public services, including sanitation, will prove inadequate.

Extreme social stress, however, is mitigated because both families and single migrants retain a close contact with the village of their origin and keep to the habits and mentalities of their rural background.

1 According to the results of an inquiry carried out in 1948, 24 per cent. of the workers in the 1,648 establishments surveyed had been employed for not more than six months, and 43 per cent. for not more than a year. (I.L.O.: Labour Problems in Turkey, Studies and Reports, New Series, No. 25 (Geneva, 1950), p. 216.)

Migrants from European Turkey and the Marmara Sea area are already urbanised when they arrive and are better adjusted to city life. Those coming from Anatolia and the Black Sea find it difficult to change their attitudes and tend to return to the village at the earliest opportunity.

So far as the effects on agriculture are concerned, temporary migration tends to perpetuate underemployment and brings no relief for the labour surplus in the poorest regions, although the additional income brings some improvement in village living conditions. But migration fails to benefit the very poorest, who cannot mobilise the capital needed to cover the cost of the journey (which, for example, from the eastern Black Sea coast to Istanbul, ranges from £100 to £200) and the initial cost of living in the city. The seasonal labour surplus in agriculture is absorbed, but the tendency to subdivide holdings is not checked, nor are the sums earned in the city invested in the farm.

It may therefore be said that, from the standpoint of the city, and in relation to industrial wages and employment, housing, sanitation and schools, the influx of labour is far too large, while from the agricultural standpoint, in relation to land and water shortage, the size of holdings and the improvement of farming, the outgoing movement is far too small and ensures none of the benefits that would result from permanent migration.

The root of the problem lies in the excess of manpower in relation to industrial requirements and the underemployment of the village population in the poorest agricultural regions. But even a considerable expansion in the numbers now employed in industry would not suffice to absorb the present volume of temporary migration and the growth of the population in agriculture. It is tempting to look for a remedy in the development of agriculture, the neglected sector in so many rapidly developing economies. In Turkey it is precisely in agriculture that rapid development has occurred since the Second World War, thanks to large-scale mechanisation which has greatly extended the cultivated area; but since technical progress has been concentrated in labour-saving methods, the rapid growth of farm output has not been accompanied by a proportionate increase in employment.

Government policy has energetically promoted agricultural development. Agricultural prices have been maintained at high levels and exports have been subsidised. Between 1950 and 1957 government expenditure on agriculture (including both current spending and investment) increased fivefold; in 1950 agriculture's share of development

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1 Turkish pounds; 1 pound=7.74 U.S. cents.
expenditure was 28 per cent. while in 1957 it was 40 per cent.¹ Public expenditure on transport and communications increased in almost the same proportions and was slightly larger than expenditure on agriculture, while expenditure on industry, mining and communications remained practically stationary. Between 1950 and 1956 public expenditure on irrigation and flood control alone amounted to £1,282,000.² Ample provision for credit to agriculture has been made by the Agricultural Bank.³ In addition to these advantages, farmers were until recently exempted from income taxation.

The results of this policy have been a great expansion in the area cultivated and in farm production. As compared with the 1934-38 average, the area of land under crops and trees in 1955 had increased by 75 per cent. and the volume of production by 71 per cent.: the net value of output had almost doubled.⁴ Most of this increase took place during the early 1950s, when the area under main crops increased by about 40 per cent. with a 60 per cent. increase in production. The provision of capital has been the chief incentive to the expansion of mechanised grain cultivation, mainly in pasture regions sparsely populated and hitherto used for grazing, and to some extent also in regions already under cultivation. The number of tractors in use rose from 10,000 in 1950 to 42,000 in 1957.

There is some difference of opinion as to whether rural living standards have risen as a result of this rapid expansion. Some commodities which were formerly seen only in the towns have in recent years come within the reach of the peasant. On the other hand—

. . . although a small minority of the agricultural population has benefited from the rise in production achieved in recent years, the peasants' standard of living has not greatly changed, and in some instances has even declined, so that their position in relation to the other population groups has deteriorated . . . . The income of many small farms is only at subsistence level; productivity is so low that the income represents a very inadequate return for the work done. There are very large income disparities even within the agricultural sector: this is due in part to purely agricultural reasons.⁵

Of these reasons, the distribution of land ownership is the most important. Although a fairly large proportion of the farm area consists of smallholdings, the greater part of the good land is concentrated in

³ Ibid., p. 15.
⁴ The Development of Manufacturing Industry in Egypt, Israel and Turkey, op. cit., p. 16.
commercial farms; peasant holdings are mostly situated on poorer soils and mountain slopes. Agricultural policy has benefited the large owners, through the provision of credit which has enabled them to purchase machinery, while smaller producers have gained little.

The rapid increase in production has been achieved by over-extension of the area under cultivation, often to land which, in the opinion of experts, ought not to have been brought under the plough. The disk harrows and share ploughs imported for tractor cultivation are now recognised as unsuitable for dry farming in dustbowl areas and have long been abandoned in their countries of origin (the United States and Canada) in favour of implements that burrow but do not turn the soil, such as the traditional Turkish plough. Although the area of pasture land has been much reduced, the number of livestock has increased, and grazing animals are underfed owing to shortage of fodder. The result is over-grazing and destruction of forests by the animals. In consequence of all these factors, wind and water erosion has reached alarming proportions.¹

Thus maldistribution of capital and labour in relation to land resources and one-sided technical progress have led to misuse of land as well as wastage of labour. Agricultural modernisation has largely by-passed the poorest regions and is destroying soil fertility in the newly cultivated land. Moreover, mechanisation may have to some extent displaced labour in the newly cultivated areas, where large landowners have taken possession of village communal grazing lands for tractor farming. Of the new area brought under cultivation, 62 per cent. is estimated to have been grazing or forest land, and its appropriation for commercial farming not only displaces herdsmen but probably also undermines the position of peasant farmers who use the communal grazing land as an adjunct to farming on their smallholdings. How important these effects are in relation to migration is not known.

**Policy Considerations.**

To attempt to dam the currents of migration at their source by improvement of farming conditions in the regions from which most of the migrants come is a policy with no prospect of success. The eastern Anatolian plateau is poor in natural resources, above all in water; the dry climate prevents intensification and diversification of cropping or expansion of the cultivated area. According to a recent F.A.O. survey, some resettlement in more favoured areas is essential.² In the Black Sea

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coastal region government policy has successfully encouraged tea
cultivation, and the outlook for intensification is more hopeful, but
since land is short in relation to population, the prospects of substantial
improvement in employment and living standards are not great. Even
with better cropping, the population surplus resulting from natural
demographic increase will have to seek outside employment.

The urgent need, therefore, is to channel the stream in order to
reduce the pressure on Istanbul and other cities, and improve the con-
ditions of movement by reducing the wastage of manpower involved in
long journeys to unskilled temporary jobs. Long-term basic measures
designed to stabilise employment would necessarily involve action both
in industry and agriculture. Regional industrial decentralisation, through
the establishment of new factories in smaller towns, could help to reduce
the influx into the larger centres. There are good prospects for developing
local resources, e.g. through timber processing and timber using
industries in the Black Sea coastal region, and also through the expansion
of agricultural and food processing industries.

In agriculture an indispensable aid to better land use would appear
to be a survey of national water resources, which could form the basis
of a land and water conservation policy, and the development of irriga-
tion farming. The resettlement of farmers from the arid overpopulated
regions in more favourable locations in the irrigated area, with greater
opportunities of acceding to ownership, would be the chief way of
improving the conditions of employment in agriculture itself, as well as
a necessary step to combat overgrazing and soil erosion in the forest
regions. If this control could be established systematic afforestation
could increase off-season employment. Better land use could thus be
combined with fuller employment.

Yugoslavia

In Yugoslavia, as in other eastern European countries, there has
long been a surplus of labour in agriculture. While part of this surplus
was seasonal, some of it was permanent because, for historical reasons,
the rural population was not well distributed in relation to land resources.
The poor mountain regions, particularly Slovenia, parts of Croatia and
Bosnia, were the main sources of emigration to North America in the
early years of the present century, but in the inter-war years, when
this outlet was closed, the surplus in these regions grew. The land has
long been mainly peasant-owned, but a large proportion of the farms
are too small to provide full employment.

Since 1945 an energetic policy of industrialisation has to some extent
reduced pressure on the land. Owing to territorial changes, the extent
The reduction in the agricultural labour force cannot be known exactly. However, the total farm population in 1957 has been estimated at about 9 per cent. less than that living in the same area in 1931; it would seem, therefore, that industry and other non-agricultural employment not only absorbed the natural increase of the farm population but also took some workers off the land. This trend is illustrated by table 45, which also shows the decline in the ratio of the farm population to the total population between 1931 and 1957. As for the agricultural labour force, it was slightly larger in 1953 than in 1931 on a slightly larger territory; it may be assumed that some reduction had occurred by 1957.

Alternating migratory movement takes several forms. One is daily migration from villages to industrial centres. Official data on daily migration show that the areas of attraction of Belgrade and other expanding industrial centres are as wide as 100 kilometres. This type of movement includes farmers and members of their families. Another form is movement between temporary factory work and agriculture, which absorbs surplus labour in the off season. The combination of permanent employment in industry with a smallholding in the village is an old tradition, as also is seasonal work in seasonal industries, for example in sugar-beet factories. But the ease with which industrial employment can be found, coupled with the shortage of urban housing, now gives rise to periodic shifts in employment not related to seasonal labour demands. Workers are employed for two or three months in the towns and then return home, tired of factory discipline and having earned cash income sufficient for the moment.

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About half the industrial labour force (some 600,000 in mining and manufacturing in 1953) are estimated to be "peasant-industrial workers" of one kind or another.\textsuperscript{1} A large proportion of peasant income is derived from industrial and other non-agricultural work: a sample survey covering all regions of the Republic in 1953 showed that on private farms only 61 per cent. of the total cash income was derived from work on the holding, while 39 per cent. was derived from off-farm activities.\textsuperscript{2}

The rapid rate of urbanisation creates new problems in so far as the resources available are often insufficient to provide housing and social services for the rural influx, with the result that labour turnover is high and that there may be wastage of manpower. The really crucial problems of urbanisation, resulting from excessive concentration in large centres, are being met by a policy of decentralisation. Since 1945 one of the main objects of economic policy has been the industrialisation of the "underdeveloped" republics, and much progress has been made in this direction.

The absorption of the seasonal labour surplus into temporary non-farm employment is beneficial in so far as it enables peasants in the overpopulated mountain regions to earn a cash income in addition to the subsistence and security provided by their small farms. Most of the farm land in Yugoslavia is privately owned, and the majority of private farms are less than 5 hectares in size. The most recent land reform law, passed in 1953, enforced an acreage maximum of 10 hectares, allowing exceptions in special cases, so that almost all private farms are now smaller than 10 hectares. In the poorest regions, a 5-hectare holding is barely sufficient to support a family, but it ensures a supply of cheap food and possession of a home, and is thus to some extent a substitute for social insurance.

As in other countries with marked alternating movement, the effects are beneficial neither in industry, where high turnover prevents a rise in efficiency, nor in agriculture, which could benefit only if outward migration took a permanent form, and so allowed combination of the smallest units into farms of more adequate size. Nor is the removal of the seasonal surplus in itself conducive to more efficient production. Agricultural production since 1949 has stagnated below the pre-war level; the annual output of the two major grain crops averaged 6.1 million metric tons in 1954-58 as compared with an average of 7.2 million metric

\textsuperscript{1} C. Koštić: \textit{Seljaci industrijski radnici} (Belgrade, Rad Izdavacko Preduzece, 1955), pp. 166-177.

\textsuperscript{2} Paper on national income distribution in Yugoslavia read by R. Bičanić to a conference of the International Association for Research into Income and Wealth, held at Hindsgavl (Netherlands) in 1955.
tons in 1934-38. Although in the pre-war period Yugoslavia produced an annual export surplus of half-a-million tons of grain, in 1955-58 it was obliged to import grain at the annual rate of 1 million tons per year, owing to the shortfall in domestic production and the growth of the population. Since the use of foreign aid to cover current consumption needs restricts imports of industrial equipment and raw materials, and so checks the expansion of industry, planning policy now allocates more capital investment to agriculture. Such investment may tend to stabilise farm employment, although the regional disparities in land resources and living standards may still give rise to temporary outward migration from the poorer regions, particularly if such investment is concentrated mainly in mechanisation on the rich soils and in the relatively sparsely populated regions of the north-eastern plain.

Conclusions

From these three brief case studies it is clear that alternating movement has deleterious effects. High labour turnover prevents improvement of industrial efficiency, while the absence of male workers for long periods impedes improvement of agricultural methods and places a heavy burden on the women. Industrial skills cannot be acquired, and cash earnings are mainly expended on consumption rather than on investment in the farm. Wastage of manpower is an obstacle to social and economic development. But so long as agriculture provides a source of cheap labour, and the loss to industrial firms from high labour turnover can be offset by low wages, there will be little or no incentive for industry to try to eliminate the wastage by providing better conditions.

However, the prevalence of alternating movement is not simply the result of low levels of productivity and income in agriculture. In the three countries or areas considered, dissimilar as they are in terms of economic and social organisation, the root of the problem lies in the lack of connection between the society and the economy, shown by the existence of an underprivileged group or section in the agricultural community which cannot integrate itself into urban life, and therefore returns to the village because it offers some security and a degree of social integration, either through tribal tenure, as in trans-Saharan Africa, or through the ownership of a small farm, as in Turkey and Yugoslavia. Agriculture itself may be an underprivileged occupation in so far as methods remain primitive and incapable of adjustment because farm improvement is neglected, as in the case of Bantu agriculture in the Union of South Africa. It may also suffer from neglect in the allocation of public investment funds, as in Yugoslavia, and
peasants may cling to their farms because food is dear. But even when agricultural production is favoured by government policy, as in Turkey, its development may take the form of capital investment in labour-saving machinery, so that the expansion of output is achieved without expanding employment and thus fails to affect the peasants in the remote subsistence farming regions, who still constitute a "core of manpower erosion" even though commercial agriculture is prosperous.

Alternating movement will remain a chronic condition so long as economy and society cannot be integrated. The policy of increasing investment in agriculture in general, which appears desirable in all countries in process of rapid industrial development, may need to be supplemented by aid to the underprivileged groups through agricultural investment in the neglected regions (or by resettlement), decentralisation of industry, and improvement of urban housing and social conditions. Although measures to improve the organisation of the employment market may be useful, they are unlikely to stabilise the labour force effectively so long as the influences of money income and security counteract each other. Where the underprivileged group is large, as is likely to be the case where it consists of indigenous workers in a multi-racial society, policies to stabilise employment must necessarily aim at removing institutional underprivilege.
CHAPTER VII

ECONOMIC GROWTH AND OCCUPATIONAL BALANCE

THE CONTRAST BETWEEN ADVANCED AND LESS DEVELOPED COUNTRIES

From the foregoing survey of conditions in individual countries it is clear that movements of labour out of agriculture in the less developed countries differ greatly in character from those which have taken place in the more advanced ones.

In the advanced countries, movement has taken the form of a gradual occupational shift which has reduced the agricultural labour force. As manpower has moved out, the productivity of labour in agriculture has risen, as have also farm wages and incomes. The occupational change has been a concomitant of economic growth.

Problems of adjustment have arisen in the past when agricultural depression and general unemployment coincided. In the recent period of full employment, these problems have receded. The cumulative effects of differential rates of mobility—e.g., as between old and young workers, small and large farms, or rich and poor regions—now give rise to some maldistribution of labour within agriculture; in consequence special policies are required to increase farming efficiency or aid the movement out of agriculture in the less productive sections of the farming community.

In the less developed countries, by contrast, the agricultural population continues to increase in numbers. The problems of adjustment to a declining agricultural labour force do not arise. Cumulative processes may nonetheless occur owing to, for example, an unbalanced age and sex distribution in the farm population. But the major problems are either insufficient movement or a type of movement which reflects unbalanced conditions without remedying them. In agriculturally overpopulated countries, the present rates of migration are too low to relieve the pressure of agricultural population on the land. In countries where alternating movement of labour is a chronic condition, the wastage of manpower is evident.

The crucial question is whether these situations in the less developed countries reflect an earlier stage through which their economies must
pass before they reach a position similar to that of the advanced countries, with a more economic utilisation of their labour force, or whether their development is taking place in conditions so dissimilar from those of the advanced countries that it is unlikely, if present conditions continue, that the movement of labour can bring about this desirable evolution.

If it is held that a drift to the towns in all and any conditions is an indication of progress because in the past century it has accompanied the economic development of a comparatively small sector of the world's population, then clearly the conclusion is that, from the economic standpoint, the higher the rate of movement the better. But if migration to the towns in the less developed countries springs from conditions basically different from those of North America, Oceania and western Europe in the past century, it is by no means certain that it will automatically bring about a more economic utilisation of the labour force, or an improvement in agricultural productivity.

The preceding reviews of movement in different national settings have shown that the factors determining movement are the same in all countries, namely relative incomes in agriculture and other occupations, employment opportunities, and a variety of social and institutional disadvantages affecting agricultural workers and the rural community. "Push" and "pull" vary in strength in different conditions but, to a greater or lesser extent, the same factors are universally operative.

The difference lies, not in the factors which directly determine movement, but in the causes of the low relative level of income in agriculture. An example may clarify this point. If it is argued that there are still too many people in agriculture, for example in France, where agriculture accounts for only 27 per cent. of the labour force, the main basis of the argument is that French agriculture cannot, by reason of the recent increase in labour productivity, dispose of its farm produce at prices which will ensure farmers a level of income comparable to the average in other occupations. Similarly, if it is argued that Great Britain, with 5 per cent. of its labour force in agriculture, could with advantage to the economy as a whole, reduce its agricultural production and manpower, the main basis of the argument is that food could be imported more cheaply. In each case, the decisive point is the relation between food supply and demand. But if it is argued that there are too many people on the land in India—a food-importing country with 74 per cent. of its labour force in agriculture—the basis of the argument is not the rapid increase of food production in relation to the demand for food. It is, on the contrary, the low and falling level of labour productivity in agriculture.
The point of contrast is that in the advanced countries the need for transferring labour out of agriculture as a long-term process arises from growing agricultural efficiency. In overpopulated agricultural countries, movement is needed if growing inefficiency, in the sense of a fall in output per head, is to be avoided. In many of the less developed countries, and indeed in whole continents, agricultural production fails to keep pace with an increasing population. Thus there is a fundamental difference in food supply conditions.

Conditions of demand also differ. In the less developed countries where urbanisation is proceeding rapidly, aggregate demand for food increases and raises food prices without stimulating a sufficient increase in production to keep pace with expanding demand. The inelasticity of food production keeps prices high. Unless food can be imported, the high cost of food will reduce the level of urban real wages, thus checking the expansion of demand for manufactured goods and hampering the growth of consumer goods industries. In the advanced countries, by contrast, shortage of food has not hampered industrial expansion since the middle of the nineteenth century.

Sweeping generalisations about the relationship between occupational change and economic growth may often be misleading, precisely because they are derived from the past experience of the advanced countries and do not take the present conditions of the less developed countries into account. To appreciate the differences in basic conditions, the familiar relationships between economic level and occupational structure may be briefly reconsidered.

**National Income per Head and the Proportion of the Labour Force in Agriculture**

The general correlation between the level of national income per head and the distribution of the labour force between primary, secondary and tertiary occupations is well known. The proportion of the labour force in agriculture is, indeed, one of the main criteria by which a country is judged to be advanced or underdeveloped. High personal income levels are found in countries where the proportion is low, and low income levels in countries where it is high.

It is usual to illustrate this relationship by making broad comparisons between rich and poor continents. In North America about 12 per cent., and in Europe (excluding the U.S.S.R.), about 30 per cent. of the population is dependent on agriculture, while in Asia and Africa the proportion seems to be of the order of 70 per cent. The relationship may be further illustrated by comparison between advanced and less
developed countries. In the United States, Canada, Australia and New Zealand, and most western European countries, the proportion of the labour force in agriculture amounts to less than one-fifth of the total, while in the less developed countries the proportion is as a rule much higher, ranging from one-third to three-quarters of the total labour force.

The correlation only holds good, however, in terms of broad contrasts. Comparison between different countries shows that a number of factors other than the general economic level of a country influence the proportion of the labour force in agriculture. Among these are the balance of trade in agricultural products, and the supply of land in relation to labour.

Tables 46 and 47 illustrate both the general relationship and the effect of the other factors mentioned. It must be stressed that the figures given are estimates; but, while they should not be taken as indicative of the level of welfare or conditions of living, they may be properly considered as appropriate indicators of the rough order of magnitude of the net production of goods and services per head in the countries included.

**TABLE 46. COMPARATIVE NET NATIONAL PRODUCT PER HEAD AND PROPORTION OF TOTAL LABOUR FORCE IN AGRICULTURE (EXCLUDING LATIN AMERICA)**

<table>
<thead>
<tr>
<th>Country</th>
<th>Net national product per head in dollars (1952-54 average)</th>
<th>Agricultural labour force as percentage of total labour force (1950 or nearest date)</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>1,870</td>
<td>13</td>
</tr>
<tr>
<td>Canada</td>
<td>1,310</td>
<td>19</td>
</tr>
<tr>
<td>Switzerland</td>
<td>1,010</td>
<td>17</td>
</tr>
<tr>
<td>New Zealand</td>
<td>1,000</td>
<td>19</td>
</tr>
<tr>
<td>Sweden</td>
<td>950</td>
<td>21</td>
</tr>
<tr>
<td>Australia</td>
<td>950</td>
<td>13</td>
</tr>
<tr>
<td>Belgium</td>
<td>800</td>
<td>12</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>780</td>
<td>5</td>
</tr>
<tr>
<td>Denmark</td>
<td>750</td>
<td>25</td>
</tr>
<tr>
<td>France</td>
<td>740</td>
<td>27</td>
</tr>
<tr>
<td>Norway</td>
<td>740</td>
<td>26</td>
</tr>
<tr>
<td>Germany (Fed. Rep.)</td>
<td>510</td>
<td>23</td>
</tr>
<tr>
<td>Netherlands</td>
<td>500</td>
<td>19 ¹</td>
</tr>
<tr>
<td>Italy</td>
<td>310</td>
<td>42</td>
</tr>
<tr>
<td>Turkey</td>
<td>210</td>
<td>86</td>
</tr>
<tr>
<td>Japan</td>
<td>190</td>
<td>49</td>
</tr>
<tr>
<td>Philippines</td>
<td>150</td>
<td>66</td>
</tr>
<tr>
<td>Thailand</td>
<td>80</td>
<td>85</td>
</tr>
<tr>
<td>Pakistan</td>
<td>70</td>
<td>65 ²</td>
</tr>
<tr>
<td>India</td>
<td>60</td>
<td>74</td>
</tr>
</tbody>
</table>


¹ 1947 figure. ² Figure from *Year Book of Labour Statistics, 1958* (Geneva, I.L.O.), p. 39.
Table 46 shows that, among the advanced countries, the proportion of the total labour force in agriculture is lowest in the United Kingdom and Belgium, for although these countries do not rank highest in the income scale they import a large proportion of their food requirements. Canada and New Zealand, although their incomes per head are higher, have a higher proportion of their labour force in agriculture because they are exporters of agricultural produce.

TABLE 47. LATIN AMERICA: GROSS NATIONAL PRODUCT PER HEAD AND PROPORTION OF TOTAL LABOUR FORCE IN AGRICULTURE, 1950

<table>
<thead>
<tr>
<th>Country</th>
<th>Gross product per head (in dollars)</th>
<th>Agricultural labour force as percentage of total labour force</th>
</tr>
</thead>
<tbody>
<tr>
<td>Venezuela</td>
<td>over 400</td>
<td>41</td>
</tr>
<tr>
<td>Argentina</td>
<td>” 400</td>
<td>25</td>
</tr>
<tr>
<td>Uruguay</td>
<td>” 400</td>
<td>22</td>
</tr>
<tr>
<td>Cuba</td>
<td>300-400</td>
<td>44</td>
</tr>
<tr>
<td>Chile</td>
<td>300-400</td>
<td>31 ¹</td>
</tr>
<tr>
<td>Mexico</td>
<td>200-250</td>
<td>61</td>
</tr>
<tr>
<td>Brazil</td>
<td>200-250</td>
<td>61</td>
</tr>
<tr>
<td>Guatemala</td>
<td>150-200</td>
<td>75</td>
</tr>
<tr>
<td>Paraguay</td>
<td>below 100</td>
<td>58</td>
</tr>
<tr>
<td>Bolivia</td>
<td>” 100</td>
<td>63</td>
</tr>
<tr>
<td>Haiti</td>
<td>” 100</td>
<td>77</td>
</tr>
</tbody>
</table>


¹ 1952 figure.

The position of Argentina and Uruguay, as revealed by table 47, illustrates the importance of the area of farm land per inhabitant. The proportion of the labour force in agriculture in these two countries is as low as in several of the countries which by convention are described as advanced because favourable natural resources and low man-land ratios enable them to achieve sufficiently high levels of productivity in agriculture to meet their own needs and to export agricultural produce while using only a small proportion of their labour force.

In addition to the general relationship between the proportion of labour in agriculture and the level of national income per head, there is also a relationship between the proportion of the population in agriculture and the level of farm productivity. The agricultural labour force generally achieves much higher levels of productivity when it represents a small proportion of the total labour force than when it
represents a large proportion, because its reduction has been accompanied by increased investment of capital in agriculture, with the result that more capital and more land are employed per unit of labour. In the advanced countries product per head may be ten or 20 times as high as in the less developed countries. The level of output per acre may also be higher in the advanced countries, although this is by no means true in all cases: some of the less developed countries with an essentially agricultural economy achieve a much higher output per acre than the advanced countries; but the level of income per man is low because the higher yields are achieved through labour-intensive methods.

What has just been said concerning the general relationship between agricultural efficiency, the proportion of the labour force in agriculture and the level of personal income is, however, subject to an important qualification.

In the rapidly developing countries already considered in Chapter V there is a great disparity between the level of net output per head in agriculture and in other economic sectors because investment is concentrated mainly in mining or other industries. The industrial sector shows an extremely high level of net output per worker, because it is well equipped with capital, and therefore a small proportion of the total labour force produces a large share of the national income, raising the average level per head; but agriculture remains primitive, using little capital, and may still retain a large proportion of the labour force.

Venezuela is an example. As table 47 above shows, its national income per head is as high as that of Argentina and Uruguay, although 41 per cent. of its labour force is in agriculture, while in the two latter countries the proportion is 25 and 22 per cent. Similarly, Mexico and Paraguay in 1950 had about the same proportion of their labour force in agriculture, and about the same low level of product per agricultural worker; yet in Mexico, owing to the high level of product per worker in industry, average gross product per head was twice as high as in Paraguay.¹ Thus the inverse ratio between the proportion of the labour force in agriculture and national income per head holds good only when the ratios of net product per worker in different sectors are similar. Since great disparities in net product per worker between different sectors of the economy characterise many rapidly developing countries, this consideration is of great importance in relation to the movement of labour out of agriculture.

FACTORS DETERMINING RELATIVE INCOMES IN AGRICULTURE AND OTHER SECTORS

Availability of Factors of Production

This relationship between levels of income per head and occupational structure might be explained simply in terms of differences between countries in the relative supply of the factors of production. Advanced countries with much capital and land per head can produce enough food to meet their needs, and even to export, using only a small proportion of their total labour force. Countries with little capital and land per head will have low levels of productivity, and must necessarily keep a large proportion of their labour force in agriculture, since even at low levels of consumption much labour will be required to feed the population.

Stated in these terms, the connection between economic level and occupational structure is obvious. But the relationship is two-sided, and this type of explanation does not show any causal connection between economic growth and shifts in the distribution of occupations. It simply shows that countries which are rich use their labour force more efficiently, and that countries which use their labour force efficiently are rich.

Nor does this type of explanation show why levels of labour productivity are generally lower in agriculture than in other sectors. Obviously the explanation of the general relationship between the proportion of the labour force in agriculture and the level of national income per head must lie in the generally lower level of labour productivity in agriculture, since if a large proportion of the labour force is engaged in a low productivity and low income sector, the level of personal income will necessarily be lower than if the proportion is small. The crucial question is, therefore, why the level of labour productivity is lower in agriculture than in other sectors in almost all countries.

One reason is, of course, that agriculture is less well equipped with capital. Generally speaking (and apart from certain important exceptions) the proportion of capital to labour is lower in agriculture than it is in industry; in other words, the amount of capital invested per worker (including land) is lower than in industry in general. In heavy industry and in mining the amount of capital invested per worker is, of course, much higher than in other industries such as, for example, the clothing industry and building; and in underdeveloped countries, handicraft industries may use even less capital per worker than agriculture. But if handicraft production is excluded, then the proportion
of capital to labour in agriculture is lower than the average proportion in industry.¹

The fact that less capital is invested per worker in agriculture than in industry may be explained in part by institutional factors: agriculture does not generally compete for its funds on the capital market, because the scale of enterprise is too small, and in many countries the organisation of farm credit is defective.² Yet institutional factors may also favour investment as, for example, in family farming systems³; but these may not suffice to meet the needs for large-scale investment, and small-scale agrarian structures will usually not succeed in maintaining a high rate of technical progress unless capital is mobilised through special institutions, such as a co-operative movement, or unless the State undertakes to provide capital for large-scale projects. The major reason why capital flows into industry rather than into agriculture is that industry generally offers a higher rate of return to capital, just as it offers a higher rate of return to labour. These higher rates reflect a necessity of economic growth.

Elasticity of Food Demand and Technical Progress in Agriculture

The generally accepted theory of the relationship between economic growth and occupational structure assumes that there is a causal relationship between the process of growth and the shift of labour out of agriculture. The validity of this theory is borne out by table 48, which bears witness to a long-term downward trend in the relative size of the agricultural labour force.

This causal relationship operates in two ways—through the low income-elasticity of demand for food (i.e. the fact that the proportion of income spent on food does not increase in proportion to an increase in income), and the rate of technical progress in agriculture.

Rising productivity in all sectors, including agriculture, raises personal income and, as incomes grow, people tend to spend relatively less on food and more on other things. The prices of agricultural produce will fall in relation to other prices, and agricultural incomes will fall in relation to other incomes. Consequently agriculture’s share

² See, for example, United Nations: Progress in Land Reform (New York, 1954), Chapter 8.
in the national income will decline. The decline in individual incomes in agriculture should cause a transfer of labour into other occupations, and this movement should tend to raise agricultural incomes per head in relation to incomes in other sectors. If incomes in agriculture are to be maintained at the same relative level, the proportion of the labour force in agriculture must decline at the same rate as agriculture's share in the national income.

Moreover, whatever the relation of the demand for food to total demand, if labour productivity is increasing more rapidly in agriculture than in the economy as a whole (as is the case in some of the advanced countries discussed in earlier chapters) it will be possible to produce a given supply of food with a smaller proportion of the total labour force. If the decline in relative demand and a more rapid rate of technical progress in agriculture occur together, then the necessity for movement of labour will be even stronger. If, however, labour productivity in manufacturing or other sectors tends to increase more rapidly than in agriculture, this will tend to counteract the effects of low demand-elasticity.

The influence of low demand-elasticity and high rates of technical progress in agriculture may be illustrated further by reference to the present position of agriculture in several advanced countries. As previous
chapters have shown, the rate of increase in food production in some of these countries now tends to exceed the rate of increase in demand for food. Price and income support policies raise farm prices much above the world level, and farmers' incomes are much higher in relation to incomes in other occupations than they were in the inter-war years. As a result, the expansion of agricultural production tends to exceed the rate of expansion of aggregate demand. Policies designed to take food produce off the market, or to reduce cultivation, have been introduced in the United States and, to a much smaller extent, in some western European countries. In western Europe food supplies available for consumption in 1957 exceeded the supplies produced by about 12 per cent.\footnote{United Nations Food and Agriculture Organisation: \textit{The State of Food and Agriculture, 1957} (Rome, 1957), p. 73.} The exporting countries are faced with contracting markets. Unless wider markets can be found (in rapidly developing under-developed countries, for example) measures of income support are likely to be ineffective.

But this type of problem is confined to the economically advanced countries. In the less developed countries the increase in food production does not tend to outrun the increase in demand. The low level of relative incomes in agriculture and the tendency of relative incomes to fall, certainly cannot be explained as a result of the tendency for labour productivity to increase more rapidly in agriculture than in other sectors. Nor can a relatively slower rate of increase of demand for food account for the low level of incomes in agriculture, since in Latin America, trans-Saharan Africa and most of Asia food production lags behind the increase of population.

In considering the relevance of the theory of the causal relationship between economic growth and the proportion of the population in agriculture to the conditions of underdeveloped countries, two important qualifications must be borne in mind. The first relates to income elasticity of demand:

\ldots When applied to the whole economy, the concept of the income elasticity of demand raises problems of aggregation which affect any general proposition about changes in its average value with economic growth; and this applies particularly when relative factor prices and the distribution of incomes change. The proportion of the total national income spent on agricultural products is necessarily the average of the proportion spent by each member of the population as a whole. Even if the income elasticity of demand for these products is less than unity \footnote{Elasticity of demand for a product is measured by the percentage increase in consumption of that product corresponding to a 1 per cent. increase in income.} (which is by no means necessarily the case) so that each individual spends a smaller proportion of his income on these products as his income increases, the average proportion of income spent on these
products may still increase if most of the increase in the national income accrues to people whose relative expenditure on these products is above the national average. Such a result is a likely contingency in underdeveloped countries, where the income elasticity of demand for these products is generally high. There is no ground for assuming a unique relation between changes in national income and changes in the average expenditure on agricultural products; still less between changes in the national income and the proportion of the population in agricultural and industrial occupations.¹

The validity of this criticism is particularly evident in relation to the rapidly developing economies of Latin America, Africa and the Middle East. Total population is growing at rapid rates. Because the general level of income is low, it may be presumed that income elasticities of demand are high. Such evidence as is available from consumer surveys shows that expenditure elasticities of demand for food are higher in the less developed than in the advanced countries ², although the use of income or expenditure elasticity figures derived from consumer surveys of different patterns of consumption at different income levels at a given time may be seriously misleading as a guide to the calculation of future changes in demand. Little is in fact known about income elasticities of demand in underdeveloped countries, for patterns of consumption are certainly much influenced by changes in occupation and urbanisation. But the effect of economic development on the aggregate demand for food will depend mainly on the rate of increase in income per head and on the distribution of increments in income. If development is concentrated in one highly capitalised branch of industry which employs little manpower and offers higher incomes to a small section of the labour force, aggregate demand will increase less than if increases in income are spread more widely, even though income elasticities are the same in both cases.

A second important consideration concerns technical progress. The past experience of the advanced countries justifies the assumption that economic growth will involve a high rate of technical progress in agriculture. During the second half of the nineteenth century the expansion of the world economy favoured a very rapid expansion of agricultural production. But technical progress was only one aspect of this expansion, and was itself conditioned by great changes in the international distribution of capital and labour. One of the most important factors in the


expansion of the nineteenth century world economy was the great volume of capital invested in agriculture, both directly and indirectly (e.g., through investment in railway construction and ocean transport). A second factor was a great extension in the areas of land cultivated; and a third was international migration on a large scale. New lands were opened up, and millions of immigrants moved into agriculture in countries where new methods could increase agricultural production and the productivity of labour very rapidly.

These exceptionally favourable conditions enabled the United States, Canada, Australia and New Zealand to satisfy the increasing demand of their rapidly growing populations for food and to export to Europe, with the use of comparatively little manpower—as compared with European countries. Agricultural development in the major food-exporting countries preceded their later industrial development and conditioned it. In two periods—the late 1870s and the early 1930s—the rate of increase of food production was much faster than the rate of increase of effective demand, and agricultural prices fell sharply in relation to prices of manufactured goods. Effective demand failed to increase, chiefly because economic depression caused unemployment. Industrial development followed the early period of agricultural expansion, fostered by tariff policies which protected industry. Western European countries, as shown in Chapter III, reacted either by converting their agriculture to the production of dairy produce and meat, relying on imported feed grain, or protected their agriculture from the full effects of cheap imports by tariffs. Thus the underlying causes of the rapid rate of increase in agricultural production in the past century were great shifts of capital and labour into new fields.

*Declining Agricultural Incomes in the Less Developed Countries*

Today in the mainly agricultural continents of the world the nineteenth century agricultural growth factors—the opening up of new lands, the resettlement of population, large-scale capital investment in agriculture—operate only on a small scale. New foreign investment is directed mainly into industry and mining, and only to a small extent into export crop production. Land reclamation is slow and costly, and generally does not represent a large addition to the total cultivated land area. Overcultivation has resulted in soil erosion in great tracts of Africa and has diminished fertility in Latin America. The roads, railways and public services needed to bring new areas into production are not provided on a sufficient scale. These are among the many reasons why food production does not increase more rapidly.
Clearly, the relative decline in farm incomes in the countries discussed in the two preceding chapters must take place against an economic background quite different from that which characterises the advanced countries. Incomes are, of course, determined by a great variety of factors, and generalisation over so vast a field may be misleading. But a review of the conditions obtaining in the countries in question does suggest several basic similarities.

Declining Productivity in Agriculture.

In densely populated agricultural countries the growth of the farm labour force itself may reduce output per head, and so reduce incomes. It may also result in underemployment or unemployment. Labour will leave the land in search of other work, and incomes in other occupations will decline if the volume of non-agricultural employment is not increasing fast enough. The continuous pressure of labour on the land will tend to depress agricultural incomes still further.

Agricultural overpopulation is certainly the main reason for the low relative income level in India and Pakistan. Japan succeeded in absorbing sufficient agricultural labour into industrial and commercial employment in the past to keep its agricultural labour force constant in numbers, but as Chapter V has shown, this position could not be maintained during the war and the immediate post-war period. With a strong income push factor operating, and with an insufficient pull factor in growing industrial employment, labour movements generally are not a balancing factor because they do not proceed fast enough to relieve population pressure. Even when the rate of migration is fast enough to prevent an increase in the agricultural labour force, as in Pakistan, the outward movement of labour does not stimulate investment in agriculture. Surplus population on the land may shift to the towns without adding to the national income.

Rapidly Rising Income and Productivity in Industry and Commerce.

As Chapter VI has shown, a characteristic of the rapidly developing economies is large-scale investment in the urban sectors. This need not necessarily spread its effects to agriculture, even though aggregate demand for food may be increasing. Income disequilibrium may continue, causing a big movement to the cities, which, though beneficial to the migrants, is not necessarily a balancing factor if migrants move into low productivity sectors and if farm incomes do not increase. The rapidly developing economies of Latin America, trans-Saharan Africa and the oil-producing countries in the Middle East provide the outstanding examples of movement caused by one-sided development.
World Market Prices.

In the less developed countries incomes in agriculture are influenced more directly by world market prices than in the advanced countries, since food production as a rule is not subsidised. Moreover, in some of these countries a large proportion of agricultural production consists of industrial raw materials, and is consequently affected by changes in the volume of world industrial production rather than by the demand for food. Many agricultural countries have developed by specialising in the production of industrial crops for export, and labour has been attracted from food production into these branches. World market conditions have been subject to wide fluctuations, so that there is no long-term income trend. In periods of falling world commodity prices, as at present, farm incomes decline sharply. These conditions affect chiefly the countries which have reached high levels of productivity per acre, e.g. Ceylon, Egypt and some Latin American countries, particularly the coffee producers. Movement of labour out of export crop production may be impeded by shortage of land for food crop production, as in Ceylon.

* * *

These are some of the reasons why problems associated with the movement of labour out of agriculture are so much more serious in the less developed than in the advanced countries. Falling levels of relative income in agriculture reflect a lack of balance in the economy, which is too great to be redressed by the movement of labour alone. In some cases, the effects may be cumulative. The downward trend of agricultural incomes restricts the expansion of demand for manufactured products, and so prevents industrial expansion. At the same time, the movement of labour to the towns will further stimulate private and public capital to invest in the urban sector, without necessarily spreading to agriculture. The effect of these different income determinants may be illustrated by contrasts in levels of income per worker in different sectors of the economy in advanced and in less developed countries.

Relative Incomes and Occupational Balance

Comparison of income (or gross or net product) per worker in agriculture and in other sectors of the economy can be used as a measure of the lack of balance between agricultural and other employment. If the level of income per worker in agriculture is much lower than in other sectors, this is an indication that labour should be transferred into
other sectors. This movement should raise the relative level of income per worker in agriculture, and thus contribute to a more economic utilisation of the labour force and to a more balanced occupational structure.

Where the disparity in incomes persists over a long period or even increases, this may be an indication that labour is not moving out of—or capital into—agriculture at a sufficient rate. Which countries have achieved occupational balance, and which countries are farthest from achieving it can be determined by comparing the share of agriculture in the labour force with its share in the national income. Where the two are the same, or approximately the same, a balanced occupational structure may be said to exist. But if the proportion of the total labour force in agriculture is much greater than its share in the national income, then average incomes in agriculture are much lower than in other sectors, and there is a disequilibrium in the occupational distribution of the labour force.

If, for example, the share of agriculture in the national income is 15 per cent. and its share in the total labour force 30 per cent., then the income per head in agriculture is equal to half the income per head in all occupations, and to 41 per cent. of the income per head in other occupations. The greater the difference between agriculture's share in the national income and its share in the total labour force, the greater the disparity in average income between agriculture and other occupations.

This method of calculating the disparity in incomes per head between different sectors of the economy does not, as Chapter I emphasised, show the extent to which incomes received by farmers or farm workers are lower than the incomes which they could obtain by moving into other occupations. In Chapter I it was pointed out that the income disparities which influence movement are different for farmers and farm labourers, and for young and old workers. But since the income disparities between the earnings of individuals in agriculture and in other occupations derive from the general disparity in the return per head in different sectors of the economy, the comparison of average national income per worker gives a broad indication of the extent of disequilibrium between different occupations.

Table 49 shows, for several countries, the ratio between domestic product per worker employed in agriculture and in the remaining sectors of the economy.

The labour force statistics on which these figures are based relate generally to the number of persons gainfully employed, rather than to the number of man-years worked. Hence the relatively greater importance of part-time employment (and, in the less developed countries, of under-
TABLE 49. DOMESTIC PRODUCT PER WORKER IN AGRICULTURE \(^1\) AND IN OTHER SECTORS OF THE ECONOMY IN RECENT YEARS \(^2\)

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage share of agriculture in Workers employed</th>
<th>Domestic product</th>
<th>Ratio between domestic product per worker in agriculture and in other sectors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Egypt</td>
<td>64</td>
<td>35</td>
<td>0.3</td>
</tr>
<tr>
<td>Union of South Africa</td>
<td>33</td>
<td>16</td>
<td>0.4</td>
</tr>
<tr>
<td>Asia:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>India</td>
<td>74</td>
<td>48</td>
<td>0.3</td>
</tr>
<tr>
<td>Japan</td>
<td>41</td>
<td>20</td>
<td>0.4</td>
</tr>
<tr>
<td>Philippines</td>
<td>59</td>
<td>40</td>
<td>0.5</td>
</tr>
<tr>
<td>Thailand</td>
<td>88</td>
<td>46</td>
<td>0.1</td>
</tr>
<tr>
<td>Europe:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Austria</td>
<td>33</td>
<td>16</td>
<td>0.4</td>
</tr>
<tr>
<td>Belgium</td>
<td>10</td>
<td>7</td>
<td>0.7</td>
</tr>
<tr>
<td>Denmark</td>
<td>23</td>
<td>19</td>
<td>0.8</td>
</tr>
<tr>
<td>Finland</td>
<td>46</td>
<td>22</td>
<td>0.3</td>
</tr>
<tr>
<td>France</td>
<td>27</td>
<td>16</td>
<td>0.5</td>
</tr>
<tr>
<td>Germany (Fed. Rep.)</td>
<td>18</td>
<td>9</td>
<td>0.4</td>
</tr>
<tr>
<td>Ireland</td>
<td>38</td>
<td>32</td>
<td>0.8</td>
</tr>
<tr>
<td>Italy</td>
<td>35</td>
<td>22</td>
<td>0.5</td>
</tr>
<tr>
<td>Netherlands</td>
<td>12</td>
<td>12</td>
<td>1.0</td>
</tr>
<tr>
<td>Norway</td>
<td>25</td>
<td>13</td>
<td>0.5</td>
</tr>
<tr>
<td>Spain</td>
<td>50</td>
<td>26</td>
<td>0.4</td>
</tr>
<tr>
<td>Turkey</td>
<td>77</td>
<td>42</td>
<td>0.2</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>4.3</td>
<td>4.5</td>
<td>1.0</td>
</tr>
<tr>
<td>Latin America:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Argentina</td>
<td>26</td>
<td>16</td>
<td>0.5</td>
</tr>
<tr>
<td>Chile</td>
<td>30</td>
<td>18</td>
<td>0.5</td>
</tr>
<tr>
<td>Colombia</td>
<td>54</td>
<td>39</td>
<td>0.5</td>
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<tr>
<td>North America:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canada</td>
<td>16</td>
<td>9</td>
<td>0.5</td>
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<tr>
<td>United States</td>
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<td>0.4</td>
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<tr>
<td>Oceania</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Zealand</td>
<td>18</td>
<td>24</td>
<td>1.4</td>
</tr>
</tbody>
</table>

Source: Year Book of Labour Statistics, 1959 (Geneva, I.L.O.); United Nations: Economic Survey of Europe in 1958 (Geneva, 1959); and Yearbook of National Accounts Statistics (New York, United Nations), 1958 and previous years. Most of the figures showing the share of agriculture in the labour force refer to 1956, while those showing its share in domestic product represent averages for the years 1955 to 1957. Somewhat less recent data had to be used in respect of the following countries: Egypt, Union of South Africa, India, Thailand, Austria, Finland, France, Argentina, Chile, Colombia and New Zealand.

\(^1\) Including forestry, hunting and fishing. \(^2\) 1956 or nearest year.

employment) results in some underestimation of the figures for domestic product per worker in agriculture. Where the agricultural labour force is employed part of the time in other sectors—and data given in earlier chapters have emphasised the importance of off-farm work in countries such as the United States, Western Germany, Norway, Sweden and
Japan—relative real incomes per farm worker may be more favourable than the figures suggest. Another factor which may affect the comparability of the figures for agricultural workers with those relating to other workers is the number of unpaid family workers in agriculture.¹ This factor is particularly important in countries where women constitute an important element in the agricultural labour force, such as France, Western Germany and Italy. The resulting downward bias is further accentuated by the frequent underestimation in national income figures of subsistence farming and similar activities carried on outside the market economy. Nevertheless, although the figures may exaggerate, owing to the cumulative effect of the factors just enumerated, they may be regarded as reasonably adequate for broad comparisons of the order of magnitude of the disparities in domestic product per worker between agriculture and the rest of the economy.

Based on the figures given in table 49, it appears that countries may be roughly divided into four main groups. The first consists of countries in which product per worker is higher in agriculture than in other sectors.

New Zealand is the only country in this group shown in the table: the product ratio favours agriculture by quite a wide margin. However, New Zealand is not the only country in this position. For Australia an estimate for 1949-50 gives a similar ratio.² For Uruguay, a recent estimate has also shown that product per worker is higher in agriculture than in other sectors.³

In a second group of countries, relative products are very nearly equal, with ratios varying from 0.7 to unity. These countries include Belgium, Denmark, Ireland, the Netherlands and the United Kingdom (where absolute parity exists). Differences within this range may roughly measure the disadvantages of movement to the farmer. As was pointed out in the introductory chapter, farmers are to some extent a specific factor of production and will not be induced to leave agriculture unless the disparity in income is fairly large. How great this disparity may be must remain, a matter of conjecture, but it may be fairly assumed to exceed 25 per cent.

A third group consists of countries in which domestic product in agriculture is equal to about half that in other sectors. These countries

include Austria, Argentina, Canada, Finland, France, Western Germany, Italy and Norway. Sweden should also be included in this group; comparable figures are not available, but the data reviewed in Chapter III show that the disparity is of this order.

Finally, there is the large group of countries in which domestic product in agriculture is equal to about one-third or less than one-third of domestic product in other sectors. In the less developed countries the ratios are generally much wider than they are in the advanced countries. This is the most striking contrast which emerges from the table. Product ratios range from 0.1 to 0.4. Table 49 does not include a number of Latin American countries where product disparities are also very wide. According to a recent estimate, the ratio in Venezuela is extremely low: product per employed person in the non-agricultural sector is seven times as high as in agriculture.¹

The most obvious conclusion which can be drawn from these comparisons of sector products per head is that the countries which show a product ratio favourable to agriculture, or ratios close to parity, include most of those in which output per worker in agriculture is high in absolute terms. New Zealand, Australia, the United States, Canada, Denmark, the United Kingdom, the Netherlands and Belgium, in that order, are the countries with the highest levels of agricultural output per worker in the world.² In the case of the United Kingdom, price support and subsidies account partly for the favourable income position. Levels of labour productivity are high because these countries use much land and capital per worker in agriculture. In Belgium and the Netherlands high capital intensity maintains high levels of land and labour productivity. Argentina and Uruguay also achieve high levels of output per worker, mainly because land is abundant in relation to available labour.

Thus it appears that agriculture can achieve a level of output per worker which (taking the mobility disadvantage into account) roughly approximates parity with other occupations when the ratio of capital to labour (including land as a form of capital) resembles that existing in industry. As has already been emphasised, less capital is generally invested per worker in agriculture than in industry. But in the countries with a high level of productivity the relationship of the factors of production in agriculture resembles the relationship in industry, either because land is plentiful and labour scarce, or because farm policy and organisation have fostered a capital-intensive structure, or for both of these reasons combined.

¹ Economic Bulletin for Latin America, loc. cit.
² For comparative figures see Colin Clark, op. cit., pp. 275-276.
In these conditions, agriculture's favourable position should tend to stabilise employment. In New Zealand it would appear to have had this effect: the labour force in agriculture increased slightly in 1950-56. In Australia the labour force in agriculture (including forestry and fisheries) was almost constant from 1947 to 1954, having declined by only 1 per cent. In Uruguay, where sector product per worker is estimated to have been higher in agriculture than in the non-agricultural sector in 1950, the labour force in agriculture is estimated to have remained stable between 1945 and 1955.1 These countries may therefore be considered to have achieved occupational balance because the favourable position of agriculture in relation to other occupations retains factors of production in that sector.

In the second group of countries—those which have achieved a position of parity or near parity—movement out of agriculture still continues. In Denmark, the Netherlands and the United Kingdom the decline in the labour force mainly concerns hired workers; agricultural wages are lower than wages in industry, although the over-all relative income position is fairly favourable to agriculture.

The much wider ratios in the third group of advanced countries probably indicate some lack of balance in the occupational structure. The position of some countries in this group is surprising, particularly the United States and Canada, because their levels of labour productivity in agriculture are among the highest in the world. Moreover, the rate of increase of productivity in agriculture in recent years has exceeded the rate of increase in other sectors, and the rate of movement out of agriculture has been extremely high. As Chapter II suggests, the explanation may be that there is still too much labour "dammed up" in low productivity farms, and too little mobility among the low income farmers; moreover, in the United States the prevalence of part-time farming greatly exaggerates the size of the labour force in agriculture.

The low ratios in France and Western Germany can to some extent certainly be attributed to low levels of labour productivity in certain sections. In France these are the "underdeveloped regions", and in Germany the smaller family farms. In Western Germany, however, the prevalence of part-time farming is probably a partial explanation of the unfavourable product ratio. In Norway and Sweden the large numbers of part-time farmers are the main explanation of the unfavourable ratio which, in the case of these countries, certainly does not indicate a correspondingly unfavourable position in real incomes per head of the farm population in relation to other occupations.

Within this group of countries, therefore, it appears likely that lack of occupational balance may be due to a low rate of mobility in the low productivity sectors—the smaller family farmers, or the least favoured regions. Where a large proportion of the agricultural labour force is engaged part of the time in other occupations, a wide product ratio may or may not indicate a correspondingly lower level of labour productivity, and certainly does not indicate a correspondingly low relative income.

From a comparison of these two groups of advanced countries, the first in a position of parity or near parity, and the second with a sector product ratio of about one-half, an important conclusion can be drawn. The reduction of the labour force in agriculture in both groups has been one of the factors contributing to raise the level of incomes of the workers remaining in agriculture. But it is only one factor among many others. That its importance should not be exaggerated is shown by the position of the Netherlands, with a high level of labour productivity in agriculture and a near parity position, although the size of the labour force in agriculture did not begin to decline until after 1947. In the countries with a sector product ratio of about one-half, the unfavourable income position has given rise to outward movements of labour which are generally much faster than in the parity group. But transfer of manpower has not been fast enough to redress the balance.

One of the other most important conditions of occupational balance would appear to be the volume of capital investment in agriculture and the method by which capital is supplied to the farmer. Some of the parity countries are exceptionally well endowed in natural resources, and achieve high levels of agricultural labour productivity because they entered an expanding world economy with sparsely settled populations and plentiful land. But others are not particularly well placed so far as land resources are concerned—Denmark, for example, and above all the Netherlands, with its extremely high density of farm population. These two countries have followed a comprehensive investment policy on three levels: farmers' private investment in machinery and livestock; co-operative investment in processing factories; government investment in capital construction, i.e. roads, power and storage facilities, and in agriculture's human resources, through general education and vocational training. As labour has moved out, capital has moved in—and moved in through several channels, creating a corporate and organised agrarian structure. This offers the benefits of large-scale management, where quality is concerned, and yet retains farmers' individual enterprise as an essential element. Agriculture's economic position is comparable to that of industry, because its structure has evolved and been guided
towards a comparable degree of equipment, although the unit of enterprise remains small.

Might it be surmised that one of the reasons why contrasts in labour productivity between different sections of the farming community are so wide in the United States and several western European countries is that the function of investment is left too much to the individual farmer? Farm prosperity is, after all, cumulative in so far as increases in productivity are achieved most easily by those who are already most efficient, while the weaker producers lag behind. However that may be, there can be little doubt that attempts to raise farm incomes to parity levels by means of price supports will be doomed to failure unless greater efforts are made to strengthen the capital structure. Even a higher rate of migration is not likely in itself to raise the standards of the least efficient farmers. The farm rationalisation policy pursued in Sweden is a recognition of this fact.

If the need for measures to raise incomes and productivity by strengthening the capital structure of agriculture is evident in advanced countries, it is far greater in the less developed countries. The very low level of product per worker in agriculture as compared with other sectors indicates both a greatly excessive supply of labour and a grossly inadequate supply of capital. The lack of occupational balance indicated by the ratios is much greater than in the advanced countries.

Moreover, such evidence as is available suggests that in some countries the disparities grow wider. In Japan the proportion of the national income contributed by agriculture fell from 32 per cent. in 1948 to 21 per cent. in 1954, while the proportion of the total labour force in agriculture declined from 52 to 45 per cent. In Thailand the proportion of the national income contributed by agriculture fell from 61 to 44 per cent. between 1948 and 1954; although no labour force figures are available for the same period, it appears unlikely that there can have been a proportionate change. The shrinkage of agriculture’s share in the national income in these two cases is presumably due to changes in world agricultural prices.

In Latin America the disparity between product per worker in the agricultural and non-agricultural sectors appears to have changed little between 1945 and 1955, although labour productivity in agriculture has increased very rapidly in some countries. For the continent as a whole the product ratio remains low:

... The contribution to the gross product made by an agricultural worker is less than 30 per cent. of that corresponding to a non-agricultural worker: in

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other words, three-and-a-half persons employed in agriculture contribute as much as one person engaged in other activities.\(^1\)

As between the agricultural and non-agricultural sectors, there has been some slight improvement in the ratio in this period. Gross product per worker in agriculture increased by 18 per cent., while in the non-agricultural sectors it increased by 12 per cent. But in mining and manufacturing gross output per worker increased by 56 and 24 per cent. respectively, so that the gap between agriculture and industry widened.

The reason why the movement of labour out of agriculture into other occupations does not help to eliminate product disparities to a greater extent is presumably that the occupations into which labour moves are chiefly in the building and services sectors, where product per worker, though higher than in agriculture, is lower than in mining and manufacturing. This is also the reason why the rate of urbanisation is not related to the rate of growth of the national income and why "impressive shifts in manpower are not associated with appropriate improvements in the standard of living of the greater part of the population".\(^2\)

To achieve a better utilisation of the labour force in such conditions, policy must aim at checking the cumulative processes which cause agricultural incomes to fall. In overpopulated countries, where there is an unsatisfied (but not necessarily effective) demand for food, this will primarily involve raising the level of yields per acre. Where aggregate demand for food is growing, as in the rapidly developing countries, and where natural resources allow expansion of domestic food production at low cost, this may involve investment in land reclamation and irrigation, and also in capital construction. If the causes of low incomes are tackled, by raising the level of agricultural productivity, the movement of labour will not be arrested, nor is it desirable that it should be. But the push factors will not be so strong, and migrants will not be driven to the cities by sheer need, since agriculture will offer a better livelihood. The pull factor—the expansion of industrial employment—may even be stronger if agriculture can produce larger surpluses for the urban market.

The question of how such policies are to be achieved lies beyond the scope of this survey. Some authorities argue that the best way is to concentrate on improving productivity where it is highest, in the regions and on types of farms where there is most scope for improvement. Others believe that higher investment can be achieved by land reform

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with the aim, among other things, of creating family farms and developing co-operative farming. Community development is also considered in this setting. The possibilities are many, and the experience has yet to be evaluated.

But, whatever method is used, it is clear that neglect of agriculture in development plans can only serve to increase the lack of balance in the occupational structure. Even in the agriculturally overpopulated countries, where expansion of employment in industry is the prime requisite for more balanced development, the condition for industrial expansion sustained by higher income levels may be the improvement of agricultural efficiency:

... Paradoxically, the best way for government to foster industrialisation may be for it to use more rather than less of its resources to encourage the enlargement of agricultural output and the improvement of agricultural techniques.¹

This review of the problems of movement of labour out of agriculture in the less developed countries has led to the conclusion that such problems are a reflection of the lack of balance in the structure of the economy as a whole. All growth begins with lack of balance: some countries develop more rapidly than others; some regions, industries and types of farming go ahead faster than the rest. But if the lack of balance persists the process of growth may be checked. "The position of the rural sector in an underdeveloped economy," says an Indian economist, "in relation to its urban sector is, therefore, not unlike that of the underdeveloped economy itself in relation to more developed economies."²

**Comparative Wages**

Comparison of wages in agriculture and other occupations is difficult for a variety of reasons, one of the most important being the problem of choosing a standard of comparison. In the preceding chapters comparative wage figures have been quoted which use different standards, in most cases comparisons of wages in agriculture with wages in all other occupations.

For the purpose of making international comparisons of wage differentials, it is necessary to select a uniform standard of comparison. Since figures for wages in all occupations are not generally available, the standard selected here is manufacturing industry. Table 50 shows

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¹ Bauer and Yamey: *The Economics of Underdeveloped Countries*, op. cit., p. 236.
rates of pay in agriculture compared with average earnings in manufacturing in 1950 and 1958 for the few countries for which such data are available. It should be noted that this table does not provide any basis for comparison of absolute levels of earnings from one country to another. Lack of homogeneity in the statistics compiled in the various countries renders such comparison impossible, as the notes accompanying the table show. The figures may be used to compare differentials only.

From the table it appears that the disparity between agricultural and manufacturing wages has increased in recent years in most countries. This is the case even where rates of movement out of agriculture are high, as in the United States and Canada. The reduction in the size of the agricultural labour force does not tend to bring farm wages up to the level of other wages, although it may prevent the gap from widening further. Western Germany shows a slight improvement in the relative wage position, which may be the result of outward movement, while in Sweden the difference is unchanged.

Table 50 also shows that wage contrasts are much greater in some countries than in others. Only in Australia is the wage ratio favourable to agricultural workers. Countries which show big differences, with the rate of pay in agriculture less than 60 per cent. of earnings in manufacturing, include Canada, the United States, the United Kingdom, India and Japan. The position is less unfavourable in Western Germany, Norway, Sweden and New Zealand, where the proportion is around 70 per cent. Comparisons based on other standards used in national figures show broadly similar contrasts.

Wage differences are greatest in countries where technological progress is rapid, such as Canada and the United States, where downward pressure on agricultural wages may be the result of farm mechanisation. Other factors, particularly the low level of earnings among migrant workers, and lack of trade union organisation, may also account in part for the low comparative level of farm wages in these countries.

Earlier in this chapter it has been shown that disparities in average incomes per worker as between agriculture and other sectors are generally, though not universally, smaller in the advanced countries than in the less developed. So far as farm wages are concerned, however, there is no evidence to show that economic growth has tended to bring them up to the level of others, since in some advanced countries the wage differentials are as large as in the less developed countries (although in others they are more favourable to the farm worker). Nor is there any obvious correlation between the wage differences shown in table 50.

1 Average ratios in agriculture are, however, computed by a formula which gives particular importance to the highly paid occupation of sheep shearer.
### Table 50. Wages in Agriculture and Manufacturing in Several Countries, 1950 and 1958

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<td><strong>Asia:</strong></td>
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<tr>
<td>India . . .</td>
<td>rupees per day</td>
<td>1.35</td>
<td>1.15</td>
<td>2.69</td>
<td>3.43</td>
<td>50.2</td>
<td>33.5</td>
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<tr>
<td>Japan . . .</td>
<td>yens per month</td>
<td>6,030</td>
<td>9,720</td>
<td>9,133</td>
<td>19,259</td>
<td>66.0</td>
<td>50.5</td>
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<td><strong>Europe:</strong></td>
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<td></td>
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<tr>
<td>Germany (Fed.Rep.)</td>
<td>marks per hour</td>
<td>0.84</td>
<td>1.56</td>
<td>1.29</td>
<td>2.27</td>
<td>65.1</td>
<td>68.7</td>
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<tr>
<td>Italy . . .</td>
<td>liras per day</td>
<td>741</td>
<td>1,088</td>
<td>1,028</td>
<td>1,761</td>
<td>72.1</td>
<td>61.8</td>
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<tr>
<td>Norway . .</td>
<td>crowns per day</td>
<td>19.64</td>
<td>32.92</td>
<td>25.76</td>
<td>45.52</td>
<td>76.4</td>
<td>72.3</td>
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<tr>
<td>Sweden . .</td>
<td>crowns per hour</td>
<td>1.81</td>
<td>3.54</td>
<td>2.73</td>
<td>5.34</td>
<td>66.3</td>
<td>66.3</td>
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<tr>
<td>United Kingdom .</td>
<td>s. d. per week</td>
<td>100/0</td>
<td>156/0</td>
<td>156/8</td>
<td>265/5</td>
<td>63.8</td>
<td>58.8</td>
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<td><strong>North America:</strong></td>
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<tr>
<td>Canada . .</td>
<td>$ per day</td>
<td>4.90</td>
<td>7.10</td>
<td>8.29</td>
<td>13.28</td>
<td>59.1</td>
<td>53.5</td>
</tr>
<tr>
<td>United States .</td>
<td>$ per day</td>
<td>4.50</td>
<td>6.00</td>
<td>11.76</td>
<td>17.04</td>
<td>38.3</td>
<td>35.2</td>
</tr>
<tr>
<td><strong>Oceania:</strong></td>
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<td></td>
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</tr>
<tr>
<td>Australia . .</td>
<td>s. d. per week</td>
<td>194/7</td>
<td>358/5</td>
<td>181/8</td>
<td>316/11</td>
<td>107.1</td>
<td>113.1</td>
</tr>
<tr>
<td>New Zealand . .</td>
<td>s. d. per week</td>
<td>135/10</td>
<td>200/6</td>
<td>197/7</td>
<td>275/3</td>
<td>68.7</td>
<td>72.8</td>
</tr>
</tbody>
</table>


**General note.** Unless otherwise specified, wages in agriculture represent rates of pay of workers remunerated wholly in cash, and wages in manufacturing represent average earnings.

**Country notes.**
- **India:** daily wage rates of casual male day labourers in agriculture, excluding the value of board and lodging provided, compared with average monthly earnings in 1957 of workers in manufacturing (both sexes) divided by 30 (data for 1950 and 1957; 1950 data for agricultural workers refer only to Bombay state).
- **Japan:** average daily wages of casual male day labourers, excluding the value of board and lodging provided, multiplied by 30, compared with average monthly earnings of workers of both sexes in manufacturing (data for 1950 and 1957).
- **Germany (Federal Republic):** minimum hourly wage rates of skilled day labourers in agriculture compared with average hourly earnings in manufacturing.
- **Italy:** daily wages of male agricultural workers compared with daily earnings of male workers in manufacturing (data for 1950 and 1956).
- **Norway:** daily wages of regular male day labourers in agriculture compared with hourly earnings of male workers in manufacturing multiplied by eight.
- **Sweden:** hourly wages of male farm workers compared with hourly earnings of male workers in manufacturing (data for 1950 and 1957).
- **United Kingdom:** weekly minimum rates of male general farm workers compared with average weekly earnings of male workers in manufacturing.
- **Canada:** daily earnings of male general farm hands compared with hourly earnings in manufacturing (workers of both sexes) multiplied by eight.
- **United States:** daily rates of day labourers in agriculture compared with hourly earnings in manufacturing multiplied by eight.
- **Australia:** weekly wage rates of male workers in agriculture, including the value of food and lodging wherever provided, compared with minimum weekly wage rates of male workers in manufacturing.
- **New Zealand:** weekly wages of male general farm hands, including the value of food and lodging, compared with weekly earnings of male workers in manufacturing in 1950 and hourly earnings in 1958 multiplied by average weekly hours.
and the average income disparities shown in table 49. In the United States and the United Kingdom wage differentials are greater than product disparities: in other words, wage earners on farms are worse off in relation to wage earners in manufacturing than the average worker in agriculture (including farmers and non-paid workers) is in relation to the average worker in other sectors. On the other hand, in Germany, Italy, Norway, and Sweden, however, the wage differences are not as great as the differences in average incomes.

The explanation of these contrasts lies in the distribution of income among different groups in the agricultural community. Where a large proportion of the farms are small, and much family labour is employed, incomes of small farmers and their families may be lower than rates of pay for hired workers, who are employed mainly on larger farms. This is presumably the explanation of the comparatively favourable position of farm workers in Western Germany, Norway and Sweden. The prevalence of part-time off-farm work among smaller farmers in these countries also reinforces the contrast, since farmers’ total incomes are more favourable in relation to other incomes than is shown by sector product comparisons.

In Italy the prevalence of unemployment among hired farm workers means that agricultural wage rates do not reflect the contrast in incomes or earnings, which is presumably much less favourable than the proportion of 74 per cent. shown in table 50. In countries with a high proportion of big farms, such as the United States and the United Kingdom, average income disparities between agriculture and other sectors are likely to be smaller than wage differentials, by reason of the larger incomes earned by the large-scale farmers.
CHAPTER VIII

SUMMARY AND CONCLUSIONS: IMPLICATIONS FOR GOVERNMENT POLICY

Having reviewed recent trends in the movement of labour out of agriculture under widely varying conditions in different countries, and having drawn attention to some of the problems which it raises, there remains to consider its implications for government policy. Clearly it does not lie within the scope of a general survey of this nature to make recommendations for specific measures. It does, however, seem necessary to suggest the types of policy or broad lines of action which appear to be relevant. These suggestions must necessarily be tentative, for from the preceding chapters it is evident that, so far at least as the less developed countries are concerned, the information available is fragmentary. First of all, however, it may be useful to recapitulate briefly the conclusions emerging from the preceding chapters.

THE MOVEMENT OUT OF AGRICULTURE: SUMMARY REVIEW

Lower Farm Incomes as a Push Factor

The main push factor causing workers to leave agriculture is the lower level of incomes. In almost all countries incomes in agriculture are lower than in other sectors of the economy. Wages in agriculture are also, as a rule, below the average level. The difference in wages between agriculture and other occupations is the most significant aspect of the general income contrast, since it influences hired workers and members of farm families in their decision to find other employment.

Expanding Employment Outside Agriculture

The main factor determining the rate of outward movement is the expansion of employment in other occupations. It is this factor which explains the high rates of movement in recent years in the advanced countries (among which Sweden, the United States, and Canada are outstanding) and in rapidly developing countries in Latin America, the Middle East and Africa. Although the push factors of falling incomes and underemployment in agriculture in most of the less developed
countries are now very strong, they do not, in the absence of strong pull factors, suffice to cause large shifts in manpower between occupations. High rates of movement indicate rapid growth and high rates of investment, either in the economy as a whole, including agriculture, or in the industrial or urban sector, as is the case in almost all of the less developed countries which are now in the process of very rapid development.

Correlation between Size of Farm Labour Force and Degree of Economic Development

Broadly speaking, a small proportion of the total labour force in agriculture indicates a high level of economic development. Countries with high standards of living have a low proportion—less than a quarter—of their labour force in agriculture, while countries with low standards have much higher proportions, ranging from one-half to three-quarters of the total. In the advanced countries, gradual transfer of labour out of agriculture into industry and services reflects long-term economic development trends. Growing efficiency in agriculture, achieved through technical progress, the investment of capital and the opening up of new lands, have enabled these countries to satisfy their demand for food with the use of less manpower. Their farm population began to decline in relation to their total population when this total was still small in relation to their land resources. At later dates their agricultural labour force began to decline absolutely, and since 1945 the decline has become more rapid.

In the less developed countries, by contrast, the population in agriculture continues to grow, although in many of them land resources are small in relation to farm population. The high proportion of the labour force in agriculture in these countries need not in itself represent an obstacle to development; what is serious is that, even with this high proportion, most of these countries cannot satisfy the food needs of their rapidly growing populations.

Causes of Movement in Advanced and Less Developed Countries

As between the advanced and the less developed countries, there is a fundamental difference in the underlying causes of the transfer of manpower. Lower levels of income are a universal reason for movement. But different causes operate to reduce the level of incomes in agriculture in relation to other incomes. In the advanced countries labour leaves the land because agriculture is growing in efficiency. Income per head in agriculture tends to fall in relation to incomes in other occupations
because food production increases more rapidly than the demand for food. In the less developed countries, however, incomes from agriculture tend to fall relative to other incomes because (a) population on the land increases more rapidly than food output; (b) new investment is concentrated in industrial production and urban development generally; and (c) the prices of primary products in world markets are falling. These income-depressing factors may operate singly or together. Agriculture is an underprivileged sector of the economy, suffering from a chronic excess of labour and shortage of capital.

Because of this fundamental contrast in the position of agriculture in the economy, the movement of labour in the less developed countries takes place under conditions entirely different from those of the advanced countries, and with different results. Underemployment may shift to the towns and depress urban wages and living standards. Rapid outward movement may take place without stimulating increased investment in agriculture. Labour may oscillate periodically between agriculture and urban employment because neither offers an adequate livelihood for the family.

Favourable Conditions of Movement

Outward movement has generally favourable effects for the migrants, for workers remaining in agriculture, and for industrial workers under certain conditions. These conditions are met when there is full employment; when the shortage of labour in agriculture leads to a rise in wages and incomes and to increased use of machinery and other forms of capital equipment, so that labour productivity rises; and when migrants experience no great difficulty in adjustment to urban life.

Such conditions generally obtain in the advanced countries. The position now is much more favourable than it was, for instance, during the agricultural depression of the 1930s, when workers were dismissed and experienced great difficulty in finding other work by reason of the high proportion of industrial unemployment. There is little evidence of social stress arising from adjustment to urban life, although there may in fact be more than is revealed by the material available. But conditions of life and work in town and country are not so dissimilar as they once were, and it is reasonable to assume that social adjustment is easier.

Unfavourable Conditions of Movement

Conditions of movement are unfavourable when migrants cannot find full or permanent employment, but can obtain only casual or temporary work, or when the movement of labour out of agriculture is not ac-
companied by additional investment in agriculture, so that the income level of those who remain does not improve. A further problem is that of adjustment to urban life. Living conditions in towns may be bad by reason of overcrowding and lack of sanitation, or may be repugnant because of the break with home and family. In some African territories permanent settlement in towns is prohibited, with the result that social integration does not accompany the change of employment. In these cases alternating movement occurs, with deleterious results.

These conditions have been shown to exist in the less developed countries, and although it cannot be asserted, on the basis of the information available, that they are universal, it is evident that they are widespread.

The Low Income Groups within the Farm Population

Although the economic aspects of movement in the advanced and less developed countries are strongly contrasted, there is nonetheless a social aspect which in greater or lesser degree affects both groups of countries. The impact of the powerful economic factors which depress farm incomes is usually felt most severely by the weakest members of the farming community, who cannot move easily into other occupations. The pressures which should induce movement—low earnings and irregular employment—are strongest for groups in an economically and socially underprivileged position. But people who are unskilled, insecure and underemployed find it difficult to get job information, to move to places where employment is growing, and to acquire qualifications for work in other types of employment. This is the crux of the problem of movement out of agriculture, and the reason why the proof of its relationship to economic growth is not a proof of its social benefits.

The underprivileged group in the advanced countries includes mainly hired workers; it may also include small farmers and members of their families in remote or poor regions. In the less developed countries it includes hired workers, and also, as a rule, a large body of tenant farmers or sharecroppers whose position is insecure because they have no rights of ownership or protection under their tenancy or sharecropping agreements, while at the same time they are not fully employed. If prices fall or harvests are bad, or if the fertility of the soil is destroyed by over-cultivation, they must reduce their standard of living.

In addition to low rates of remuneration for labour, these workers suffer from a number of social and institutional disadvantages. They do not share in the benefit of self-employment, in which farmers usually find an advantage counterbalancing low relative incomes. Other drawbacks usually include long and irregular hours of work, unsatisfactory housing
conditions, lack of social services and security, and an inferior social status. Some of these originate in the survival of institutions otherwise outdated, some in a weak bargaining position, while others are due to the neglect of the countryside in social policy.

These groups as a rule can do little to improve their position by collective bargaining, because the supply of labour tends to exceed requirements. They tend to move more rapidly out of agriculture than farmers and constitute the main element in migration because their earnings are below the average in agriculture, so that the wage differential in relation to industry is greater, while their low and insecure social status gives them no inducement to remain on the land. Yet to find other employment may be difficult and even impossible for them.

To the disadvantages of agriculture as an occupation must be added the less privileged position of the rural community in general with regard to social services, particularly education. Although these problems affect all country dwellers, they are more serious obstacles for the lower-paid elements.

**National Policy: Guiding Principles**

Having thus summarised the main points emerging from the foregoing survey, something must now be said about the various types of action relevant to the problems of labour movement. It is clear that for the less developed countries the policy implications must be much wider than for the advanced countries, simply because workers in agriculture constitute the majority of all workers. Measures affecting their income and welfare necessarily affect the economy as a whole, whereas in the advanced countries workers in agriculture are a minority, and in some cases a small minority. Moreover, the advanced countries have introduced policies which determine the place of agriculture in the economy, while in the less developed countries agriculture may lie outside the sphere of policy altogether, or may even have to bear the cost of the development of other sectors.

For the less developed countries, therefore, the policy implications are macro-economic, involving decisions affecting the economy as a whole, while for the advanced countries they imply a stronger emphasis on social needs, within the framework of an existing economic policy.

One broad proposition, however, holds true for both groups of countries. Generally speaking, governments are not directly concerned with the rate of movement and do not aim at encouraging people to leave agriculture. Nor is there any reason why they should do so. Although high rates of movement may be regarded as desirable in so far as they reflect growing efficiency in agriculture and a more economic
distribution of the labour force, mobility in itself cannot be an object of policy. If it is considered that there are too many people in agriculture in a given situation, the question of how to encourage movement outward must inevitably arise, but the object of policy in this case is to increase the efficiency of agricultural production and the opportunities for employment outside agriculture, and not to induce a higher rate of occupational change as such.

Chapters II and III, in particular, have shown that the question of whether there are too many people in agriculture, concerns opinion and arouses controversy even in countries where the agricultural labour force has been declining rapidly. It arises in the United States and in France. In these fortunate situations the standard by which the labour force is considered to be too large is that of the rate of increase of productivity in relation to demand. It is held by some authorities that there are too many people in agriculture because too much food is produced; cutting down the numbers employed, it is assumed, would reduce the volume of production, and less food would be produced at lower cost.

But in the countries with much underemployment in agriculture the need for reducing the agricultural labour force is advocated from a different standpoint—the need for improving agricultural efficiency in order to produce more food. The removal of excess labour from agriculture, it is argued, should not reduce agricultural production, and might increase efficiency by enabling farmers to cultivate units larger than their uneconomically small holdings, thus permitting fuller utilisation of the remaining labour force and raising productivity.

These arguments are, of course, highly controversial in themselves, since methods of estimating the size of the surplus are not properly established. But, where the existence of a surplus is evidenced by heavy underemployment, the need for a reduction in the farm labour force is obvious—as for example, in Italy, where the decrease is not fast enough to reduce underemployment, or in India, where the rate of increase is high, or in Japan, where the agricultural labour force has been stabilised at a much higher level than was formerly maintained.

Clearly it does not lie within the scope of the present study to discuss how far it would be possible or desirable to reduce the agricultural labour force in any of these situations. To do so would necessitate a full analysis of demand and cost conditions, with estimates of future labour requirements in relation to technical progress, or, in the case of the overpopulated countries, of the extent of the existing labour surplus. However, one general assertion can be made as to the type of policy which is likely to be most effective. Assuming that some reduction is considered desirable, the question of how such reduction is to be achieved is really the
question of how far it is possible to create more jobs. This may appear a statement of the obvious; yet it is a principle which in fact is frequently overlooked.

The main argument emerging from this study has been that movement is most beneficial when it results mainly from the pull of increasing employment, and least beneficial when it results mainly from the push of agricultural depression. To aim at making workers change their occupation by reducing farm incomes and wages when the volume of other employment is not increasing may result either in unemployment in agriculture or in movement which will exert a downward pressure on incomes and wages in other sectors. It may also result in overcrowding the service occupations, or in a shift of underemployment to the towns. One major policy implication, therefore, valid for all countries, is that the rate of movement can be influenced most beneficially and effectively by increasing the volume of employment. If governments aim at this objective, movement will follow, and policy need not be concerned with the transfer of labour except in so far as it has undesirable effects.

These undesirable effects arise from the impact of economic pressures on the underprivileged elements. In the less developed countries this impact is more severe than in the advanced countries, and policy implications in the two groups must be considered separately. But one guiding principle is valid for both. The object of policy should be to improve the conditions of movement by reducing the compulsions and improving the possibilities of choice for those who are least able to improve their position.

In considering the application of this principle, the distinction between the "how" and the "why" of movement, which was emphasised in the introduction to the study, is of some relevance. In the advanced countries no problems arise concerning the underlying causes of movement, for where the volume of non-farm employment is growing and the rate of technical progress in agriculture is fast the conditions of movement are generally favourable. But problems may nonetheless arise from the way in which movement takes place, and specifically through its differential effects.

In the less developed countries the problems of movement concern both underlying causes—the position of agriculture as an underprivileged occupation and the downward pressures on incomes—and the methods of movement—the tendency towards alternating migration and the shift of underemployment from country to town. In other words, policy implications are concerned in the advanced countries with the "how," while in the underdeveloped countries both the "how" and the "why" are of equal importance.
POLICY IN ADVANCED COUNTRIES

In the advanced countries, the rapid decline of the labour force in agriculture highlights the differential aspects of movement. Earlier chapters have shown that, although the reduction in the agricultural labour force has been accompanied by beneficial results, the way in which it takes place is not as advantageous as it might be. The employment market is not perfect; people who change their occupations are not merely units of labour, but human beings. They are young and old, skilled and unskilled workers, good and bad farmers—and it is these differences that now give rise to problems of policy.

Three interrelated problems can be distinguished, namely the economic and social disadvantages of hired workers in agriculture; the immobility of the poorer and less efficient farmers; and the social disadvantages of the country dweller.

In considering what types of action may be relevant to these problems, it should be borne in mind that in almost all these countries governments already give much financial assistance to agriculture in various forms, by means of price support, tariff protection and direct subsidies. Tariff protection is, of course, not a new policy; in several western European countries it has been in force for long periods. But financial assistance on its present scale dates from the Second World War. It has been introduced partly because the balance-of-payments situation (in western European countries) necessitated saving food imports and increasing home production, partly because farmers can exert political pressure, and partly because governments are determined that the conditions of the 1930s shall never recur. The belief that farming will become more efficient when prices are low was shown to be false during the Depression, when farmers farmed badly for lack of capital, while recent prosperity has seen a great acceleration of technical progress.

Current government policy has now evolved into a new concept of the place of agriculture in the economy. The relationship of agriculture to the other sectors has been placed on a more stable footing by acceptance of the principle that farmers' incomes should be determined by reference to a fixed standard, such as the level of income in comparable non-agricultural occupations (as in the Netherlands, Sweden and Western Germany). As a corollary to financial aid, the principle that the State should help agriculture to become more efficient has gained acceptance, and in some countries the aid provided is extremely wide in scope, including the rationalisation of farm layouts and the provision of public services such as roads, drainage and storage capacity.
It would, however, be true to say that the social implications of the new concept have not been fully worked out in any country. In particular, the labour force aspect has not been given much consideration. The fact that the labour force is likely to continue to decline does not obviate the need for foresight in improving its conditions and qualifications. As a French economist has pointed out, the blind negative adjustment of the past is no longer tolerable: it is necessary to prepare for the change as an evolutionary process, not merely to endure it; and this means to facilitate movement for the younger generation through training in other occupations, while improving the skill and knowledge of those who remain in agriculture.¹

*The Position of Hired Workers*

So far as the problem of incomes is concerned, the new agricultural policy has benefited farm operators more than hired workers, partly because the farmers have proved more effective advocates of their own interests than the trade unions representing agricultural labourers, and partly because mechanisation has enabled farmers to dispense with hired labour. In several countries farm wages have not risen in proportion to the increase in productivity, although they have risen in relation to wages in other occupations. Other disadvantages, such as poor housing, are still much in evidence, even in countries where the agricultural labour force is shrinking fast. Reduction in numbers does not help to bring these conditions into line with modern living standards.

The question arises as to whether the policy of supporting farmers' incomes does not call for measures to ensure that hired workers benefit to a greater extent from higher productivity. In New Zealand minimum wages are determined by law in relation to the guaranteed prices fixed for dairy products. These provisions were applied first to dairy farming and have since been extended to workers on farms and stations engaged in the commercial production of wool, meat and grain and in horticulture, market gardening and tobacco production.² In Australia the grant of subsidies to dairy farmers raised the question of the standard of living of dairy workers and led to the making of an award governing wages and conditions in dairy farming.³

How far mechanisation of farming has been a cause of the accelerated movement of labour out of agriculture in recent years is a controversial

³ Ibid., p. 62.
question, since without detailed inquiry the extent to which workers are dismissed as redundant cannot be known. The predominance of the younger age groups in migration suggests that dismissal is not the main cause of movement. It seems probable that the effect of mechanisation on movement is mainly indirect; it reduces the demand for labour, so that the reduction of the labour force does not induce farmers to raise wages. However, while mechanisation reduces the demand for farm labour in general, it may at the same time increase the demand for skilled labour. The present wage structure in agriculture in some countries is ill-adapted to meet this demand, and would appear to require revision in order to induce younger workers to remain on the farm. Vocational training schemes for hired workers are also relevant in this connection.

Thus the broad policy implication is that governments should seek to correlate their policies for agricultural production and income with a policy for improvement in the conditions of hired workers in agriculture. The application of this principle may mean the introduction of a wage structure more in accordance with the needs of the skilled worker; improvement in the conditions of employment; better housing; more opportunities for vocational training and greater equality of opportunity in education; and the extension of social security schemes to include farm workers.

**Immobility of Low Income Farmers**

In all of the advanced countries reviewed, with the exception of Denmark, there are sections of the farming community which lag behind the rapid increase in labour productivity, and remain at low income levels by reason of the small size of the farm, old age, remote situation or poor soil. Often these disadvantages are found in conjunction with each other, and they tend to keep farmers immobile. There is little ground for believing that such farmers would be more mobile if the level of farm incomes were lower, since their age and lack of adaptability make it difficult for them to change their employment. Moreover, there is no reason to suppose that they would be more efficient in other occupations.

The dilemma in this case is to hold a balance between the consumers’ interest in higher efficiency and the social necessity of keeping the incomes of these groups at a level considered adequate by modern standards. Several governments, including the United States, the United Kingdom, Sweden and Norway, now give direct aid to these farmers. In the United States the scale of aid has recently been enlarged with
the purpose of enabling them to become more efficient. How difficult this may be is shown by the British experience with grants to marginal farmers, which have kept incomes up to the agricultural wage standard without conspicuously raising productivity; under the recent scheme to widen the scope of such assistance to include all small farmers below certain income ceilings, grants are to be conditional on improvement. Sweden has resolved the dilemma by treating grants to small farmers as a purely social and transitional measure. Direct payments are made to small farmers for the purpose of easing the transition towards "rationalised agriculture", which might otherwise cause hardship to outgoing farmers, even though, as a long-term policy, it will undoubtedly benefit both consumers and producers.

For social reasons such measures of aid appear fully justified. Their purely transitional character does imply, however, that efforts will have to be made to assist the younger generation on such farms to become better farmers, or to gain skill in other occupations through greater facilities for vocational training. Where the scale of immobility and farm poverty is large enough to give rise to regional disparities in productivity, as in France, the size of the problem may exceed the scope of direct aid, and the relevant policies merge with those necessitated by rural devitalisation, considered in the next section.

Social Disadvantages of Country Dwellers

A corollary to the tendency of the older and less adaptable farmers to stay on the land is the higher rate of movement among the younger and better-educated elements, and perhaps among the more enterprising. This negative selection process may give rise to a devitalisation of the countryside—the impoverishment of rural life which sociologists have always branded as the real evil of the rural exodus. Economists are sometimes inclined to dismiss this concern as a romantic fiction, for certainly this impoverishment is imponderable in its effects. Yet neglect of social welfare in the countryside may represent economic loss, through the setting up of chain reactions in which agriculture is deprived of the young manpower needed to raise its level of efficiency.

Social services are now regarded as essential to a rising living standard; their absence or inferiority reinforces the disadvantages of working on the land and the disparity in incomes between rural and urban workers. Young people are likely to feel these disadvantages most acutely.

The disadvantages are most marked in regard to education. Investigations in the United States and the Netherlands have shown that it is the
better educated who migrate, because they are better able to change their occupation. The Netherlands investigation also showed that the educational system tends to equip schoolchildren for urban occupations, so that those who remain on the land are not as well prepared for their own vocation as others, although they may be quite as intelligent. Another facet of this educational bias is that of "vocational degradation" for members of farm families who defer the decision to leave the farm until it is too late to train for another profession. Greater facilities for vocational training might help to avoid the wastage entailed by the movement of young workers who leave agriculture after several years without having attained a higher educational level or acquired sufficient skill to enable them to choose an alternative occupation.

An indispensable accompaniment of this policy should be an improvement in general rural education and its re-orientation, in accordance with the new concept of agriculture in the economy, towards development of the skills required for better farming in the future. In 1960 it is time to consider the needs of the twenty-first century, just as Denmark in 1860 planned its rural education for the needs of the twentieth.

Other social disadvantages are in all probability less significant than they were in the past. The imponderable attractions of the city, so frequently emphasised as a cause of the rural exodus, are now widely found in the suburbanised countryside. Indeed, in the most highly urbanised countries—the United States, the United Kingdom and the Netherlands—the typical problems of urbanisation are created not by the influx of rural workers, but by the exodus of town workers to the surrounding country, giving rise to the phenomenon of "urban overspill" and wastage of manpower in long journeys to work.

The converse cumulative process of rural depopulation and devitalisation operates outside the suburbanised areas. It is not a nationwide problem in any of the countries considered (although in France it is extensive). Where it exists in the extreme form of the dying region it is intractable. Remedies must be sought in the direction of industrial decentralisation. Declining localities are an aspect of town and country planning, rather than of agricultural policy, but the problems of devitalisation will be less acute, and may be avoided, if greater attention is paid to the needs of the younger generation of farmers and farm workers in regard to vocational training and education.

Policy in the Less Developed Countries

In the less developed countries policy implications are far wider, so wide indeed that to discuss them adequately would involve the whole
complex of controversies now known as the "problem of underdevelopment". Moreover, conditions are extremely varied; some countries are developing rapidly, while others are static. Little more can be done than to underline some aspects of migration which seem relevant to policy in many countries.

The high proportion of the labour force in agriculture and its continuing increase suggest that the main object of policy in these countries should be to encourage outward movement, with a view to evolving an occupational structure resembling that of the advanced countries, with agriculture occupying a much smaller share of the total labour force. Accelerated movement is imperative in countries with densely settled and growing farm populations, both from the standpoint of farm efficiency and from that of the efficiency of the labour force in general. But to state the problem of movement in these terms is to ignore some basic differences in the economic position of agriculture in the advanced and in the less developed countries.

These differences were discussed at some length in Chapter VII. The crucial point of difference is that food production in most of these countries does not keep pace with the growth of population. It is shortage of food, not overproduction, that drives people to seek work in cities. Consequently, it is the low productivity of labour in agriculture, and not reduction in numbers, that should receive priority in policy. Since in most of the less developed countries considered in this study, the rate of outward movement is not high enough, and could not be increased sufficiently to reduce the size of the labour force and so create a shortage of labour, the prospect of improving farm productivity by a higher rate of movement is remote. Moreover, although it may be true that the labour force might produce more per head if it were smaller, it does not follow that the reduction will itself lead to any immediate increase in agricultural productivity, in the absence of positive steps to encourage investment.

On the question of how a reduction in the agricultural labour force is likely, in its early stages, to affect agricultural productivity, the evidence provided in this study suggests that there may be no positive relationship at all. Although the foregoing survey has not covered a sufficient range of conditions to be conclusive on this point, it does provide certain indications relating to two countries in course of accelerated industrialisation—Pakistan and Yugoslavia—which have succeeded in checking the increase in the agriculture labour force by absorbing enough of the natural increase to keep the farm population constant or to reduce it.

The case of Pakistan is of particular interest, since like India it suffers from rural overpopulation. Outward movement in recent years would
appear to have been fast enough to prevent the agricultural labour force from increasing. Yet agricultural production has not increased, and output per head is no higher, both because insufficient capital has been invested to keep irrigation systems in order and for other reasons.

Yugoslavia is in a similar, though more favourable position. In the inter-war period it was considered to have a large surplus of farm labour. Since the Second World War new investment has been concentrated in industrial expansion; the new jobs thus created have been sufficient to reduce the farm population to some extent, and also to give rise to alternating movement of manpower. But average annual agricultural production from 1950 to 1957 has remained much below the inter-war level, and food imports have been necessary; thus foreign credits which could have aided investment have been expended on consumption.

In neither country has stabilisation or reduction of the farm labour force improved labour productivity, because capital has been lacking. Since checking the increase of the farm labour force can be regarded as a difficult target for most of the less developed countries, it seems particularly worth emphasising that higher rates of movement cannot in themselves, and without additional investment, be depended upon to raise the level of output per head in agriculture.

The case of Japan may be quoted to make the same point in reverse. Over a long period prior to the Second World War, the farm population remained constant at 14 million, and in spite of the congestion of the land areas Japan achieved rising levels of farm output per head. Since the Second World War, it has kept the farm population stable at 18 million; moreover, land areas are now more congested and farms smaller. It might be supposed that output per head and farm incomes would be lower; but more intensive cultivation, more irrigation and higher prices have in fact resulted in higher levels of output and income. Thus, even with an increase in the size of the labour force and a more adverse man-land ratio, it is possible to increase production and incomes.

Thus the evidence suggests that “taking people off the land” is neither so easy nor so beneficial in practice as it sounds on paper. Movement may achieve only an equilibrium of misery; it may be too slow to reduce rural poverty and pressure on the land, and yet too fast in relation to urban jobs and living conditions; it may result in wastage of manpower and undue stress from the conflicting claims of the means of livelihood on the one hand, and life itself on the other.

In all these cases, migration may be a symptom of economic distress and of unhealthy conditions which need to be remedied. Obviously, it cannot be regarded as desirable to increase the rate of movement under conditions such as these.
Conditions of Development

To argue that more movement of labour is needed to bring about a structure comparable to that of the advanced countries ignores some of the basic differences in the present position of the less developed countries. If the high proportion of the labour force in agriculture in the latter group of countries merely reflected an earlier stage in the same development process that the advanced countries went through in the past century, such an evolution would inevitably take place in the course of time, even if the time were long. But the less developed countries are not simply in an earlier stage of development; they are developing under entirely different conditions, owing in particular to a different demographic background, differences in the process of urbanisation and different farming methods.

Demographic Factors.

Rates of population growth are generally high in the less developed countries by comparison with the advanced countries. Some Latin American countries with extremely high rates of demographic increase are also characterised by a rapid movement of labour out of agriculture, as evidenced by the sharp decrease in agriculture's share of the labour force. This decrease, to be sure, is only relative: actual reduction of the labour force in agriculture would necessitate an even higher rate of movement. On the other hand, such reduction is not necessarily desirable where food is short and land plentiful.

In Asian countries, by contrast, the rate of population increase is not high by the standards of the less developed regions of the world, but densities on the land are high and rates of movement are low, so that the agricultural population increases almost as rapidly as the total. In this situation, to bring about a reduction in the agricultural labour force would require a much higher rate of investment in industry or a reduction in the rate at which the population increases—both matters of long-term policy lying outside the range of the immediately practicable.

Conditions of Urbanisation.

Urbanisation in the less developed countries represents a mass movement of people into very large centres, not necessarily accompanied by full employment. Surveys of Asian cities show that many migrants go into low-paid temporary jobs in overcrowded slums. Latin American data show that the rate of urbanisation exceeds the rate of industrialisation, and that as the cities grow the services sector swells with no corresponding increase in national income. To provide adequate housing
or social services for the influx is possible in only a few of the less developed countries; usually, such provision is neglected, so that urbanisation in most of the less developed areas of the world means slums and shantytowns.

**Inefficient Use of Agricultural Resources.**

Most of the less developed countries are now endeavouring to build up their industries on the foundation of a poor farming economy using inefficient, backward methods, and often involving wastage of land and destruction of soil fertility. In Latin America, not only the economy as a whole, but agriculture itself is unbalanced in that crop production for world markets gets the capital and the new techniques, while food production is neglected. Loss of manpower does not automatically bring about improvements in land use and farming methods: much greater changes—in capital structure, land tenure and soil conservation—are needed before there can be any real advance.

It is for these reasons that it is unrealistic to suggest that government policy in the less developed countries should aim at accelerating movement with the intention of evolving an occupational structure similar to that of the advanced countries. Such an aim may indeed be desirable as the final stage in a long development process, but as an immediate goal it lies far beyond the range of the practicable. Moreover, it confuses the symptoms of economic growth with its causes.

Government policy, paradoxical as this may seem, is more likely to tackle the problem of migration successfully if it is concerned not with increasing the rate of movement, but with the improvement of its conditions. Primarily, this means improving the economic and social position of the agricultural labour force. There is no reason to postpone such improvement until at some remote future date there may be a shortage of agricultural labour. The object should be not to check labour movement, but to raise the level of income at which workers will be prepared to take other work. If farmers and farm workers could produce and earn more, there would still be an outward movement, provided that employment was expanding in other sectors; but migrants could choose between occupations, instead of being forced to leave by necessity.

**Balanced Development Policies**

It has been rightly pointed out that—

... The primary emphasis on economic development in underdeveloped countries ... should not be on the movement of rural labour to alternative occupations or on the acquisition of industrial capital. Rather, the emphasis
should be upon raising the level of the skills of the population and introducing new technology, not always by mere transference from the advanced countries, where economic proportioning of factors is different, but by their development in relation to the country's peculiar needs. Efforts should be made to raise productivity in all phases of the country's economic activities.¹

This statement aptly sums up the conclusions which emerge from the foregoing survey. Since industry is at present the favoured sector in most of the less developed countries, balanced development, for all practical purposes, means giving more assistance and attention to agriculture. To improve the productivity of the land and its workers is necessary in order to raise living standards in town and country, and is also an essential condition of general economic expansion, since many of the less developed countries are now obliged to use their limited foreign exchange reserves to import food instead of industrial equipment and raw materials. The adverse conditions of occupational movement are only one aspect of this central necessity of increasing food production, which in turn raises wider economic issues concerned with the income factors which influence migration. It is quite clear that, in the less developed countries, policies aimed at an upward levelling of incomes in agriculture must be wide in scope and involve decisions affecting the economy as a whole, not merely adjustments in accepted policies, as is the case in the advanced countries. Such measures would normally include direct public support of farm incomes, stabilisation of farm employment and wages, and action to promote public and private investment in agriculture.

Direct Support of Farm Incomes out of Public Funds.

If the other sectors of the economy are too small and poor to make a significant contribution to revenue, such support cannot be granted on a sufficient scale. But this is not universally the case. In rapidly industrialising economies, with heavy investment in the urban sectors, much could undoubtedly be done to increase food production by allocating more revenue to agricultural and rural development, or by subsidising food production directly. Such policies appear to be particularly relevant in countries which are now obliged to use a large proportion of their foreign exchange to pay for food imports.

Stabilisation of Employment and Wages.

Action to safeguard the position of primary producers supplying world markets through price stabilisation schemes requires international

agreement, and in some commodities the obstacles to such agreements are difficult to overcome. Where such schemes are in operation, however, it appears highly desirable that agreements for the stabilisation of prices and output should be linked with the stabilisation of employment and guaranteed minimum wages, to ensure that hired workers benefit from the greater stability of production.

**Allocation of a Larger Proportion of Development Expenditure to Agriculture.**

The neglect of agriculture in planning policy is one of the principal reasons for the low level of investment in agriculture and lack of balance in the economic structure. The belief that industrialisation spells power and prosperity has many origins. Among them is the fact that countries which relied on the export of agricultural produce in the past, above all in the inter-war years, found that this position of dependence on an unstable world economy hindered their industrial development. But now it is the shortage of food which is the bottleneck for industrial expansion, and more investment in agriculture is needed to make industrial development a success.

**Stimulating Private Investment in Agriculture.**

Increasing investment is not simply a matter of devoting more public funds to big projects; it is just as much a question of channelling these funds down to the individual farm, and finding forms of organisation which will bring about savings in many small ways as, for example, through community development or co-operative credit systems. Stress has already been laid on the close attention which the advanced countries devote to this object, and on how they seek continuously to improve their farming structure even though they have reached high levels of output per acre and per man. Co-operation in these countries has been a major long-term factor in the technical, economic, and social advance of agriculture. The reform of the agrarian structure, which is discussed below as a measure of social reform, is also needed to improve farm efficiency, where the land system is a bottleneck for agricultural expansion.

**Agrarian Reform**

One of the chief ways in which the position of the underprivileged groups in agriculture can be improved is agrarian reform. Where land ownership is concentrated in large properties, the underprivileged form a large part of the farm population, suffering from low incomes, under-
employment, lack of security, a low social status and lack of educational opportunities. In addition to hired workers, they include tenant farmers and sharecroppers; often these categories are not distinct, because small cultivators may seek employment as hired workers during the harvest season. They also include the primitive communities of indigenous workers which survive on the margin of the economy, and tend to disintegrate under its pressure. These belts of poverty and insecurity exist throughout the less developed areas of the world; and where they are large, they represent a threat to urban living standards.

While agrarian reform can reduce the size of these underprivileged groups it can rarely eliminate them altogether. Measures to secure a wider distribution of ownership, to make tenants more secure or to settle farmers on new holdings can offer better incomes and greater security to the underprivileged elements, although even through very radical reforms it is rarely possible to offer land to all.

But a wider distribution of ownership can certainly stabilise and increase the volume of farm employment and production, since it allows a fuller employment of the family labour force. Large estate systems in the less developed countries aim at reducing the costs of labour by employing hired workers only at peak seasons, so that for long periods of the year the workers are unemployed. If, however, farm workers are settled on independent holdings they have an incentive to work more regularly: they will tend to diversify cropping and keep livestock so as to spread labour requirements and employ their families; their skill in management and initiative can be developed. Where redistribution of ownership is accompanied by public investment in land improvement or reclamation, the gains in production will be all the greater. Probably the most important prerequisite of successful redistribution of ownership or settlement schemes on new land is a guaranteed market which ensures for the new owner a secure return on his labour and increases the incentive to farm better.

Reforms of this nature are needed in all countries where land is cultivated too extensively in relation to the demand for food, and where land reclamation and improvement can achieve great increases in productivity. In this connection, it should be pointed out that holdings granted to new owners should not be too small. In Mexico, which has carried out the most extensive land redistribution scheme of any country outside Europe, individual holdings allotted to the ejidos in the early stages of the reform were too small, and the land was too poor or too much eroded to offer full employment to the family, with the result that a fairly large proportion of the new farmers still had to seek work
outside their holdings.\(^1\) In the newer settlements, larger holdings and modern methods of cultivation have been introduced.

The scope for such action is wide in most Latin American countries, where it is needed for social reasons, and also to restore the balance between export and food crops. Where land is plentiful, land settlement projects should be designed so as to allocate holdings large enough to offer full employment to the farm family.

Agrarian reform undertaken in Asian countries has consisted of granting ownership of the holding or of offering secure conditions of tenancy to occupying tenant farmers. In such cases there is likely to be no increase in employment, although the incomes of cultivators may improve, and more capital be invested. Hired workers may not be included in the distribution of ownership, and employment may be concentrated in the families of the recipients, resulting in a reduction of employment among the landless.

Part-time farming may also increase as a result of tenure security, where the holding granted is too small to provide full-time work or a sufficient income. This tendency has been noted in Japan, where the traditional combination of farming with other employment has been strengthened by greater security of tenure.

Even where the direct improvement in employment is not large, land reform can be valuable as a means of increasing the satisfactions of village life, through the change in social attitudes. "The last ten years have seen a considerable increase in the sum of human happiness in Japanese villages", writes an authority on the land reform in Japan.\(^2\) Such imponderables should not be forgotten, even though they are by-products of policy and not its main object.

**Social Stress**

There is enough evidence to suggest that the effects of migration into cities involve social stress and tension on a scale unknown in the advanced countries. In North America or western Europe, leaving the land under present-day conditions may mean no more than a change of job. But in the chiefly agricultural continents movement to the city may mean a complete uprooting and a break with family, neighbours, custom and even religion. The gulf between town and country may be a gulf between two worlds.

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The change may involve an improvement in welfare. That rural people value the advantages of education and better health conditions available in towns is shown by the survey of conditions in Venezuela referred to in Chapter VI. Where the institutional framework of the village is rigid and oppressive, city life with its more egalitarian social attitudes may represent a form of liberation.

But examples of severe social stress may also be quoted. One extreme case is that of migrant workers in Africa south of the Sahara: even though migration brings economic gains, the conditions of urban life offer no prospect of social integration, while tribal obligations are still felt (even though the tribal structure is disintegrating). Difficulties of adjustment are also strongly felt where the economic gains are small and precarious and where social conditions in the city are no better than they are in the village. From the studies of urbanisation in India referred to in Chapter V, it is evident that rural workers moving to the towns experience no benefit as to health and education; according to the Delhi survey, indeed, health conditions in the city are actually worse than in the villages. Rural migrants leave their traditional environment unwillingly and struggle to maintain contact with it by periodic return. In Brazil stress is revealed in the extraordinary frequency of physical and mental maladjustment found among industrial workers.

One common habit of thought in regard to these social stresses is to accept them as inevitable consequences of the new "industrial revolution", as if all developing countries and groups of individuals today must necessarily experience the same difficulties of adjustment as were experienced by today's advanced countries over a century ago. This way of thinking can be an obstacle to changes in policy, thanks to which some of the worst effects of economic change could certainly be avoided. Moreover, it overlooks the fact that the apparatus of the modern State has been evolved to deal with such social problems.

Social stress is most evident in alternating movement, aggravating the wastage of manpower which this type of migration entails. It should be emphasised that such movement, where it is a chronic and not a transient condition, gives rise to the most serious problems of any considered in this study, and that its existence is in no sense a necessity of industrial development. It arises from the failure of agriculture to provide a livelihood and the failure of industry to provide adequate living and working conditions for its employees. It is therefore, in essence, a social problem which can be solved by measures of social reform. Such measures may include, for example, the removal of prohibitions on permanent urban residence, where these are enforced; provision of better housing and social services in urban centres; resettlement of farm people
on better land; decentralisation of industry into smaller towns; and
the reform of land tenure, where the disintegration of tribal systems has
led to the collapse or degeneration of communal cultivation and owner­
ship. Measures of different kinds will be needed in different settings
because lack of balance in the employment market has different causes;
but, provided that action is taken on both fronts—in agriculture and in
industry (as well as in urban employment generally)—the problem need
not prove insuperable.

* * *

To recapitulate, the main objective of policy in advanced and less
developed countries alike should not be to encourage or discourage
migration as such, but to improve its conditions. If it is considered desir­
able to encourage a higher rate of outward movement, in order to improve
agricultural efficiency, the most effective and beneficial method is to in­
crease employment in other occupations, and to direct new industries
towards regions where the rate of movement is too low.

The guiding principle of policy should be to improve the possibilities
of choice between occupations, and to reduce the compulsions which
are felt most severely by the underprivileged groups. This principle has a
different application in different settings. In advanced countries it
means, primarily, improvement in the incomes and living conditions
of hired workers. For farm people in general, it means greater opportu­
nities for vocational training and general education, both to ensure a
more positive selection for recruitment into the agricultural labour force
and to help migrants to gain higher qualifications for other work.

In the less developed countries, where the agricultural labour force is
growing and agriculture is an underprivileged occupation, the applica­
tion of this principle primarily implies policies to raise farm incomes,
either through increased investment in agriculture or by other means, in
order to lessen the compulsion resulting from the push of low produc­
tivity. In addition to this general necessity for balanced development,
measures are needed to assist the underprivileged groups within the
agricultural community. Of these, agrarian reform is the most important,
accompanied by the organisation of co-operative or community develop­
ment, aimed at increasing investment and employment and providing a
stronger social and economic basis for the life of the countryside.
International Standard Classification of Occupations

The International Standard Classification of Occupations has been developed by the International Labour Office to provide a basis for the international comparison of occupational data, to afford guidance to countries wishing to develop or improve their systems of occupational classification and to serve as a means of identifying specific national occupations of international interest. It is the result of a number of years of work by the International Labour Office, which has at every stage systematically consulted the governments and interested agencies and sought the counsel of occupational specialists throughout the world.

In particular, its preparation was actively assisted by the International Conferences of Labour Statisticians, which meet under the auspices of the International Labour Organisation. In 1949 the Seventh Conference recognised nine "major groups" of occupations; these, with certain modifications, constitute the basic framework of the present system. The Eighth Conference (1954) adopted a provisional list of minor groups. Three years later the Ninth Conference endorsed the major, minor and unit groups of the present system and urged countries to make occupational information available in conformity with the resulting classification.

The classification has been designed as a comprehensive, multi-purpose instrument for use in the organisation of occupational information. It is composed of definitions of occupations and of groups of occupations embodied in a corresponding classification structure with code numbers. The classification was designed with a twofold aim in view; its general groupings are intended to facilitate the classification of statistics derived from labour force inquiries, particularly population censuses, while the final subdivisions are calculated to meet the requirements of employment placement for a more detailed classification. Some 1,600 occupational titles are defined.

In addition to the text of the classification with definitions, there is a list of titles by groups and also an alphabetical index of the titles used.

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