• SOME BASIC CONCEPTS IN THE ECONOMICS OF GROWTH

Economists often identify the following three major factors in economic growth:

1. Capital accumulation,
2. Population and labour force growth, and
3. Technological progress.

Capital Accumulation

Capital accumulation or capital formation in current national accounts refers to additions to the stock of material goods in a country obtained by the expenditure of current product. According to this definition, we may say that when new factories are set up or new machinery and equipment are obtained, capital accumulation takes place. Obviously it is possible to augment the future output of the country with increased stock of capital in these forms. However, this concept of capital is narrow in the sense that these directly productive investments have to be supplemented by investments in the infrastructure, that is, transport system, communications, electricity, etc., if an economy has to develop. In fact, development of infrastructure facilitates directly productive activities. Apart from these direct ways of increasing the country's capital stock, there are some other less direct ways to invest the nation's resources. Creation of irrigation facilities, use of bio-chemical fertilizers and insecticides, etc., raise farm output. In fact, these investments do precisely what one could do by bringing more land under cultivation. In densely populated countries, where pressure of population is considerable, the latter option is not available.

In a wider sense the term capital accumulation also covers investment in human resources. According to Frederick Harbinson, "Human resources...constitute the ultimate basis for wealth of nations...clearly, a country which is unable to develop the skills and knowledge of its people and to utilize them effectively in the national economy will be unable to develop anything else."[1] Now most people will agree with Harbinson and would argue that investment in human resources can improve their quality and thereby have the same effect on production as investment in material stock of capital. Formal school education, vocational training, technical and managerial education, informal adult and other types of education all contribute to human skills in various degrees, and thus raise the labour productivity. This is an important fact and cannot be ignored in any formal programme for economic growth. However, in the past, expenditure on education was treated as an unproductive expenditure rather than as an investment necessary for accelerating the pace of economic growth. To a modern development economist "the concept of investment in human resources and the creation of *human capital* is...analogous to that of improving the quality and thus the productivity of existing land resources through strategic investments."[2]

Population and Labour Force Growth

Of all factors labour is the only active factor of production. Humans, in fact, "are the active agents who accumulate capital, exploit natural resources, build social, economic and political organisations, and carry forward national development."[3] **Capital, land and other natural resources in contrast are passive factors of production.** Taking note of these facts the labour force has been traditionally considered a positive factor in stimulating economic growth. At the time of industrial revolution in the West, labour force had to be released from agriculture, as urban population growth was inadequate to meet the growing demand for industrial labour. In the former Soviet Union, the State provided incentives to people to have more children, because it apprehended slowing down of the growth rate in the event of labour supply falling short of demand. However, in labour surplus Third World countries rapidly growing labour force may exert a negative influence on economic growth. Robert Cassen and Coale and Hoover firmly endorse the view that high fertility in present-day less developed countries in long term will result in slower growth.[4]

Technological Progress

Steady growth can be generated by capital accumulation in a world of growing labour force, even if there is virtually no technological progress. In fact, this is how growth took place, though indeed at a slow rate, prior to industrial revolution. Now **technological progress is an important and probably the main factor in economic growth.** Technological progress implies that it is possible to raise output level over time from given human resources and equipment. But it can take a variety of forms and we now wish to define and distinguish some of the common forms of technological progress. **The three basic classifications of technological progress are neutral technological progress, labour-saving technological progress and capital-saving technological progress** According to Hicks, technological progress is neutral when a country manages to achieve higher levels of output with the same quantity and combinations of labour and capital. It thus obtains when the production function shifts over time by a uniform upward displacement of the whole function. In this case the efficiency of both labour and capital increases at a uniform rate.[7]