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SOME PROBLEMS OF ECONOMIC MEASUREMENT:

NATIONAL INCOME AND CAPITAL

LABOUR AND ITS DISTRIBUTION

NATURAL RESOURCES

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CHAPTER II

SOME PROBLEMS OF ECONOMIC MEASUREMENT: NATIONAL INCOME AND CAPITAL

In the first chapter we referred briefly to economic statistics in underdeveloped countries. In the present chapter we give more detailed consideration to the problems of measurement of the important economic magnitudes of income and capital. These two concepts are frequently encountered in modern economic analysis, and estimates of the relevant magnitudes for particular economies often figure in discussions of policy measures. In Chapter III we take further examples to illustrate the conceptual and practical difficulties of economic measurement; these are drawn from the field of labour statistics. Several facets of economic life in many underdeveloped countries are examined in the course of the discussion of problems of quantification.

1. THE NATIONAL INCOME AND ITS MEASUREMENT

The calculation of the national income in any country is surrounded by conceptual and practical difficulties even if the country has well-developed statistical services and sources of information.¹ The appropriate treatment (that is inclusion or exclusion) of entire classes and categories of goods and services is often a matter of doubt, admitting of no unambiguous answer; and the need to express the flow of goods and services in money terms presents additional problems. The inclusion or exclusion of certain items and the selection of the basis for valuation

¹ There is a large literature on the definition and measurement of the national income. Those most helpful include J. R. Hicks, *The Social Framework*, 2nd ed., Oxford, 1952; J. R. N. Stone, 'Definition and Measurement of the National Income and Related Totals', in *Measurement of National Income and the Construction of Social Accounts*, United Nations, Geneva, 1947; H. C. Edey and A. T. Peacock, *National Income and Social Accounting*, London, 1954; and A. R. Prest and I. G. Stewart, *The National Income of Nigeria, 1950-51*, London, 1953.

involve choices which are often necessarily arbitrary. Thus it is the usual practice to exclude the services rendered by a person to himself or to members of his family but to include the goods produced and consumed within the family circle. Again, it is the common but debatable procedure to value farm produce consumed by the farmer and his family at its realisable value ex-farm, and not at its retail value.

There are even more acute difficulties in distinguishing in borderline instances between payments for services (to be included) and payments which reflect mere transfers of income between individuals or between individuals and government. Serious problems of definition and measurement also arise because it is difficult to distinguish between final and intermediate goods and services, that is, to decide whether a particular type of commodity should be considered part of the net flow of goods and services produced or part of the necessary cost of producing that flow. A significant proportion of the flow of goods and services conventionally included in calculations of the national income is quite as much part of the cost of producing the national income as of the national income itself. While the difficulties apply to many of the component elements of the national income, they are especially acute in the treatment of government services, and expert opinion is divided on the question of the extent to which government services should be included in the net national income. There are further problems in the treatment of government services because they are not usually bought and sold in markets but are paid for out of the proceeds of taxation imposed by government; there are no market prices at which they can be valued to measure the intensity of demand for them.

In every calculation or estimate of the national income decisions must be made on each of several points on which there are differences of opinion stemming from conceptual and practical difficulties. There is no simple and unambiguously correct course to follow; decisions are

necessarily a matter of preference or convenience, and hence are arbitrary. This gives rise to the possibility that national income computations for different countries may not be based on identical definitions or on identical treatment of economically similar items. Moreover, even if estimates for a number of countries are standardised in the sense that different categories of goods and services are treated similarly, it does not follow that they are strictly comparable; for example, uniformity of treatment may go hand in hand with non-comparability and unconscious bias if the categories of services which are excluded uniformly are relatively more important in some countries than in others or in some stages of development than in others. The quest for uniformity of treatment to yield strictly comparable results is inherently self-defeating where the organisation of production and consumption is essentially different in the countries in question.

The difficulties of placing estimates on a strictly comparable basis and of avoiding bias are probably quite minor when comparisons of national income estimates are made between advanced economies, for example, the leading industrial countries. But even these comparisons are often much affected by differences in the magnitude and content of government expenditure, and by the arbitrariness of the distinction between final and intermediate goods. Moreover, in international income comparisons problems are posed by the need to translate the basic statistics, which are expressed in different national currencies, into a common currency.

The sources of bias and the obstacles in the way of achieving comparability are more significant when comparisons are made between estimates for under-developed economies and those for more advanced economies. This is so because the categories of items which present difficulties differ in their relative importance in poor and in rich countries. On balance it is almost certain that these categories are generally more important in poor countries. This is true of services produced for consumption by

producers and their families, of expenditures which are difficult to classify unequivocally either as payments for services or as transfers of income, and of goods produced and consumed in the subsistence sector of the economy. However, it may be that those types of goods and services, the allocation of which between final and intermediate goods is especially difficult, are relatively more important in richer countries.

The exclusion of intra-family services from calculations of the national income affects international comparisons markedly. In many under-developed countries the concept of the family is much wider than in the West; other things being the same this means that services produced by members of the so-called extended family or family group for consumption within the family occupy a more important place in economic activity. Moreover, whereas the intra-family performance of services in the West are predominantly of a non-commercial character and therefore may be left out of account with more reason, many of the transactions between members of the so-called extended family in parts of Africa do not differ in character from business dealings with outsiders in the market. For example, in West Africa women's services to the rest of the family are often paid for; their earnings from some activities cannot be touched by other members of the family, and wives often sue their husbands for debt arising from intra-family transactions. Again, services rendered by an individual for his own use, or for use within the family circle in the more restricted sense of the term, also tend to be relatively more important in under-developed than in economically advanced countries or regions.¹

¹ But we show in the next chapter that people in richer countries are apt to provide for themselves certain categories of services which are bought and sold in poorer countries. In practice, however, the statistician may find it difficult to collect reliable data on the volume or value of these services in under-developed countries.

We have already noted that the distinction between transfer payments and payments for services is often difficult to draw. Here again in under-developed countries the amount and range of activities and transactions affected are relatively more important than in the West, and the conceptual problems raised are more acute. Not only does a much wider range of economic activity take place within the family or clan, but there are also multifarious obligations or payments between members, sometimes unaccompanied by the rendering of any service but often in return for nominal or small services the value of which is not related directly to the payment. This lack of correspondence between service and payment applies also to payments and donations to chiefs, priests and so on. There are whole classes of people in some countries the bulk of whose income is on the shadowy borderline dividing receipts for services rendered from receipts from unilateral transfers. Gratuities are a significant part of the income of lower-paid government servants, minor chiefs and so on in many under-developed countries. The position of beggars, a numerous class in many under-developed countries, deserves a passing mention. Beggary is often a distinct occupation, entry into which may be restricted to certain persons; as is well known, it is sometimes, as in parts of India, reserved for certain clearly defined groups. To confuse the picture still more, beggars often perform some economic activity; in some Middle Eastern countries they sort and clean the food given to them and re-sell it as food or feedingstuffs.

⌈ We have noted that it is the convention to include the value of subsistence production of commodities in calculations of the national income. This gives rise to two difficulties: statistics of the output of food and other goods which do not reach the market may be inadequate and inaccurate, and the valuation of commodities which are not bought and sold ⌋ poses special problems. These difficulties complicate the work of economic statisticians in advanced countries; in under-developed areas they are far

more serious. Subsistence production particularly of food is relatively more important; many under-developed countries have only in recent decades begun to be drawn into the orbit of a money economy. The subsistence sector is still important in most under-developed countries. Moreover, the statistics of the volume of this production are generally very imperfect.

In the valuation of subsistence production the choice lies essentially between prices at the farm and prices paid by consumers in the retail market. A case can be made for each of the bases, and naturally the value imputed to the output depends upon the particular choice which is made. The difference is not likely to be significant when the difference between ex-farm and retail prices is comparatively small. In under-developed countries these differences are generally wide because of poor communications. The narrowness of markets in under-developed countries is also reflected in wider price fluctuations within a season and between seasons, as well as in larger regional price differences; it may be difficult for the computer to arrive at a typical price, let alone at an appropriate price for his purposes. In view of all the complexities, it is not surprising to find that a calculation of the national income of Northern Rhodesia is qualified by the statement that 'the figures for subsistence output in the national accounts are purely token figures and it is important to remember that a revised scheme of evaluation would alter the results radically'.¹

The preceding discussion, which is not intended to be exhaustive, should serve to show that the element of conjecture is far greater in national income calculations for under-developed than for advanced economies, and that differences in economic features make it difficult to place national income calculations on a strictly comparable basis. It is probable that the conventions used in the calculation of the national income

¹ Phyllis Deane, Colonial Social Accounting, Cambridge, 1953, p. 129.

overstate the rate of growth of real income in a backward country experiencing economic development; this is so mainly because the subsistence sector generally diminishes and occupational specialisation and exchange increase. Thus with economic development many of the services previously performed by individuals or families for themselves are bought increasingly in the market from specialised individuals or firms. As the output bought from outside sources is always included in the national income, while services produced in the subsistence sector are generally excluded or included only in part, the transfer of activities from the subsistence to the exchange sector leads to an increase in the national income as calculated which is bound to overstate the net increase in activity or in the value of the output.¹ For the same reasons national income estimates almost certainly overstate differences between the levels of real income in advanced and in under-developed countries. The tendency for the extended family to shrink with economic development, changes in social structure and habits, and increased urbanisation work in the

¹ The omission of certain services, however, does not necessarily affect the accuracy of an estimate of the (net) national income. The omission is unimportant where the service is used in the production of other goods or services which are included in the estimate; the value of the intermediate service is then included in the value of the final product, provided the proper basis of valuation is used. Thus it does not matter if the marketing service performed by a farmer who markets his own crops is not included separately, provided the value of the output is based on its value at the point at which he markets it. This is also true of similar services performed by other members of the household, even where, as is sometimes the case, specific payments are made for them. A practical difficulty is that not all farmers undertake marketing operations to the same extent, so that a uniform basis for valuing output is not appropriate, and any other basis is impracticable. The exclusion of other services which are not intermediate services does, of course, mean an understatement of the national income. As we have explained, the distinction between intermediate and final goods (or services) often presents difficulties.

same direction. Comparisons of the national incomes of different under-developed countries are also affected by these difficulties.¹ The relative importance of the subsistence sector and the nature and extent of intra-family services may be quite different in countries which may seem to be in roughly the same category. Improvements in statistical services and sources also tend to exaggerate the improvement in real incomes which accompanies the development of an economy. Additional sectors of the economy and additional types of activity come under statistical review, and, with better and more reliable sources of information, the statistician is likely to be less conservative in his estimates.²

In international comparisons of national incomes it is necessary to employ conversion rates between national currencies in order to place ~~the~~ the estimates on a common currency basis. The rates of exchange generally used for this purpose reflect the purchasing power of the individual currencies over internationally traded goods and services; transactions in these goods and services affect the balance of payments and hence the rates of exchange.³ The use of these rates neglects the relative purchasing power of different national currencies over commodities and services not entering international trade. This is an important issue because of the large volume of goods and services (especially the latter) which does not enter into international trade. As it is likely that these goods and services are relatively cheaper (that is, relatively to the

¹ Some important problems of the concept and meaning of the national income in different societies are discussed in S. H. Frankel, *The Economic Impact on Under-developed Societies*, Oxford, 1953, especially Chapter III.

² The discussion in the text refers to some factors which tend to overstate the increase in the national income of a growing economy. On the other hand national income calculations do not include certain categories of economic improvement stemming from economic growth. Perhaps the most important examples relate to the growth of population, and they are considered briefly in Chapter V, section 2.

³ If some exchange rates are pegged by means of exchange controls, they obviously cannot serve as reliable bases for international comparisons of real national income.

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prices of internationally-traded goods) in poorer than in richer countries,¹ rates of exchange tend to understate the relative purchasing power of money in under-developed countries; if used for purposes of placing national income estimates on a common basis, they therefore tend to understate the real national incomes of these countries in comparison with those of richer countries.

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The foregoing recital of the hazards of national income estimates should not obscure the fact that differences in the standard of living of the poor and the rich countries are real enough; but it should be borne in mind that national income estimates give a spurious definition to these differences. The estimates should be treated with much reserve and comparisons should not be pressed too far, particularly when they purport to refer to differences between countries with different social and economic institutions or at different stages of economic development.

¹ This may be explained as follows. Little or no capital is required in the production of many goods and, more particularly, services not entering into international trade. Capital is scarcer, relatively to labour, in poor than in rich countries. Hence labour-intensive goods and services are cheaper (relatively to capital-intensive goods and services) in poor than in rich countries. The disparity persists because many labour-intensive goods and services (notably personal services not embodied in goods) cannot be exported. (It helps to explain why visitors to under-developed countries are apt to find services uncommonly cheap.) This is an apparent contradiction to the classical theory of international trade, which would suggest that the lower wages would be matched by correspondingly lower efficiency. But there need be no lower efficiency in the production of personal services. This is quite compatible with lower efficiency in the production of capital-intensive goods, which by itself would be sufficient to account for the postulated relative scarcity of capital even if there were no restrictions on the international movement of capital. The relative cheapness of some personal services persists because of the cost of, and the barriers to, migration. Of course, some personal services are relatively more expensive, e.g. where a long period of training is required; but this does not affect the main conclusion, since quantitatively they are less important.

The arbitrary elements in national income calculations do not invalidate their use in under-developed countries. When their limitations are realised, the calculations can be useful. They can indicate the importance of the money sector and the rate and direction of change. Again, estimates of the prospective flows of income in the money sector can at times be made with reasonable accuracy, and they can be set against estimates of the prospective flow of goods and services, and thus indicate broadly the likelihood of inflationary or deflationary pressures in that sector. In the sphere of public finance more narrowly defined the estimates also have their use, especially in assessing the level and burden of taxation generally and in different regions or for different groups within a country.

2. THE MEASUREMENT OF CAPITAL

By capital is meant the accumulated stock of resources which contributes to a larger flow of goods and services through time, or which serves as a reserve sustaining a higher level of consumption at a time of more urgent demand or need than would otherwise be possible. The value of a stock of capital necessarily derives from the future output of goods or services or the delayed consumption which it makes possible. An attempt to measure the amount of capital in an economy involves an assessment of the present sum which is regarded as equivalent in value to the future flow of goods or services or the delayed consumption which capital assets make possible. In principle the process involves the forecasting of the magnitude of the flow of future goods and services and of the values of these goods and services, and their summation in terms of present values by a process of discounting. The calculation is unavoidably subjective and based on highly conjectural forecasts of the physical productivity of capital assets in facilitating the output of goods and services in coming years, and of the prices they will command when they are enjoyed; it also requires the use of a rate or rates of interest for translating future values into present ones. It follows

that any estimate of capital is neither simple nor objective; this is so even if a large volume of statistical data is available on the number and age of specific assets or on the expenditures of governments, firms and individuals on capital account.

It may be thought that the difficulties of estimating the value of future flows of goods and services in calculating the magnitude of capital accumulations can be avoided by working instead from the cost of assets. This may appear to give a more solid basis for the calculation. But the apparently greater objectivity in the calculation may be largely illusory. In the case of assets with long lives, such as roads, bridges and many types of machinery, it is necessary to estimate the length of their prospective useful lives, which is in large measure conjectural.

But more serious drawbacks attach to the cost basis for measuring capital. Investment involves the commitment of money or effort for a more or less specific purpose over a period of time in conditions of uncertainty about prospective supply and demand. A given investment which seemed justified and profitable at the moment when it was made may turn out to be mistaken if expectations about supply and demand conditions are falsified. Conversely, improvements in market conditions may raise the value of capital assets far above their costs. The equation of cost and value may seem to give the economic statistician a firmer footing, but to the extent that it does so it takes the calculation further away from the economic reality of the situation. The procedure is in principle capable of yielding exact results only in a stationary state, that is, an economy in which population, preferences and methods of production remain unchanged. It is incapable of yielding exact results in the world as we know it, in which one of the few certainties is the fact of change, largely unpredictable change.

The difficulties of valuation are inherent whether the calculation of capital refers to an economically advanced or to a backward economy.

Further problems arise in determining which categories of assets are to be included in the stock of capital and which are to be excluded. In principle any asset which is capable of yielding benefits in a future period or periods forms part of the capital stock; in practice it is necessary to draw a line between included and excluded categories to make statistical enumeration at all feasible. These difficulties of classification are also present in attempts to measure the gross capital formation in a period, that is the value of current output added to the stock of capital;¹ for it is the essence of this measurement to identify those expenditures and activities during the period which issue in new capital assets or in improvements to existing ones. The line of demarcation is necessarily arbitrary between included and excluded items, and the choice is dictated largely by considerations of statistical convenience and the accessibility of data.²

¹ The problem of valuation is also serious in the estimation of net capital formation, because it is necessary to estimate the loss in value of existing assets. The difficulties of valuation are less serious in the measurement of gross capital formation, because the outlay on a new asset acquired during a period, say, of a year, generally provides a fairly close approximation to its value at the end of the period. Cost as a basis of valuation becomes progressively less reliable the longer is the period between the acquisition of the asset and the date of the valuation.

² Some of the difficulties of deciding where to draw the line are illustrated in the following quotation from A.R. Prest and I.G. Stewart, *op. cit.*, p.18: 'Is there not a strong case for regarding education expenditure in Nigeria as a form of capital investment? Is not the expenditure on the studies necessary to obtain a degree in Birmingham just as much a capital asset, both to the individual and to the country, as the purchase of a machine from Birmingham? This is a very real choice for Nigeria and obviously the pace of one of these forms of "investment" will be regulated by the other; more degrees will mean less machines, and vice versa. Despite a good deal of sympathy with this view, we decided not to include education expenditure in our formal estimates of capital expenditure. The major reason for this decision was that once one leaves the terra firma of material capital and branches out into the upper aether of human capital there is endless difficulty in finding a resting place.'

The composition and content of capital is not the same everywhere, and what is properly regarded as capital depends significantly on the social and economic context. The validity of international comparisons of capital and of rates of accumulation is much affected by these differences. Distinctions between capital and consumption expenditure valid in the circumstances of one country may seriously mislead if applied to another country.

The types of assets which the people in a country regard as necessary or useful for facilitating future production or for helping to cope with emergencies depend largely upon their techniques of production and their social habits. These are naturally not the same in rich and in poor countries. Conventions which may give satisfactory results in one case need not be appropriate in another; this can be illustrated by the treatment of durable consumer goods and simple farming or household tools in statistical calculations of capital. In advanced countries expenditures on acquiring such assets are usually counted as consumption expenditures, and this treatment has much to commend it on grounds of practical convenience. But in under-developed countries they may be better regarded as capital expenditures. Household or personal durable goods are often put to commercial or near-commercial use. Bicycles are often used as taxis for carrying people or for the collection and delivery of goods even over long distances. Moreover, assets tend to be kept in use for longer periods by having labour lavished on them for repairs. Similar considerations also apply to textiles in some under-developed countries. They too are bought with the fruit of much time and toil, and they are kept in use longer than in countries with higher per capita incomes; they often serve as an emergency reserve or as a form of saving, for which functions they are not required in countries with well-developed banking and other financial institutions. Again, certain durable goods which still have useful life in them may be destroyed in an act of conspicuous

consumption. The best known example of this is the pot-latches of certain Indian tribes; in a somewhat spectacular way these demonstrate both the problems of defining capital and the relevance of the social context.

Livestock and especially cattle constitute an important category of capital asset in many under-developed areas. In advanced countries livestock is simply a form of agricultural capital, and is among the most important forms or parts of agricultural capital; but its significance in many under-developed countries is very different, and its role is not the same in all of them. In some of these countries also cattle may provide a source of meat or be used as draught animals. In Argentina and Uruguay, for example, animal husbandry is practised at an advanced level and is a mainstay of their economies. In China pigs and poultry make a material contribution to the food supplies of a vast population. But in some countries cattle are frequently kept mainly as a source of social distinction or of aesthetic pleasure, or are maintained as the object of religious veneration. Their valuation as a form of capital in these circumstances raises nice questions of concept and measurement. For instance, how should the huge cattle population of India be valued, bearing in mind that a large proportion of the total has a negative productivity in the sense that it consumes more than it adds to the value of agricultural output? The accumulation of cattle largely to achieve social distinction or to discharge obligations (for example, to pay the bride-price) in parts of Africa poses similar questions for the economic statistician. Such an interest in numbers rather than in quality gives rise to a quasi-Malthusian situation in which the cattle population grows to the limit of the carrying capacity of the land unless checked by natural calamities such as disease. More serious than the statistical difficulties, of course, is the tendency towards soil erosion and deterioration of pasture, and the conflicts that arise when traditional values, social institutions and social relationship begin to give way with the

growth of a money and market economy.

This discussion, which is not meant to be exhaustive, should make it clear that calculations of capital and of rates of capital accumulation are necessarily arbitrary and based on a series of estimates and assumptions. In practice there are also gaps in the statistical material which, if it were more adequate, would at least simplify the task of the economic statistician. Of course the deficiencies are generally greater in poor countries. This is only partly because statistical services in these countries tend to be less developed. The gaps are also more numerous because in under-developed countries important categories of capital are in forms for which it would be difficult to have reliable data even in countries with comprehensive statistical services.

3. DIRECT INVESTMENT IN AGRICULTURE

We now turn to an issue of much practical importance which illustrates some of the problems discussed in the preceding section. In the conventional estimates of capital resources and of capital formation in under-developed countries the results of the expenditure of time, effort and money in the creation, extension, improvement and upkeep of agricultural holdings are often disregarded. This seems to be the common practice in dealing both with holdings producing for the subsistence sector and local markets and with those producing cash crops for export markets. This omission is serious.

In under-developed countries agriculture plays a large part in total activity and output, and in many of them much effort is spent on the establishment, extension and improvement of agricultural holdings. Much of the effort and resources devoted to these ends does not yield a return in the form of an increase in output until several years after it has been expended. The millions of acres of smallholdings under rubber, cocoa, kola nuts, cotton, rice, groundnuts and millet are obvious examples of investments (large-scale in total) made by peasants in the expectation of

profitable returns which often occur only several seasons later or extend over a number of seasons. The failure to include this form of investment in estimates of capital formation is no doubt partly responsible for the erroneous notion that the indigenous population of under-developed countries, such as the Africans peasant or the Malay smallholder, are unable and unwilling to take a long view in economic matters.

Disregard of investment of effort and resources by individual cultivators in agricultural capital must in these societies give gravely misleading statistical results. The reason for the neglect may be the fact that much agricultural production is subsistence production which is often for no good reason not regarded as economic activity at all. Or it may reflect the contemporary habit of regarding economic development as synonymous with industrialisation, which diverts attention from the non-industrial sectors. Moreover, there can be little doubt that the statistical and conceptual difficulties of attempting to isolate and measure capital-forming activities in agriculture, and particularly in agriculture producing crops for local consumption, are likely to discourage even those observers who are aware of the importance of investment in peasant holdings. One example of the difficulties may be mentioned. Very different results would be obtained if one valued, say, the cocoa acreage in the Gold Coast, the rubber smallholdings in Sumatra, or the padi fields of South-east Asia on the basis of the cost of establishing the holdings rather than on the basis of the discounted value of the net returns yielded by the investment. Moreover, either basis involves the computer in estimates: in the former case the main element of cost may not be money outlays but opportunities for more immediate returns or for leisure forgone; in the latter case the usual estimates of physical yields, future prices and discount rates have to be made.

These difficulties may incline statisticians to the easy way out, that is to disregard the awkward items altogether. But this means that

support is given to superficial and erroneous views about capital formation in under-developed territories and particularly in their farming areas. The calculations are particularly misleading when estimates of capital formation are related to estimates of the national income in the form of a ratio. The estimates of capital and capital formation exclude important investments while the national income statistics include estimates of the value of the annual returns derived from these excluded investments. The capital-income ratio is therefore lower than the facts warrant, and conclusions drawn from these ratios need to be treated with scepticism. The misleading nature of the estimates can be illustrated in another way. If the mass of peasant holdings, aggregated, were in the hands of plantation companies, then the investment would almost certainly be included in estimates of capital formation. For instance, the expenditure incurred by British, Dutch and French plantation companies in the establishment of rubber estates is included in the foreign investment of these countries. But the establishment of rubber smallholdings is not generally included in estimates of capital formation in South-east Asian territories. It is also anomalous that the expenditure on a government-sponsored agricultural scheme, like the groundnut scheme in East Africa, is treated as capital formation even if the results of the scheme fall far short of the original budget, while the expenditures in effort and money of peasant producers in extending areas under cultivation are excluded even though they make possible a rise in the standard of living or enable larger populations to be sustained. The statistical omission of capital formation in peasant agriculture is particularly unfortunate in that the development of the production of cash crops is a vital element in economic development, and is generally a necessary prerequisite for, or concomitant of, urbanisation and industrialisation.

CHAPTER III

SOME PROBLEMS OF ECONOMIC MEASUREMENT:

LABOUR AND ITS DISTRIBUTION

1. MEASUREMENT OF THE LABOUR FORCE

There are many obstacles in the way of measuring the occupied or employed population or labour force in many under-developed countries. This is not merely a matter of the inadequacy or absence of basic statistical data the availability of which is taken for granted in the more advanced countries. The identification, and hence the enumeration, of the gainfully employed population is a difficult task where large parts of the economy are not fully drawn into the money and exchange system and where subsistence production is widespread. In subsistence agriculture in particular, as well as in many other farming pursuits, the demands on labour vary greatly with the seasons. Labour which appears to be idle during one season may be indispensable at times of planting or harvesting. There is thus a large element of part-time or seasonal employment which complicates the definition and measurement of the employed labour force. The important contributions to economic activities by wives and children, again often on a part-time or discontinuous basis, raise further difficulties if one attempts to define employment meaningfully, and to gather statistics consonant with the selected definition.

It follows that it is not easy to measure the volume of involuntary unemployment in a backward economy, or to estimate accurately the number of people whose removal from the areas would not lead to any reduction in agricultural output. We have noted that the labour required for farming operations varies markedly from one time of year to another. Labour which seems to be performing no economic function during some months may in effect be supplying the service of availability; a machine is not necessarily redundant if it is not used in production all the time.

Agricultural production in some cases may be greatly reduced if the necessary supply is not on hand in times of peak demand for labour. It may, of course, be true that an economic system in which agriculture relies on a pool of partly-employed labour is less productive than one in which it uses the available labour regularly throughout the year. But it may nevertheless be the most economically efficient system in many circumstances, particularly where there are few alternative opportunities for the employment of labour. As a corollary, the emergence of alternative opportunities may require reorganisation of farming operations, possibly with a reduction of agricultural output at least in the period of transition.

Moreover, in the complex and (to a foreigner) unfamiliar economic and social structure of many under-developed countries it may be difficult to appreciate the economic contribution that an apparently idle or redundant individual may be making to the family or community of which he is a member. It may also be very difficult to distinguish the involuntary idle from those with a strong preference for leisure, for a subsistence way of life, or for casual or intermittent employment. In sum, one must be cautious of estimates purporting to show the number of unemployed in these countries and of specific plans based implicitly or explicitly on such estimates. This does not imply that there are not in fact large numbers of involuntary unemployed in certain under-developed countries or that nothing can or should be done about them. We shall return to the economic aspects of these matters in several parts of this book. But it is well to remember that here, as in other connections, statistical concepts and categories which are valid and useful in certain contexts may be inappropriate and misleading in other settings.

2. STATISTICS OF OCCUPATIONAL DISTRIBUTION

The same general conclusion applies to statistics showing the occupational distribution of the labour force, which are sometimes summarised

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to show the proportions of the total engaged in each of three main categories of primary, secondary and tertiary employment. (Broadly, primary generally includes agricultural production, secondary covers manufacture and mining, and tertiary the balance consisting mainly of the production of services such as trading, transport and personal services.) The statistics which have been compiled generally indicate that in under-developed countries the great bulk of employment is in primary production, with very small percentages in the other two categories.

Statistics of the occupational composition of the labour force are meaningful and useful in economies in which labour is specialised. In these economies the worker is engaged fulltime in his listed occupation, and also he does not normally change from one occupation to another. To describe a man as a welder gives a useful picture of the type of contribution he can make to production and which, when employed, he does make. In a specialised economy the economic activities of a welder outside his trade are likely to be small, and their neglect unimportant.¹ However, the meaning and economic significance of occupational statistics are much affected when occupational specialisation is imperfect and when large numbers of people can and do move easily from one type of activity to another. The imperfect specialisation of labour and, perhaps to a lesser extent, the greater occupational fluidity of labour in many under-developed countries, greatly affect the meaning and significance of occupational statistics.

The weakness of such statistics is apparent when one considers that in most under-developed countries many of the so-called farmer spend a large part of their time in small-scale transport, portage and trade both during the farming season and much more so outside the season. They

¹ But high marginal rates of taxation as well as shorter hours of factory work may raise the importance of unpaid activities or of income earned outside the principal activity.

may trade not only in the goods they themselves have produced, but also in goods purchased by them for resale. Members of the cultivator's family, including children, may also be engaged in trade intermittently or continually during the year, while also at times helping on the farm or holding. The imperfect specialisation may extend to other classes as well. In West Africa, for example, many African doctors and lawyers and almost all the leading chiefs have trading interests, which are sometimes extensive. Government employees and servants of the European population often trade part-time, either in imported goods or in goods and food bought locally. The economic activity of many people in underdeveloped countries is better described as the performance of a number of different tasks than as the pursuit of a definite occupation.

Yet almost inevitably, if an occupational census were taken, the so-called farmers would be listed as farmers and the professional people in their respective professions. The subsidiary activities, which are significant in total, are left out. Moreover, the trading activities of children and of many wives are not likely to find their way into the statistical tabulations. Alternatively, if it were desired to give a more accurate picture of economic activity, the statistician would be up against formidable problems of investigation and measurement. Many Africans who engage in part-time trade, and not only in the marketing of their own produce, are not likely to regard trade as an occupation, because they regard it as part of economic existence and not as a distinct set of tasks; they are not likely to refer to these activities when describing their work. Again, it would be very difficult to distinguish between the social and commercial activities of a group of

women traders in a market-place.¹

The imperfect occupational specialisation is largely a reflection of limited markets, since the division of labour is limited by the extent of the market. Narrowness of markets is a very general characteristic of under-developed countries; indeed it may be described as one of the few really general features found in practically all under-developed countries. This is a consequence of high transport costs, the lack of capital for storage which in effect is transport through time, and the poverty of consumers. The narrowness of the markets does not affect labour and small-scale farming and trading only. Even large heavily-capitalised business undertakings in under-developed countries are apt to spread their

¹ The foregoing discussion, and some of the points made later, may be illustrated with extracts from Sol Tax, Penny Capitalism--A Guatemalan Indian Economy, Washington, 1953, a fascinatingly detailed and graphic account of economic life in a district (Panajachel) containing 155 Indian 'agricultural' households. Of the 155 households, 142 are 'represented by sellers more or less regularly vending produce in the local market ...'. With rare exceptions 'these families are represented in the local market only by their womenfolk.... Needless to say, selling in the market has its social and pleasurable aspects.... Most of the produce of Panajachel reaches markets in other towns...'. Apart from the activities of other merchants, 'most Panajachel Indians themselves market their produce in other towns, close and far ... 110 households regularly sell local produce in markets of other towns.... The more distant markets are frequented by individual men, a man and his son, or two or three brothers of the household. But also, while certain members of the family patronise one series of markets, others as regularly attend others.... In general it may be said that the rich sell only their own goods, and the poor, not having much of their own, have to buy at least some of what they sell... Wealthy families do not sell in distant places both because they have much to do at home and because they do not need to travel for a living.' (pp. 122-6.)

J. E. de Young, Village Life in Modern Thailand, Berkeley and Los Angeles, 1955, pp. 103-5, briefly describes the widespread marketing activities by Thai villagers.

activities in a number of different directions, in trade, manufacturing and mining. The expensive and productive combination of capital, skill and experience cannot be specialised to serve one or a few markets, since they are too narrow to produce economic returns. Hence there develops a network of a number of different but related economic activities: different in that they may include mining, transport, import and export trade, wholesale and retail trade, and manufacture of a number of products, and related in that they refer to the same economy concerning which the firm has specialised skills, knowledge and commercial contacts. However, it may be noted in passing that the diversification of business activities may sometimes also reflect at least partly the endeavour of the established firms to limit the prospects of new competing firms.¹

The fluidity of labour between certain occupations arises largely from the fact that only a low level of skill and of capital is required in these occupations in under-developed countries. People can generally move with little sacrifice or difficulty within a wide range of occupations in accordance with changes in prospective net advantages. These activities include various forms of small-scale trading, the supply of the less-mechanised forms of transport service, and the provision of personal services generally.² Many farmer are at no disadvantage in small-scale trading provided they have the small amount of capital which is required in this relatively unskilled activity. They will be willing to undertake

¹ The principal reasons for the diversification of the activities of the merchant firms in West Africa are discussed in P.T. Bauer, *West African Trade*, Cambridge, 1954, pp. 111-14 and 126-9.

² R. Firth, *Malay Fishermen: Their Peasant Economy*, London, 1946, Chapter VII, describes in detail the ease of entry into even wholesale trading in fish, the movement of individuals between a number of different activities, and the participation of fishermen in trade; the study refers to the east coast of Malaya.

the sale of their own produce unless they can spend their time more profitably in some other way, or unless they prefer more leisure.

When the economy develops occupational specialisation generally becomes more marked, and at the same time the fluidity of labour between occupations is reduced. Markets are extended with improvements in transport and increased purchasing power, so that specialisation becomes more profitable. Moreover, the increase in capital requirements and the improvements in techniques of production limit the movement of people between economic activities.

But economic progress cannot be accelerated simply by imposing restraints either on employers or employees to force them to specialise. Enforced specialisation may in fact be a serious obstacle to economic development. In parts of India a person's economic activities are often defined and limited by his membership of a particular caste. Even if the market or demand for his services may not be adequate to occupy his time fully, he nevertheless cannot take part in other activities because of the restrictions of caste.¹ Such restrictions conduce to a less efficient deployment of available labour resources; they also prevent the most economic use of capital accumulated by members of a particular caste. Again, the enforced division of work between the members of different trade unions or categories of labour, whether in the United Kingdom or in Southern Africa, increases occupational specialisation but reduces productivity.

Though imperfect occupational specialisation is a dominant feature of many under-developed countries, it should not be over-emphasised. Even in simple societies there may be scope for a handful of specialists in

¹ In some parts of India the customary connection between caste and occupation is being weakened. This is discussed and illustrated in M. Marriott (ed.), *Village India, Menasha*, 1955, pp. 2 and 157.

activities requiring some special skill (such as thatching, plastering or smithing) or special recognition (such as witch-doctoring);¹ but even then the specialised activity may not be a full-time occupation.

In many under-developed countries narrowness of markets, which discourages occupational specialisation, is found together with a more elaborate or minute division of labour in certain economic activities than is usual in richer countries. Some services which in richer countries are usually performed by consumers for themselves are in under-developed countries provided commercially, often in large volume in the aggregate. Various factors are responsible for this seeming contradiction.² The low level of capital, the scarcity of certain skills and, sometimes, the lack of opportunities in wage-earning employment, are among the main factors which create markets for certain services which tend to be provided by people for themselves in richer countries. The holding of stocks is one of these services or activities. Very poor consumers or producers may have very little storage space or funds to hold stocks. Hence as

¹ F. Chalmers Wright writes of conditions in Nyasaland and Tanganyika: 'The African boy doubtless is taught the proper way to thatch a roof or make a hoe or weave a mat or tip his arrow with poison; but each peasant community produces its fundi, whose special skill will be sought out by his neighbours. Knowledge of beer-brewing may be possessed by every African woman; but it is to the women who make the best beer that customers will flock.' African Consumers in Nyasaland and Tanganyika, London, 1955, p. 10.

J.E. de Young records that there are some 'specialists' in all Thai villages, 'although nearly all of these "specialists" are also part-time farmers'. Op. cit., p. 102.

² The contradiction is only apparent and not real, as an illustration will make clear. There may be a longer chain of separate independent firms or persons involved in distributing merchandise in an under-developed than in a richer country; but many of the traders will also be engaged in other activities such as farming and transport.

consumers they may be able to buy their requirements only in small quantities on a hand-to-mouth basis, and as producers, unless they act as their own distributors, they may require the services of small-scale traders to collect small lots of farm produce at frequent intervals. Among large sections of the population there may have to be a number of traders catering for their needs by dealing in small quantities. The West African petty retailer selling perfume by the drop or cigarettes by the piece, the woman spending a full day selling a dozen mangoes in a Caribbean market, and the woman selling paraffin in small quantities from door to door in a Thai village, are examples of an intermediary performing the functions of proximate stockholder, which in a wealthier country would be performed by each consumer for himself.

Where alternative opportunities for employment are relatively restricted, there will be many people willing to enter small-scale trading, for low rewards which in turn will extend the demand for their services. Again, where some item of equipment is necessary, the very poor consumers are not able to buy the item and have to buy its services from an intermediary who can afford one. Thus in India there are intermediaries who sell the services of a bicycle pump to bicycle owners who do not have a pump, and the hiring of bicycles itself is more common in poor than in richer countries. The possession of certain skills and training by a relatively small number of people in under-developed countries has a somewhat similar effect. Literacy is one example. In some poor countries the illiterate poor may use the services of a letter-reader or writer, and sometimes have to pay for them. Lastly, since personal services are likely to be relatively cheaper in poor than in rich countries (cheaper, that is, in relation to other goods and services), the better-off people of the poor country are likely to buy more of these services than their counterparts in richer countries. This applies to the demand, for example, for boot-blacks and domestic servants, which latter in some under-

developed countries fall within the category of conventional necessities for all but the poorest.¹

3. OCCUPATIONAL DISTRIBUTION AND ECONOMIC PROGRESS

The distribution of labour in primary, secondary and tertiary categories of employment, and the changes in the distribution accompanying economic progress, have been considered at some length in the writings of Mr. Colin Clark and Professor A. G. B. Fisher. Their thesis is that with economic development and rising incomes there is a progressive shift from primary to secondary and subsequently to tertiary employment. The thesis has been supported by reference to statistics of occupational distribution in different countries; it is also supported by an appeal to the propositions that as people grow wealthier they spend relatively less on food and more on manufactured goods and even more on services, and that the productivity of labour increases more rapidly in manufacturing industry than in the production of services (tertiary production).

We cannot examine this thesis in detail here.² We have already indicated that the statistical or empirical support for the generalisation is necessarily weak, because statistics of occupational distribution are misleading as a portrayal of the distribution of labour between economic

¹ The lack of servants in more advanced economies is well known. It is interesting that this phenomenon should have been noted by Liudprand, Bishop of Cremona, on his visit to Byzantium in 969. 'He noted with disgust that the bishops of the Greek church were rich in gold, but poor in servants. Their coffers, he says, were full of gold; but in the midst of this plenty, they were their own stewards and their own masters of horse, they opened the door for their guests, and they did their own shopping.' R.W. Souther, *The Making of the Middle Ages*, London, 1953, p. 47.

² We discuss it in two articles in *Economic Journal*, December 1951 and March 1954. It is also considered by A.L. Minkes, 'Statistical Evidence and the Concept of Tertiary Industry', in *Economic Development and Cultural Change*, July 1955.

activities. International (and inter-temporal) comparisons of occupational distribution are especially affected by the limitations of occupational statistics, because the degree of specialisation or fluidity of labour is not necessarily the same even in two countries with roughly the same national income per head. Statistical comparisons are vitiated both because of differences and changes in the imperfection of specialisation, and also because of shifts of labour between unpaid and paid activities.

There is much qualitative evidence of the quantitative significance of so-called tertiary production in under-developed economies.¹ This production takes the form mainly of household services and of trading and transport activities. The crucial role of trade and transport in

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¹ 'In Mexico City a visitor gets the impression that everyone is engaged in selling.... In front of practically all the stores in the downtown section the sidewalks are lined with peddlers spreading their merchandise on the sidewalks or on portable stands.... Block after city block is completely devoted to small shops and portable display stands.' E. R. Barlow, Management of Foreign Manufacturing Subsidiaries, Boston, Mass., 1953, p. 27.

In the Caribbean region 'a high proportion of the employed population is engaged in the production of services. Market places and streets are filled with ambulant vendors; there is a proliferation of tiny shops, which break packaged goods and make very small unit sales; self-employed small truckers and sellers of passenger transport services are present in large numbers; and full-time domestic servants are hired by even lower-middle income families.' S. Rottenberg, 'Note on "Economic Progress and Occupational Distribution"', Review of Economics and Statistics, May 1953, p. 168.

T. S. Ashton writes of eighteenth-century England: 'The worker [in textiles] had to do his own fetching and carrying.... On the roads of the north large numbers of weavers were to be seen bearing yarn in packs on their backs, or heavy rolls of cloth under their arms. The distances covered were often as great as most men would care to traverse in a day. ... It is said that in the hosiery trade of the east Midlands as much as two and a half days a week might be taken up in getting orders and materials, returning finished work, and collecting wages.' T.S. Ashton, An Economic History of England: The Eighteenth Century, London, 1955, p. 102.

quicken the process of economic growth and in extending the money economy is a well-known theme in economic history. In under-developed countries these activities tend to be labour-intensive because of the low level of capital and poor communications; small-scale activity in trade and transport also tends to attract many people when there are few opportunities for paid employment.

We may conclude that the thesis connecting changes in occupational distribution and economic progress is not established, and that occupational statistics are an infirm foundation for any generalisation.¹ Moreover, neither the concept of a tripartite classification of productive activities nor a general thesis linking occupational distribution and economic progress is necessary for the study of the economics of under-developed countries in general or any one country in particular. It should not be inferred from this that economic development and change do not require shifts in the distribution of labour in different occupations. Such shifts are both a prerequisite and a necessary consequence of economic change and growth. But there is no simple guide to indicate the direction in which the change will take place, or whether a given distribution of labour is the optimum in a given situation.

¹ One specific example of a reduction of labour in tertiary activity associated with economic development may be noted. S. Tax (op. cit., p. 186) observed that, after the establishment of truck and bus services, peasant producers who had previously 'walked to Guatemala City and consumed a week to sell a load of onion' were able to ride to the city and spend only '2 or 3 days to sell a larger load of onions.... The total result for the region was that more time could be spent on the production of wealth than previously, with less required for distribution of goods.' Similar effects of the improvements in transport can be found in many parts of the world.

CHAPTER IV

NATURAL RESOURCES

1. THE CONCEPT OF ECONOMIC RESOURCE

The inherent qualities and attributes of a resource are not sufficient to enable it to participate in production and to acquire value in the process. For this purpose it is also necessary that co-operant or complementary resources (factors of production) should be available, and that there should be a market for the resulting product. Access to co-operant or complementary factors of production and access to the market (or demand) are essential to the concept of an economic resource.

The value of an economic resource depends upon the terms on which the requisite complementary factors of production are available and on the strength of the market demand for its products. Thus its value depends in part on the market for the goods which can be produced with or from it; it also depends in part on the market for other goods which can be produced with the necessary co-operant factors of production. Thus the market, in the widest sense of the term, is crucial. An example may be useful. The value of land suitable for rubber cultivation in Sumatra depends not only on the price of rubber, but also on the remuneration in the alternative employments open to the labour which is required to develop the holdings and to tap the trees, as well as on the cost to labour of moving from one district or island to another. The value of the land therefore is contingent on the price of rubber itself, as well as on the prices of rice, pepper and coconuts both in Sumatra and in other parts of Indonesia, and on the cost of internal migration. The preferences of workers for leisure or for working in particular areas or engaging in particular types of work also affect the supply price of labour and thus the value of land. In short, the value of a resource does not depend upon its physical qualities or technical efficiency alone; a complex network of present and

future market influences forms part of the environment in which value is conferred upon resources.

It follows that the value of any one resource is dependent on the value of other resources. It is therefore somewhat misleading and arbitrary to treat particular resources, or categories of resources, in isolation, unless the inter-dependence of resources is kept firmly in mind. Moreover, the productivity and value of labour, capital and material resources are greatly influenced by the state of technology, the methods of organisation or production, the efficiency and policies of governments, and the organisation of societies generally. This once more affects the value of discussing the economics of particular categories of resources in isolation. In practice, too, the distinction between natural resources and produced resources is generally blurred, since human skills and efforts as well as capital (produced resources) are commonly used to improve or increase the economic productivity of natural resources such as farm land or rivers. Improvements in transport and the activities of traders have frequently in effect altered the facts of geography. Agricultural production in many parts of the world depends quite as much on the construction and maintenance of irrigation channels, dykes and drainage as on 'the original and indestructible powers of the soil'. The very soil for farming operations has sometimes had to be gathered together by cultivators, or made productive by clearing, terracing, and the like.¹

Nevertheless, it is convenient for purposes of exposition to consider

¹ Visitors to Malta—an island described by one of them as an 'inhabited quarry'—in the late eighteenth and early nineteenth centuries 'watched the peasant at work, saw the hard rock slowly reduced to small pebbles and then covered with scraps of soil collected laboriously from cracks and crevices all over the islands; observed the unwanted rocks erected into walls to protect each small plot with its valuable topsoil from the ravages of flood and gale....' C. A. Price, *Malta and the Maltese*, Melbourne, 1954, p. 12.

successively three broad categories of resources, viz. natural material resources, human resources and produced material resources or capital.

The first provides the subject-matter of the rest of this chapter. Chapters V to VIII deal with human resources, and Chapters IX and X with capital and capital formation. This treatment is one of convenience, and the classification is not required for purposes of any of the analysis or discussion which is presented. Each of the three categories is used largely as a peg from which to hang the discussion of topics selected because we believe that their economic analysis may be illuminating, or because they are important in contemporary discussions of economic policy in backward countries.

A methodological point may be noted here. Partial equilibrium analysis, in which a particular sector of the economy is considered in isolation, is a recognised and valuable technique in economic analysis even though it is realised that all markets and prices in an economy are inter-related. Many useful results may be derived from partial equilibrium analysis, even though certain effects of changes in a particular market, or sector, of the economy as well as certain influences coming from outside are implicitly or explicitly ignored. The method is useful because it simplifies and in spite of the fact that it simplifies. No such claim can be made for the treatment of the economics of any one major category of resources taken in isolation. The links between different categories of resources and between their values are too strong and the inter-relationships too significant to be ignored; the neglect of the inter-dependence would vitiate the results of the analysis and the conclusions would be empty of content. We avoid these pitfalls by emphasising accessibility as an attribute or condition which is crucial to the productivity or value of resources; this emphasis is necessary even at the cost of seeming repetition.

2. THE RELATION OF NATURAL RESOURCES TO ECONOMIC DEVELOPMENT

There are some areas where economic development is severely inhibited by very unfavourable natural circumstances. Thus economic development is unlikely in the polar regions, the deserts or the particularly inaccessible and inhospitable parts of Central Asia and perhaps parts of South America, except for such very localised and specialised economic activities as may occur around airports and landing-grounds, or oil-wells and so forth. But over much of the under-developed world there is no such pronounced lack of natural resources, and climatic conditions are not so unfavourable as to present insurmountable barriers to development. It would be an over-simplification to suggest that the under-developed countries in general are ill-favoured with natural resources and have niggardly endowments, especially of minerals and fertile land, and that this is a principal cause or only cause of their poverty which makes it difficult for them to create capital, thus setting up a vicious circle of under-development and poverty. The Creator has not divided the world into two sectors, developed and under-developed, the former being more richly blessed with natural resources than the latter. All developed countries began by being under-developed by modern standards, which are the operative ones; indeed they remained in this state until quite recently. The natural resources in their territories, whether rich or poor, have only been developed within a comparatively short and recent period of history. This is an obvious proposition, which, however, is frequently overlooked.

Throughout recorded history industrial and commercial leadership has passed frequently from one country or region to another, even though they did not differ greatly or obviously in their natural resources. Highly-developed areas or those in the van of economic progress have not been confined to particular climatic zones. Even in recent times countries which had once been in the forefront subsequently lost their economic supremacy and came to join the ranks of the present under-developed countries;

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parts of southern Europe and of the Mediterranean basin are examples. . . . It is clear from such changes that the availability of naturally-occurring material resources do not immutably determine the economic development of a country. Moreover, since the changing fortunes of many countries and regions have not been connected with the discovery or exhaustion of natural resources within their territories; the fortuitous distribution of these resources certainly does not provide the only, and probably not even the principal, explanation of differences in development and prosperity.

It is, of course, the case that prosperous nations either possess some valuable natural resources in their own territories or are directly concerned in the exploitation of such resources in other countries or have access to them. But in most cases they have largely raised the value of these resources by discovering and developing them through the application of capital, organising and technical skills and labour. The necessary and previously lacking co-operant factors of production have been supplied, and the natural resources clothed with, economic usefulness and value. The vast natural resources of the United States were in situ for many centuries, but that did not enable the Indians to pass beyond a most primitive level of economic achievement. The development of these resources in the nineteenth and twentieth centuries is only one example of the inter-relationship between production techniques, the size and quality of the population and the value of material resources; it also indicates clearly that the value of available natural resources is often a function of the supply of the former factors. In large measure the prosperity of a nation as well as the active development of its natural resources can both be seen as results or aspects of the operation of other causes, though the presence of the natural resources may serve to stimulate and reinforce their operation.

The absence of sources of particular natural resources within its

own territory has generally not been a serious impediment to the prospects of a nation which in other respects has been capable of initiating and sustaining economic growth. By means of the export of goods and services a country can buy the products of natural resources from countries which have them. So long as they are accessible on economic terms, the precise location or ownership of the natural resources is a relatively minor issue. In the nineteenth century coal from British mines was often used by German industry in preference to the output of German coalfields which were nearer in mileage but less accessible economically. Of course, the accessibility of foreign-owned natural resources may be reduced or destroyed by political action ranging from export controls to military operations. In this sense the ownership and location of natural resources may be of vital importance when international trading and political relations break down. They assume greatly increased significance when autarky is the policy chosen by nations or enforced upon them.

3. ACCESSIBILITY AND THE VALUE OF NATURAL RESOURCES

The economic significance or value of natural resources has been shown to be affected by access to co-operant resources and the terms on which these are available, as well as by access to markets and the strength of demand in them. It follows that the economic prospects of a country or region cannot be assessed meaningfully on the sole basis of an enumeration of its known natural resources. An inventory of a country's natural resources in physical terms can be compiled readily enough, and may be of some interest, especially a survey of natural communications, climatic conditions or ore reserves, though estimates of the latter are usually subject to a wide margin of error. But such an inventory cannot be translated into terms of commercial values or of potential economic development without importing assumptions about quantities and prices of complementary resources and about markets for the products arising from the use of the resources. Any economic survey of natural resources which does not indicate

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these underlying assumptions is of little meaning or usefulness. Moreover, even if the economic inventory of natural resources has been drawn up on the basis of the best available knowledge it is likely to become inaccurate or out-of-date practically as soon as it is presented, because prices in factor markets and product markets change, and so does the accessibility of natural resources both to markets and to the necessary complementary resources.

It is an understandable temptation for economic survey missions to spend much time on the listing of natural resources and their economic promise. For the reasons given in the preceding paragraph, the usefulness of this activity is doubtful even at the time of their investigations, and much more so after some time has passed. Natural resources, the existence, quantity and technical qualities of which are known, derive their actual or potential value from economic accessibility and the configuration of prices. These are the important but unstable and uncertain factors. Conversely, in appropriate circumstances favourable changes in accessibility and in market prices tend to set in motion activities which lead to the discovery of previously unknown natural resources or of previously unsuspected commercial possibilities in known natural resources.

The same considerations apply to surveys or estimates of cultivable and uncultivable land in different parts of the world. With a given state of farming technique the difference between cultivable and uncultivable land is often, one might almost say generally, a matter of degree, since land classified as uncultivable might become cultivable with the expenditure of additional effort or capital, or with changes in the market prices of agricultural products. Large and small-scale improvements in irrigation, whether undertaken by statutory authorities, large enterprises or small cultivators, have often greatly extended the area of cultivable land, for example in India and the Middle East. Again, with the rise in the price of rubber in the 1920's large areas in Malaysia were cultivated

which had previously been regarded as uncultivable. The boundary beyond which the cultivation of groundnuts as a cash crop in vast expanses of norther Nigeria and the neighbouring French colonies ceases to be worthwhile depends largely upon the level of groundnut prices and the costs of transport. Similar influences determine the ebb and flow in the economic value of land suitable for rubber-planting in the interior of Sumatra.

Accessibility vitally affects the economic position of many parts of the under-developed world, and changes in accessibility have had striking results in a comparatively short time. Numerous examples could be cited of the rapid growth of production for the market following on the establishment of communications and stable political conditions. Well-known instances include cocoa production in the Gold Coast, which was greatly stimulated by the building of the railway from Accra to Kumasi. Production of Nigeria groundnuts for export, and of kola nuts, both for consumption in northern Nigeria and for export overland, sprang up after the construction of the Nigerian railway. Production of cotton in Uganda was made possible by the construction of the Kenya-Uganda railway. The building of railways was an essential factor in establishing the accessibility of these producing areas. Another factor was the activities of traders who collected the produce from growers and acted as an indispensable link in the chain of communications.

The recent history of the rubber industry may be cited as one more illustration of the importance of economic accessibility and of the supply of co-operant factors in shaping the fortunes of an industry and of the different producing regions where it is located, and in conferring value on previously valueless natural resources. Until about 1900 almost all of the few thousand tons of rubber exported annually came from South America. After the turn of the century there was a large increase in the demand for rubber resulting largely from the development of the motor-car industry and the progress of rubber technology. The increased demand was

met from plantations (both large-scale capitalistic estates and peasant smallholdings) on South-east Asia, chiefly Malaya, Sumatra and Java, while the output of wild rubber from South America declined despite favourable prices. A principal reason for the migration of the rubber-growing industry is to be found in the access of these countries to large reservoirs of labour in South India, China and Java, as well as to the capital markets of Western Europe; the presence of enterprising European merchant firms and a stable administration also played an indispensable part. It is of special interest that neither Malaya nor Sumatra, the two main producing territories, had a large indigenous labour force, a particularly fertile soil, or supplies of local capital when rubber was first established there. No survey of their resources carried out, say in 1895, would have suggested that within a few years these territories would be the principal producers of the leading tropical plantation crop.

4. INSTITUTIONAL BARRIERS TO THE EFFICIENT USE OF NATURAL RESOURCES

Institutional arrangements may stand between natural resources and their most effective development and exploitation. The accessibility of the resources may be reduced by measures of official policy. A simple example is where otherwise suitable land is not made available for particular purposes, or where land in defined areas is not alienated to members of particular racial groups. In East Africa there are restrictions on the establishment of trading sites by non-Africans. This not only restricts the development of land for trading purposes, but also hinders the development of land for farming, since the market for farm products is made less accessible by the curtailment of the activities of traders. The restrictions on the alienation of land in different regions in East Africa (notably in Kenya) to members of specified racial groups are far more serious in their effects. Whatever the original causes of these restrictions may have been, at present they prevent new combinations of land, capital, labour and skills which are essential if the economy as a whole

and opportunities for all its inhabitants are to expand. This is a major theme of the Report of the Royal Commission on East Africa, 1953-5, to which the reader is referred for full details and a through and stimulating analysis.¹

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Land tenure systems also may affect the economic accessibility of natural resources. This can be illustrated by a brief discussion of communal land tenure systems which are a feature, in a variety of forms, of agriculture in many parts of the under-developed world. Communal rights prevent the energetic or able individual members of the group from acquiring more land at the expense of the indolent or unproductive. They also make it difficult, if not impossible, for either an individual or the group to borrow on the security of land for such productive purposes as the purchase of fertilisers or of simple equipment. Individuals also are unlikely to spend much effort or money on improving cultivated plots when these are periodically re-allotted by the tribal or village authorities, as often happens.² The system tends to encourage uneconomic farming practices in other ways. For example, there is no incentive to the individual to limit the number of cattle he grazes on communal land, since any benefit is likely to be reduced by the over-grazing practised by others. Similarly, the improvement in the quality of cattle is retarded if different herds are grazed together. The system may also discourage economically sound conservation practices; even if the total benefits of such practices should exceed their costs, these may not be incurred if the benefits would be shared by all the communal owners while only some

¹ Report of the Royal Commission on East Africa, 1953-5, London, 1955.

² In certain parts of Syria, village land known as much'a is held in common but cultivated in individual family plots periodically re-allotted among the holders. This gives 'little or no incentive to permanent improvement of the land'. International Bank for Reconstruction and Development, The Economic Development of Syria, Baltimore, 1955, p. 353.

of them would be willing to contribute to the cost of the required improvements. These drawbacks are unimportant when land is plentiful, or when the material aspirations of the group are limited. But they become important when land is conceived of as a productive asset, and when there is a growing desire to maximise the returns to be derived from it. Thus in times of social and economic change land tenure systems become a major issue of public policy; we return to this aspect of the subject in Chapter XII.

5. UNUSED NATURAL RESOURCES

The phenomenon of unused resources, and specially of unused land, often puzzles visitors and observers in under-developed countries and regions. The idleness of these resources, or their partial or limited use in production, is easily regarded as wasteful and as evidence of maladministration or inefficiency. However, natural resources may be left idle or be used incompletely or inadequately for any one of a number of different reasons. These have to be distinguished for purposes of analysis. Their economic consequences and implications for policy are widely different.

A resource such as land, a mineral deposit, a forest or a river may not be used in production because it is economically inaccessible. A natural resource is valueless when the cost of co-operant resources and the cost of transporting resources and products exceed the price the product can command in the best available market. If a natural resource is valueless, it will not be profitable for anyone to use it, even if the user does not have to pay for it.

There are many instances of known supplies of natural resources in various parts of the under-developed world which depend on improvements in economic accessibility before their utilisation becomes worthwhile; until this happens, they are valueless and unused resources. For instance,

it is known that there is a large and rich deposit of iron ore near Lokoja at the confluence of the rivers Niger and Benue in Nigeria, only about 330 miles from the sea and not far from the rivers. But its location is such that the transport costs make its mining uneconomic. In British Guiana as well as in other parts of the tropics there are large numbers of hardwood trees of high quality; their location is well known, but felling is not economic because of high costs of transport to the markets.

It is wasteful to use scarce resources to bring idle valueless natural resources into production. The value of the co-operant resources ex hypothesi exceeds the value of the resulting product; that is, the co-operant resources are capable of producing a more valuable output in other productive activities. Their application with previously unused and free natural resources would reduce the value of total output. Thus it is not irrational or uneconomic for some technically fertile or cultivable land to be left unused, even in countries with a low level of food consumption. The diversion of resources with more valuable alternative uses in order to extend the area of cultivation may increase the supply of food, but only at the expense of a net reduction in the value of total production.

The fullest possible use of natural resources is not a sensible aim of economic policy, and the extent of the use of land or other natural resources is not a measure of economic efficiency in the use of total resources. Government measures should not be appraised solely on the basis of whether they have enabled more natural resources such as land to be brought into productive use. An expansion of government services in an outlying area may bring new land under cultivation; though such a geographical extension of the economy may be desirable on other grounds, the policy would not be the most efficient economically if the same expenditure on government services elsewhere would have raised the real national

income by an even-larger amount.¹ The same considerations apply if railway rates are equalised or otherwise adjusted to subsidise transport to particular areas or regions. This may make it profitable for farmers to bring previously idle land under cultivation or for entrepreneurs to exploit forests or sources of mineral wealth. But to the extent that the reduction of transport costs to some users raises the transport costs of other users, the development of unused natural resources is at the expense of the development of other resources which is burdened with additional costs. The use of natural resources which is made possible only by relieving the users of part of the costs of co-operant resources is uneconomic from the point of view of the economy as a whole, because some resources are not used to the best economic advantage.

However, the idleness of resources does not mean necessarily that they are valueless or economically inaccessible. Natural resources may be left unused as a result of monopolistic action on the part of those controlling them. In such circumstances the value of the output which can be secured by using these resources exceeds the cost of the necessary co-operant factors. Production does not take place because of monopolistic restriction of output, which secures private gains to the monopolists at the cost of social loss through the idleness (or under-employment) of resources which could otherwise make a positive net contribution (or larger contribution) to output and national income. Organised commodity restriction schemes have in the past been among the most important examples of this kind of monopolistic action in under-developed countries. There is a clear difference between land left unused because complementary resources are more valuable in other uses, and land kept out of use

¹ Where the expenditure is met out of the proceeds of taxation, one should also consider the alternative uses to which the money may have been put if there had been less taxation or none at all.

(or out of the most productive use) by the decisions of a monopoly.¹

A special situation may be noted which is in some way analogous to non-utilisation of land stemming from monopolistic action. Unused land is often owned by the government which determines the price at which it is alienated to farmers and others or made available for use by them. Land which could make a positive net contribution to output and income will remain unused if the terms are too restrictive or onerous, that is, if the price asked (or the rent charged) is greater than the discounted value of the expected net yields (or the expected annual net yield). This result can occur even when the government is not trying to maximise its receipts from the sale or rental of the land. In Malaya, for example, the 'rents' charged for unalienated state land are often greater than the net yield of which the land is capable; such charges in excess of the economic rent of the land impede cultivation and development.

Land may be left unused in the commercial sense because its owner prefers to use it for non-commercial purposes, as a private park, game reserve or for sport. Here the commercial idleness of the land is not wasteful; the owner of the resource prefers the pleasure he derives from the private enjoyment of his property to the money income he forgoes by not using the land as a commercial asset. He may do so in full realisation

¹ Measures of control, private or public, ostensibly introduced in the interests of conservation of resources (a topic considered in Chapter XIV, section 3, below) may serve as props for the support of monopoly restrictions on output. It is said that measures in certain states of the United States for the conservation of oil deposits were monopolistic in intention and effect, though they were publicly justified as being necessary for the conservation of a wasting national asset. However, monopolistic restriction and conservation are analytically distinct; with the former there is the power and intention to influence the current price of the product, while with the latter the intention, as well as the power, may be absent.

of the income he is able to obtain from using the land in the production of crops, raising of cattle or development of a housing estate. If he himself is ignorant of these possibilities, other with greater knowledge and experience will make him aware of the market value of his land by their bids for the possession or use of it. Moreover, even if owners are mistaken about the most effective economic use of their resources, the resulting loss falls primarily on themselves since, in view of their lower incomes, they will have smaller claims on society's resources. Failure to produce output is essentially a second order effect from the point of view of the economy as a whole.

It would be misleading to consider uneconomic the commercial idleness of land where this is the 'use' preferred by its owner. This would disregard the owner's valuation or use of his own asset; it comes close to saying that a person with great talents uses them uneconomically if he voluntarily indulges in periods of leisure at the expense of a larger value of saleable output. For social and political reasons it may be regarded as undesirable that the owner should continue in possession of land which is not put to the most lucrative commercial use. But this raises issues principally affecting the distribution and redistribution of income and capital which cannot be considered here. In any event these are not significantly affected by the utilisation or idleness of the land.

We have now distinguished three different types of idleness or non-utilisation of natural resources, namely, idleness reflecting the inability of the resource to contribute to profitable production, the withholding of the resource in the interests of monopolistic exploitation of the market, and the employment of the resource for non-commercial or private purposes. A fourth type is the withholding of a natural resource from current production because the owner believes that it will make a

more valuable contribution to production at a later date. Thus the owner of a mine may postpone the extraction of the mineral or reduce the current rate of extraction in the expectation that the costs of co-operant factors or the market for the mineral will move favourably in the future. The complete or partial withholding of the resource, and its attendant idleness, is economically desirable if the expectations of greater future returns are likely to be justified. It is speculative in the sense that all economic activities requiring time are necessarily risky in an uncertain world.

Governments often regulate or influence the rate of exploitation of so-called wasting resources by means of one or other of a range of measures, and so alter the flow of income derived from them, both in respect of its distribution through time and its total over time. Measures of official policy in this field are considered in some detail in Chapter XIV, section 3.

CHAPTER V

HUMAN RESOURCES:

POPULATION; INSTITUTIONS

1. SCOPE OF CHAPTERS V, VI, VII AND VIII

Individuals, communities and nations differ very much in the possession of qualities and characteristics affecting economic efficiency and performance. But the methods of economic theory and analysis are not particularly suitable for discovering uniformities in this sphere, or for generalising about the causes of these differences. It is not for the economist to say to what extent biological, environmental or historical factors account for differences in people and in societies in respect of their ability, desire and willingness to increase their production of goods and services and to promote economic growth. It is easy enough to list the personal qualities which help in the process of economic change and development; such a list would include an interest in material things, responsiveness to new ideas, willingness to learn, perception of economic opportunity, mobility and general ability to adapt to change, ability and willingness to take a long view, resourcefulness, industry and thrift.

But the economist is not qualified to pronounce on the cultural, biological, historical, geographical and other factors explaining the distribution and incidence of these qualities in different societies or in the same society at different periods; and there are no general principles of economics directly relevant to these issues.

The more modest purpose of these chapters is to discuss some attitudes and factors bearing on the economic performance of individuals and groups about which economists may have something useful to say, without, however, confining the discussion to so-called economic influences. By limiting our aim to a study of some selected topics, we have been able to

steer clear of the danger of confusing causes, effects and symptoms which besets any attempt at a comprehensive survey and analysis of the economics of human resources.

2. POPULATION AND REAL INCOME

The relationship between size of population and real income has interested economists for several centuries. In the late eighteenth century and first half of the nineteenth century the population problem was central to the enquiries of leading economists. Interest in it receded partly because the problem seemed to become less intractable, and also because the population question seemed to be less amenable to the techniques of economic analysis. In more recent years interest has revived. The facts and fears of declining populations in some Western European countries and, later, population pressure in many parts of the under-developed world have attracted attention and provoked enquiry.¹

The demographic position and trends are not uniform in all under-developed countries. Countries differ greatly in the density, age-structure and rate of change of population; there is no standard pattern which can be contrasted with that of one or other more advanced economy. Moreover, the most densely populated countries are not necessarily those with the most rapid rate of population growth; the rate of growth of population in India and Pakistan since 1800 has not been very different from that in several countries in Western Europe in the same period. The present rate of population growth in India and Pakistan is not significantly greater than that in the United States. The significant point of

¹ Our discussion of the facts and implications of changes in population in under-developed countries is necessarily brief. For a fuller discussion the reader is referred to J.J. Spengler, 'Demographic Patterns', in H.F. Williamson and J.A. Buttrick (eds.), *Economic Development: Principles and Patterns*, New York, 1954.

contrast is, of course, that in the Far East and in South Asia there is a heavy reliance on a comparatively backward agriculture, - so that large areas are over-populated in a sense in which the West is not.

The fact that there is population pressure in many under-developed countries should not lead to hasty generalisation. Though it is fairly evident that some countries are in the position that total output would not fall proportionately if part of the agricultural population were removed, it is also evident that some countries are so sparsely populated that there is insufficient scope for effective division of labour or for the economic installation of technically indivisible productive assets (such as harbours and roads).¹ Some countries, indeed, may get the worst of both worlds in that they are very densely populated and yet are too small to justify investment to provide or improve facilities which would widen the market; some Caribbean islands seem to be in this position.

The general ideas behind the terms 'over-population' and 'under-population' are fairly clear. Thus the term over-population serves to indicate a state of affairs in which, with given techniques and natural resources, real income per head would be substantially higher if the population were smaller; and under-population has the converse meaning. These simple considerations are, however, rather remote from the idea of an optimum population, the numbers of which exactly maximise real income per head. This concept is fanciful; and, even if it were desirable, it would not be possible to govern the size of the population by reference to it. It is impossible to ascertain the optimum number in given circumstances, and the very concept is doubtful. It is linked to a given

¹ The assets in question are those the products (services), of which cannot be transported at all or only at disproportionate cost. They would include harbours, roads and electricity-generating plant, but not steel-making plants or universities.

technique and a given governmental or institutional organisation; yet these might be different if numbers were different. With different numbers the methods of cultivation and the crops produced, as well as the cost of transport, might differ so greatly as to make it impossible to measure optimum density. The optimum would also be affected by the time over which adjustments were made and the way in which the population change would be affected: the change in numbers, which always affects the age composition, necessarily affects the optimum.

The most fundamental weakness of the concept of optimum population, which is of special relevance in the context of under-developed countries, is the underlying idea that, with given natural resources, output per head is a function of numbers alone. In fact, however, real income is vitally affected by the quality of the population, and the theoretical optimum would depend on the skill, resourcefulness and thriftiness of the population. It is a familiar phenomenon that Chinese, Lebanese and Indians arrive in what appear to be hopelessly over-populated countries such as the West Indies, make a living there, create capital and provide opportunities for the employment of others as well. Thus the quality and attitudes of the population affect not only the level of real income but also the numbers at which the income per head is likely to be maximised.

In those under-developed countries in which contact with the outside world is absent or only peripheral, a Malthusian situation often prevails, with birth and death rates balancing at high levels. The causes of the high death rate include such factors as famine, endemic and epidemic diseases, high infant mortality, tribal warfare, and various social customs. It is conceivable that such a system might be raised to a higher level by some improvement in agricultural methods bringing about an improvement in the standard of living, which would then be followed by a

fall both in the birth and death rates, so that the increase in production would not be absorbed by an increase in population.

A more likely course of events is that the principal improvements stemming from closer contacts with more advanced economies are such as to affect death rates in the first instance before a significant increase in total output can take place. In such circumstances population is likely to increase at about the same rate as the volume of output. There may be no marked improvement in the standard of living, the increased output being taken out largely in the form of increased numbers. This, for instance, seems to have occurred in India where the improvement in communications, especially the construction of railways and canals, has transformed the facts of food supply and of famine. Up to about the second half of the nineteenth century a failure of the monsoon generally caused large numbers to starve to death in the afflicted areas, since food could not be brought to them from areas where it was available, whether from stocks or from current production because of the inadequacy of communications. After the building of railways and canals local crop failures, even if they affected large areas, no longer resulted in mass starvation. The very meaning of the word famine has undergone a change; while in the nineteenth century it referred to conditions in which large numbers died from hunger, nowadays in India it denotes a state of affairs in which large numbers are totally unemployed through the failure of a harvest. The reduction in deaths from famine has been reinforced by the suppression of both endemic and epidemic diseases, a decrease in infant mortality, and the suppression of practices such as widow-burning and infanticide. Thus progress has taken a form first affecting the death rate. Much the same has happened in parts of Africa. Although population density and trends differ greatly in many under-developed countries, this broad sequence of events has been fairly common in the early stages of economic development. As a result population has tended to increase before

there has been a substantial increase in real income per head (as measured conventionally).

It has been a common experience in the under-developed world for increased output to be accompanied by increased numbers; but it has been unusual for the sustained rate of change in population to be as great as the rate of change in output, particularly where the growth in output has come after contact with the West. There is ample evidence of an increase in the level of real consumption per head in many parts of the under-developed world. Even in India there has been over the last half-century an appreciable increase in real income per head, which is reflected for instance in the improvement in diets, with the substitution of wheat for lower-grade cereals and the increased consumption of fruit and vegetables. There is little evidence that, save in the most primitive and isolated communities, the supply of labour (population) is approximately perfectly elastic at a real wage (real income per head) equal to some fixed subsistence level. Where the volume of production has risen, it has usually been taken out partly in larger numbers and partly in higher real incomes per head. Even where present standards of living are still low, they are higher than they had been before self-sufficiency gave way with growing economic and social contacts, and they represent a more varied consumption.

There is an important point to be noted about the customary emphasis on real income per head as a criterion of economic well-being and development. The increase in population in under-developed countries generally reflects a fall in the death rate and thus a longer life expectation. This implies a psychic income, the value of which is clear from people's readiness to pay for the satisfaction of the postponement of death, both their own death and that of their relatives, especially their children. Satisfactions or incomes of this kind are not included in estimates of national income, and hence in estimates of real income per head; and to

that extent the results and implications of population growth and economic development are obscured.

In India and Pakistan the rate of population increase is at present approximately $1-1\frac{1}{2}$ per cent per annum; the very large absolute numbers involved tend to obscure the fact that the percentage rate of increase is not exceptional, and not much higher than in a number of Western countries, including the United States. But when poor countries are densely populated and have large absolute increases in numbers they are in a vulnerable position even if the proportionate increase is small, since a harvest failure may mean a large external deficit with a balance of payments crisis, and may even turn the terms of trade against the afflicted country. Of course, if such a country not only has a large absolute increase in numbers but also a large percentage increase, its position is even more vulnerable.

Although economic development is often accompanied initially by a fall in the death rate, so that part of an increase in total output is absorbed by larger numbers, the birth rate often falls subsequently, especially when it had previously been high. But this is not an inevitable development. The improved status of women and the greater variety of ways in which leisure can be used are among the forces which often serve to reduce the birth rate.

Other economic and social problems arise when economic advance is accompanied by a reduction in death rates. The economy may have to bear a heavier burden of dependency. This is likely to be particularly acute in the transitional stage, for improved levels of consumption and health services are likely subsequently to lengthen the effective working life of members of a population with a longer average expectation of life. The difficulties of transition may be increased by the need to find resources for the education of the larger number of children. The burden

absurds!

of dependents is once more increased, and a source of labour is diminished. Changes in the age structure of the population and in its social structure may have as important consequences as changes in absolute numbers or in rates of increase.

3. THE EXTENDED FAMILY: THE ECONOMIC IMPLICATIONS OF A SOCIAL INSTITUTION

Certain social institutions which are appropriate to a subsistence or near-subsistence economy may impede economic growth directly by reducing the rewards of individuals who take advantage of the opportunities presented by wider markets and the improved availability of co-operant resources. The extended family sometimes known as the joint family, is an example of an institution which has many advantages in one stage of economic achievement but which may later become a drag on economic development.

In many parts of Africa and Asia the term family has a different and wider connotation than that which is customary in more industrialised societies. The term includes many more distant relatives and kinsmen than in Western Europe, and in many ways refers to a group more akin to a clan than a family in the narrower sense. It is a feature of the economic and social life of the countries in which the concept of the extended family prevails that a man has obligations towards a much larger number of people than in communities in which the concept of the family is more restricted. Even a moderately prosperous man may find that he has scores of relatives and clansmen to provide for; hospitality on a lavish scale to family members and indiscriminate maintenance of distant relatives is a feature of economic life in many parts of Africa, India and China.

The institution of the extended family is a feature of a subsistence or near-subsistence economy. In such a society surpluses cannot be marketed; this partly explains the readiness of people to make gifts of their surpluses and the dictate of custom that they should do so. Moreover,

wide personal obligations act as a form of insurance in societies in which most people live at a very low level of income and have little or no reserves. The larger the number of people who have recognised obligations to contribute their surplus as well as rights to share in the surpluses of others, the more effective is the insurance. This is valuable when there is no alternative private or public provision for the relief of distress. The extended family system serves as an insurance fund, as an informal poor law, as a means for pooling and circulating capital within a group, and also as an outlet for charity and generosity. For instance, distant relatives who are mentally or physically sick are often maintained in Chinese or Indian extended family households. In West Africa family resources are often pooled for such purposes as educating a promising child or assisting a member of the family in setting up in trade or in an occupation. The informal extended family system is also a common feature among immigrant communities even in advanced economies, particularly before the immigrants are well integrated into the life of their new country.

We have mentioned the virtues of the family system in appropriate circumstances. But on the negative side it acts as a serious obstacle to economic progress. A man is much less likely to be willing and able to rise in the income scale, and to save and invest, when he knows that, should he succeed in improving his position, he would have to maintain a large number of distant relatives, distant in the sense of having remote blood ties and quite often also in the sense that they normally live far away. At the same time the system, which is largely indiscriminate in its operation, minimises the inducement for people to improve their own position because they can count on being provided with the means of subsistence at a level not very different from that of the majority of their kinsmen, including the more energetic, thrifty and able. The system has other adverse effects which are less obvious. It obstructs the spreading

of the banking habit since people are unwilling to have banking accounts the contents of which are likely to be divulged to kinsmen. Generally, it weights the scales against investment in forms which are particularly conspicuous in a largely agricultural society.¹ It also adds to the reluctance of foreign firms to employ members of the local population in positions of trust and responsibility. Indeed, it often discourages men from accepting such posts or similar posts in government service, because increased responsibilities do not necessarily bring with them the personal enjoyment of a proportionately increased reward if the larger income, or part of it, has to go into the family pool.

As the economy develops and becomes increasingly removed from the subsistence stage, the concept of the family narrows, and the number of people to whom individuals recognise family obligations tends to become smaller. Surpluses can be marketed regularly with the growth of specialisation and of wider markets. A larger proportion of the population is raised above the strict subsistence level; and though there is often a time lag, alternative private or public insurance or other arrangements replace the traditional methods for the relief of personal distress and disability. The development of exchange tends to eliminate custom-dominated personal relationships. Relationships become increasingly

¹ 'Each member of the extended family group may have a more or less effective contingent claim on the use of chattels possessed by other members.... A shop being, by definition, a repository of commodities awaiting, as it were, exceptional possession by individuals, the African shopkeeper [in Nyasaland and Tanganyika] is peculiarly exposed to requests of relatives that he should enable them to share with him possession of his stock.... The African trader often finds it expedient to establish himself outside his native habitant.' Chalmers Wright, op. cit., pp. 54-5.

impersonal, which tends to reduce the number of people who have claims on individuals.¹

An institution like the extended family does not give way equally easily in all societies. In Africa its disintegration is proceeding apace in areas in which the money economy is advancing rapidly. In India and China it has been a feature of the social landscape for many centuries, during which these countries had at times attained levels of economic achievement far beyond those now current in Africa.

4. SOME IMPLICATIONS OF INSTITUTIONAL CHANGE

The disintegration of institutions in the course of economic development is not an unmitigated blessing, even though it may clear the way for more rapid progress and be a necessary consequence of it. Individuals are not equally adaptable to change and able to deal with the challenge presented by changing conditions, relationships and opportunities. The less adaptable may go to the wall; and in the process of change, if it is rapid, those institutions which gave some security and protection to the weak may have disappeared. Moreover, economic change and development are not as a rule equally pronounced in all regions or in all sectors of the economy. Older institutions exist side by side with the emerging institutions and customs of an exchange economy. Social and political tensions between different areas and different occupational classes result

¹ An anthropologist, examining changes among the Pondo in South Africa, summarises these tendencies in the following terms: 'There is increasing economic individualism. The co-operative economic unit, the umzi [local kinship group], is decreasing in size, and more and more families of a man, wife, and minor children, tend to become independent groups. Economic values are becoming dominant.... Whereas formerly, a big umzi, many adherents, and the giving of many reasts carried prestige; now a man tends to be judged by his house, his clothes, his food.' M. Hunter, *Reaction to Conquest*, London, 1936, p. 546.

from this dichotomy, and complicate the difficulties which confront people when personal relationships based on long-accepted status and customary rights and duties are replaced by relationships based on impersonal commercial considerations and contract.

The increased prosperity and influence of individuals who are most successful, either because they have the special qualities required by the changing conditions and moving economic horizons, or because they are less mindful of the old order of things, are likely to be particularly resented by many of their fellows; the very qualities which become important and valuable are almost by definition far removed from those treasured in the established social structure. These tensions are perhaps fully resolved only when economic growth has permeated the whole country, when the values and habits appropriate to an advancing or advanced economy have displaced those of an earlier stage, and when new institutions have replaced those jettisoned in the process of change. It is a matter of opinion how thorough-going and pervasive the change in social ethos and social structure must be. Some economic historians have sought for (and sometimes thought that they have discovered) connections between the religious reformations of the sixteenth century and the economic changes experienced in Europe. On the other hand the economic history of Japan demonstrates the compatibility of rapid economic change and growth with the preservation of traditional attitudes and social relationships, recast or reemphasised as these may be to suit the needs of a new economic order.

However, it is clear that economic progress both requires and causes significant changes in social institutions and in the people who are served by them. The social structure becomes transformed, new opportunities appear, the population increases, latent qualities become more valuable and are brought into use, and new incentives are held out. Just as the opening up of a railway may raise the value of hitherto neglected

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the "Chief"

land and reveal unsuspected productive powers, so the growth of markets and the greater availability of co-operant resources may raise or otherwise alter the value of the talents of people in a variety of ways.

In a sense there is a choice between the material benefits of economic growth and the (temporary) social disruption and change on the one hand, and the economic backwardness and established social system on the other. In practice the people concerned rarely have had this choice, since it has been difficult in a world of dwindling distances to keep out foreign influences and to isolate an economy. Moreover, it is somewhat misleading to talk of the population of a country in the aggregate, since the economic interests and preferences of all individuals and groups in it are not likely to be the same. Naturally the passing of a previously established system is regretted by many, more so as its virtues are nostalgically exaggerated and its drawbacks, including its economic drawbacks, are forgotten in the contemplation of the inevitable difficulties of the new or emergent system.

Some of the difficulties and tensions set up by economic development are illustrated in a particular context in the following passage describing the experiences of African workers in the developing industrial society of the town of Jinja in Uganda:

'The African... finds it difficult to adjust himself to the new economic system and the way of life which goes along with it. He has to carry out operations which are unfamiliar, on new materials and with new implements, in an unaccustomed environment in which timing and attention to detail have a previously undreamed of importance. He is expected to work for long stretches every day, at a

1. C. Sofer, 'Working Groups in a Plural Society', *Industrial and Labour Relations Review*, October 1954, p. 73.

time and place determined by others, to keep working all the time, and to associate during the working day with Europeans, Asians and Africans of other tribes whose behaviour bewilders and often antagonizes him. He comes to regard his European and Asian superior as impatient, over-critical, and unjust. They are in an incomprehensible hurry to complete every task.'

It is not surprising that the European or Asian employers or supervisors have to accept the fact that by their standards 'the African worker is unsatisfactory' and that the 'quantity and quality of his output is poor'. The resulting attitudes and tensions are, no doubt, exaggerated by the fact that the employers and supervisors are non-African; but the early history of industrialisation in Britain and elsewhere indicates that the difficulties stem basically from change and not from racial differences. Moreover, British industrial experience also suggests that the economic performance of the Africans is likely to improve over the years as the process of acquiring skill and settling into a changed environment goes ahead, though it is not possible to generalise about the rate of improvement or the level eventually to be reached. In other parts of Central Africa tension of another kind are already being created precisely because African workers have within a short period become serious competitors for employment in occupations requiring skills which originally were beyond their reach.¹

It is possible that the process of adaptation of most individuals to a changed social and economic order is shorter and less difficult than

¹ According to a recent report American managers of branch factories in Mexico consider the local labour to be about as efficient as their counterparts in the United States, a judgment confirmed in some cases by comparative statistics relating to plants using the same equipment, E.R. Barlow, op. cit., pp. 47-50.

is often supposed. Adaptability to change is an attribute which may possibly be more widespread and effective than ability to introduce change. Much depends upon the way in which the process of growth and change is set in motion; the speed of the process, and the extent to which it permeates all sectors of the economy. Generally, a slow but steady development is likely to create fewer political, social and economic tensions; and it is likely than an attempt to force the pace too strenuously may also be economically wasteful because the social and personal changes may not take place which are necessary to enable individuals or the society to profit from the development and to sustain it. A serious dilemma is posed by the possible conflict between the desire for rapid growth which is displayed by influential groups in under-developed countries and the difficulties of adaptation to rapid growth.

5. ECONOMIC IMPLICATIONS OF RESTRICTIVE TENDENCIES

Restrictions on the movement of people or on the acquisition and exercise of skills prevent the best use of available human resources. Their operation also obstructs the most effective use of other available resources, and thus retards economic growth generally.

There is a strong tendency towards restrictionism in societies based on specialisation and the division of labour. The motive for restrictive measures protecting the members of a particular vocational or occupational group is the desire to increase, or at least to maintain, the value of the services provided by its members by restricting their supply or regulating additions to the supply. Another type of restrictionism stems from, or is connected with, xenophobia, which is often very marked in societies at or near tribal levels. In these societies economic intercourse with people outside the tribe is often discouraged for a variety of reasons, but chiefly because it is believed to be harmful to the cohesion of the group. Restrictive tendencies stemming from

these two distinct sources are often found side by side and merge into each other. When the impact of a money economy has been sudden, the type of restrictionism associated with economic specialisation may come into play while the restrictions stemming from village or tribal exclusion still operate. Governments of under-developed countries often support restrictionism by the encouragement and promotion of trade unions, or the introduction of minimum wage regulation in particular sectors. This means that there is no appreciable stretch of time during which economic development can take place untrammelled by the obstacles erected by restrictive groups and organisations. The breakdown of earlier economic restraints and the general absence of major or widespread economic restrictionism contributed materially to the growth of British economy in the eighteenth century and much of the nineteenth century, and of the American and Japanese economies in the nineteenth century. It seems that many of the present under-developed countries will not have this period of respite unless there is a material change in government attitudes towards restrictionism.

For obvious social, political and administrative reasons restrictive measures are prominently and effectively directed against foreigners in the sense of people of racial, national or tribal origin different from that of the majority of the local population. But quite often they are directed also against members of the local population. Such restrictions are a notable feature of West Africa and of many other under-developed countries. In West Africa the transition has been rapid from the tribal and subsistence to an individualistic exchange economy, and the two sources of restrictionism have reinforced each other. An instructive example is provided by the vocal opposition in the Oyo and Ondo provinces of western Nigeria to the operations of produce buyers from Ijebu-Ode. For some years past Jebu traders from Ijebu-Ode have been operating in the neighbouring districts of Oyo and Ondo purchasing cocoa

and palm kernels. The Jebus are racially closely related to the population of Oyo and Ondo; ethnically and linguistically they are almost identical; moreover, the Jebus frequently engage local agents and lorry drivers to act on their behalf. These traders have secured supplies by outbidding the local produce buyers, and their activities have aroused opposition which is led by certain influential Yoruba chiefs. It is clearly unconnected with racial animosity and is a straightforward attempt by the local produce buyers to curtail competition which obviously benefits the local farmers. This is a particularly clear-cut example of the economic basis of ostensible xenophobia. In many cases the restrictions on the activities of West Africans have official support, taking the form of official restrictions on the granting of trading plots or market-stalls to Africans from other districts or tribes, restrictions on the leasing or alienation of land even where it is amply available, and restrictions on the employment of strangers and on the movement of commodities.¹

Official restrictions on the entry or activities of foreigners are common throughout the world. Their effects on development are likely to be particularly serious in the poorer countries. We shall note (in Chapter VIII, section 2) the large and sometimes vital part played by immigrants in economic development. They have supplied missing or scarce resources, attributes and skills, and by their activities they generally have widened the opportunities of the indigenous population. The general failure of the largely inarticulate beneficiaries to understand the significance of the economic contribution of immigrants, allied with the pressure of local sectional groups whose interests may appear to be directly threatened by immigrant competitors, are largely responsible for the

¹ A more detailed analysis of restrictive tendencies will be found in P.T. Bauer, op. cit., Chapters 3 and 12.

popularity of restrictions on the entry and activities of foreigners even in countries in which, in other contexts, a high priority is given to the forcing of economic growth. The fact that the controls and restrictions operate directly against foreigners adds to the popularity of such measures in countries in which the presence of foreigners is resented on various political grounds.¹

¹ These matters are considered in some detail in our article 'Immigration Policy in Nigeria and the Gold Coast', South African Journal of Economics, June 1954.