

EDUCATION IN ECONOMIC PERSPECTIVE

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A pool of creative minds is the greatest strength to a nation. The mind reflects in types of activities, functioning in a nation's body. When a new set of development patterns emerges in a developing society, it adds cumulatively in the formation of human capital. The potential, so created, paves the way for restructuring the whole economic set-up. A time pattern also comes in, which correlates with the action of human mind and exploitation of natural resources, though both move together on the onward march to shape the destiny of a nation on economic plane. Dynamism, once created, opens vistas of development and sustains economic growth in a dynamic framework. The purpose of the paper is to have a short analysis of economics of education.

Education precedes economic development. The Royal Society of Science was formed in the year 1600 in Great Britain and that became the fore-runner of the Industrial Revolution. Today no nation is untouched from the impact of the Revolution. It is the investment in education and research which lays the foundation of modern developments. We live in a time when knowledge is exploding. Many countries are committed to educational reforms that will make heavy demands on finance and resources. At the same time, they are concentrating their efforts on promoting economic growth. Their demands for investment in physical capital and for a better standard of living compete with the demands for education for extra resources. As the economy develops, the need for skilled workers, experts and generally educated people increases geometrically. Consequently, education is making new and ever-increasing demands in the economy.¹

The growth of education is partly a response to the growing wealth of society. The increased production of a growing economy makes educational expansion possible by freeing resources for its use. Formerly, education was regarded as consumption, in contrast to that, at present,

1 John Vaise and Michael Debeauvais : *Economic Aspect of Educational Development*, p. 37.



it is primarily regarded as investment. During the last one hundred years significant economic growth has been achieved only by those countries in which a high proportion of total population is found in educational institutions. As economies industrialise, urbanise and mature, their requirements for more sophisticated personnel appear to increase. The emphasis in education has shifted onward to scientific and technical education.¹

The Draft Fourth Plan put forward that "A suitably oriented system of education can facilitate and promote social change and contribute to economic growth, not only by training skilled manpower for specific tasks of development but what is perhaps even more important by creating the requisite attitudes and climate."²

The contention of educationists is to acquire knowledge and cultural standards in one sense are the privileges of the elite class. But in a more practical sense education is meaningful when it is related to employment and income-increasing process, otherwise it may lead to social unrest.³ The welfare of the whole community is tied to the ratio of the growth of income to the poor. In recent years there has been a comparative decline in the incidence of poverty.⁴

CONCEPTUAL ANALYSIS

The educational system is inter-linked functionally with the socio-economic environment. Economists like Abramovitz, Kendrick and Schultz plead that tremendous increase in per capita product in the newly developed countries derive primarily from a rise in efficiency. Technical knowledge does not expand in a traditional type of society. A progressive society generally advances economic-oriented technical knowledge which generates wide opportunities for employment and leads to a more systematic approach of production and income distribution.⁵ Investment in mankind is of prime importance in economic thinking. The returns from education, both individually and socially, are almost as high as those from physical capital. The development of the physical capital of society is not very meaningful unless there is a matching increase in the trained personnel to make use of it.

Strictly speaking, economic concept of 'human capital' defines people as capital assets which yield a stream of economic benefits. It is difficult to estimate even the direct economic benefits of investment in education and more difficult to measure its indirect effects. It is correlated with complimentary investments made in other sectors of the economy. No country can claim to have made an accurate or comprehensive assessment of the relative costs and benefits of its educational programmes.⁶

To know whether educational expenditure follows or precedes economic growth, internationally comparable figures are to be worked out and relationship between various cadres has to

- 1 Alexander L. Peaslee, "Education's Role in Development", *Economic Development and Cultural Change*, April, 1969 p. 293.
- 2 Fourth Five Year Plan (Draft), 1969-74, p. 278.
- 3 K. Santhanam, *Educational Inflation*, *Eastern Economist*, February 14, 1969, p. 266.
- 4 Eugene Smolensky (Chicago), *Investment in the Education of the Poor*, *American Economic Review*, May 1966, p. 371.
- 5 Alexander L. Peaslee, op. cit., p. 298.
- 6 Paul G. Haffman, *How to speed their economic growth*, p. 35.

be developed. Education can be considered as a factor of production. The economist's tools are adopted for analysis of costs and returns. The real value of economic evaluation lies precisely in the analysis of markets but price guidelines are very imperfect. Moreover, the production is a function of three variables : the numbers of persons productively employed, the quantity of education used in production and an aggregation of non-labour units.

It has been seen that economic and educational disparities exist side by side, the dispersion being greater in the field of education. The dispersion is larger in the case of literacy as compared to per capita income. This can partly be assessed by the migration of educated people from the less developed areas to the more developed areas. It shows a very close relationship between rate of growth of university enrolment ratios and subsequent growth of real income per capita. In a few countries the rate of increase of higher education enrolment ratios has been greater than that of growth in real income per capita. In the former case, South Africa, United Kingdom, Germany and Israel, while in the latter, France, Japan, Russia, U. S. A. and Australia are included.

The experience of countries enables us to establish an outline for allocation of resources for educational programmes. Primarily, education tops in priority, that makes the base for subsequent economic results. As regards secondary education the results in terms of growth have been excellent. After that, expansion of higher education would then be the focal point. In respect of university education, India moved from 0.218 percent to 0.93 percent in 10 years and students enrolment went from 3.35 lakhs to 9.4 lakhs during that period. In this way Japan achieved the same from 0.47 percent to 0.68 percent in 5 years, Russia from 0.35 percent to 0.89 percent in 10 years and the United States from 0.57 percent to 0.90 percent in 10 years. The last decade witnessed a spectacular inflation not only in money expansion, and population increase, but also explosion of higher education. It is gratifying to note that technology is doubling every ten years. Indian universities rose to 120 in number and three million students are enrolled in them. In this respect, it is no mean achievement for India. Any way, this growth is of conflicting nature which cannot be denied on pragmatic ground these days. Reasons attributed to this phenomenon can be inter-mingled with various disciplines.

HUMAN RESOURCE DEVELOPMENT

During the last two centuries under British rule, the objectives of educational system in India were obviously neither in conformity with the national needs, nor there were adequate means available to strengthen some aspects which did reflect the vital needs, e. g., the provision of instruction in arts, crafts, technical and vocational pursuits, although Hunter Commission (1882), Harlog Committee (1929), Sapru Committee (1934), Abbots and Woods Report (1936) and Sargent Report (1944) stressed the need for them.¹ Besides, the vacuum created for last ten years due to non-implementation of Kothari Commission recommendations hardly generated any rational concern.

The existing system of education in our country is largely unrelated to the life of the students and the life around them. It is a fact that there is a wide gulf between the actual content

1. D. Blandon and M. S. Murari Rao, *Concept of Work Experience*, Indian Education Review, New Delhi, Vol. 8, No. 1, January, 1973, p. 2.

of education, its started purpose and the real concerns of national development. One of the main tasks before the country today is to secure rapid economic development, to augment the G. N. P. and to provide a higher standard of living to the people. An essential pre-requisite for the successful accomplishment of this hard task is the provision of a close link between education, life and productivity. Education will also have to strive consciously towards development in student the right attitudes and values that are needed to a democratic and socialist society. With this end in view, a deliberated change has, therefore, to be made in the system of education.

It was, therefore, felt by the Education Commission (1964-66) that “no reform is more important or more urgent than to transform education to endeavour to relate it to life, needs and aspirations of the people and thereby make it a powerful instrument of social, economic and cultural transformation necessary for realisation of our national goals.” The world of work is becoming increasingly more technical in nature, more complex in organisation and more pervasive in its effects on society. In the emerging industrial and science-based technological society, India of tomorrow will have increased mechanisation. Thus work-experience programme is an integral part of the general education programme. Presently, certain points should be kept in view such as, considerable wastage and stagnation, recession period and setback to science education and creative knowledge, and also practical awareness. This state of education can be taken as a cyclic swing of national economy, but the reversal is bound to take place with the up-swing of the economy. Nevertheless, it is essential to emphasize the quality of manpower produced because economic growth may be hindered rather than accelerated if appropriate standards in higher education are not maintained.¹

The vocationalisation of education at the secondary and higher secondary stages is one of the major plans of the Ministry of Education, Government of India. The Ministry's blue print clearly spells out the determination of the Government to effect the gradual vocationalisation of secondary and post-secondary education. Considering the vastness of the problem, it will take 30 to 40 years to bring vocational education to the doors of the existing schools to be started. The experiment of the multi-purpose scheme could not achieve success.

Everywhere civilisations were built up by layers because each had its own particular type of educational policy.² Rapid industrialisation and agricultural modernisation have been the outcomes of a high level of literacy in all developed countries of the world. Under-developed continents are backward not so much due to shortage of capital, as due to irrational attitudes and outmoded institutions, Prof. Gunar Myrdal holds this view. The Kothari Commission is also of the opinion that “human resources are an end in themselves, without which the adequate development of physical resources is not possible. Even in the field of international arena, leadership is not a matter of power alone, it is as much a matter of policy which is a tool of education.”³

Money alone is not enough to ensure development, as man does not live by bread alone.

- 1 Q. V. Khan, *Application of man-power requirement approach to educational planning*, Indian Educational Review, New Delhi, Vol. 8. No. 1, January 1973, p. 35.
- 2 Gunar Myrdal : *Asian Drama, an enquiry into the poverty of nations*; Vol. III, 1968, p. 1623.
- 3 A. H. Hasley, Jean Flond and C. Andersian : *Education, Economy and Society*, Free Press of Glencol, 1964, p. 21.

Industrialisation is only a part of the development process. The development of a country's human resources is basic to the effective balanced development of its natural resources. The fundamental problem is not only considered as the creation of wealth but also the creation of the capacity to create wealth. The acceleration of progress depends much on the latter.

Harbinson interprets human resources development as the process of increasing the knowledge, the skills and the capacities of all the people in a society. It can be described as accumulation of human capital in economic terms. In political terms human resource development prepares people for adult participation in political processes. From the social and cultural point of view, the development of human resources unlock the door to modernisation.¹ Education is the appropriate answer to the above aspects of development.

It is evident that the tide of education is mounting with rapidity. Higher population growth has resulted in increased enrolments at all levels of education, particularly at the higher levels, and there is a marked rise in consciousness for education. It is necessary that students' energies are channelled into meaningful and challenging pursuits, science represents a cumulative activity of mankind and its rate of growth is extremely rapid. Automation is the rapid substitution of work by knowledge and concept of work by human hands. Alfred Marshall emphasized the importance of education "as a national investment and in his view the most valuable of all capital is that invested in human beings."²

A contrary view is also expressed by Kuznets, Clark and Maddison that university enrolment ratio exceeds real income growth ratio per capita. It is to be accepted in a sense that a rising nation is expected to bear a certain shock of imbalance initially, but later on a mutual adjustment takes place in all disciplines in a free society. In India there are other reasons which can be held also responsible, say, political weakness, student unrest, declining marginal productivity and so on. The Crowther Report emphatically supported that the pool of talent is nowhere near exhausted, a more efficient pump can reduce the present wastage of talent that exists in every country. Thus there is no talent barrier to the development of education. And a stream of demand for high talented manpower is never exhausted in the days of technological complexity. India has been importing human capital in sophisticated fields of development—oil exploration is a current example. This import substitution seems essential in its due course.

INVESTMENT PATTERN

The amount of emphasis given to education in the allocation of resources determines the investment pattern and entire educational structure at all levels. Prof. Gunnar Myrdal anticipates with growing consciousness of education that by 1980 every Asian country should be devoting 4 percent to 5 percent of its G. N. P. on education (Karachi Plan, UNESCO & ECAFE Report, April, 1962). The rate of growth of educational expenditure in Indian Plans has been approximately double of the rate of growth of national income at current prices. It is approximately 1.6 times the rate of growth of enrolment and 1.7 times the rate of growth in the number of teachers.

The difference in quantum is so glaring that the amount per capita spent in India and Asian

1 Fredrick Harbinson and Charles Myres : *Education and Economic Growth*, P. V.

2 David Ovens : *Investment in Human Capital*, p. 216.



countries comes roughly about one hundredth of that spent by a highly industrialised country like U. S. A. This determines a close correlation between the level of education and the level of economic growth. Indian masses cannot easily resort to a significant amount of disposal surplus to spare for education purposes. Nevertheless, during the last decade the increase of educational expenditure has been much faster than the growth of economy.

The pattern of allocation of resources to different sectors of economy varies from country to country and from time to time. Expenditure on higher education is about 33 percent at present and that was reduced to 27 percent in 1975-76, the rest is spent on school education. To help the process of transformation of the national economy towards social justice, primary education needs to be intensified. There is no denying the fact that higher education of research and technology add to competence. Brain drain of India in various technologies and medical science bear testimony to the fact. A judicious balance can be the only solution, befitting changing circumstances. Average expenditure in the West is 100 to 300 dollars per capita, and public expenditure at the higher level seems to be 5 to 7 times of that at the secondary level. The income elasticity of demand for education grows high with the affluence of the society.

Financial resources have often limited the growth of education and are in some respects the crucial link between education and economics. Basically differences in education arise from capacities to spend money on education. The government share has been increasing considerably. The Centre helps by spending directly on education and by giving grants-in-aid to States, outside the award of the Finance Commission. A lion's share of this total is spent on higher education, buildings and scholarships.

Resources of the State Governments are the major force governing education. A judicious allocation of grants-in-aid from the Centre to the States and the States to the Local Bodies is necessary. Local Bodies finance education in a small percentage and this trend seems to be declining.

The contribution by fees is very high in India. There is a limit beyond which fees cannot be increased. This source will dry up as time passes, so will funds from other sources. Cost of education is mounting up due to an increase in the emoluments of teachers, provision of better facilities in educational institutions, and increases in the number of students. Voluntary charitable individuals and institutions can hardly cover the deficiency. Ultimately, the extent of educational advancement will largely depend upon the resource that a State government can muster.

MAN-POWER PLANNING

The international movements of high level man-power reflect that "the under-developed countries need high level of man-power just as urgently as they need capital.....high talented man-power requires the longest 'lead time' for its creation. Dams, power-stations, textile factories and steel mills can be constructed in a few years; but it takes 10 to 15 years to develop managers, engineers and the administration to operate them. The existence of such man-power, however, is essential if the countries are to achieve self-sustained growth." Dimension of technological skills have expanded very wide and the adjustment of man-power in areas already explored need acquaintance. In technical evaluation of the OECD Mediterranean Regional Project, R. C. Hollister stated that man-power requirements have a significance on education output.

On the other hand, it is paradoxical to point out that there is a world-wide frustration among the educated youth and socio-economic forces are playing havoc, and consequently, student unrest has emerged on the world scene. Student frustration is largely related to the lack of employment opportunities or to the fact of rising expectations which remain unfulfilled owing to economic and occupational growth failing to keep pace. The main lacuna in the present educational system is an absence of direct link between education and employment. In the present situation, when the output in some sectors far exceeds the possibilities of employment, efforts should be made to achieve a balance in a few selected sectors where members are manageable. It is necessary to prepare an integrated plan of development so that every job is filled with a trained personnel.

The country is suffering from a triple inflation :

- (1) The most serious is that of population;
- (2) The inflation of money which has played havoc with the economy; and
- (3) The third is that of education.

The annual requirements of the country in respect of additions to the national stock of higher educated man-power should be assessed in advance with as much precision and firmness as may be found practicable. The main occupational categories are :

- (1) Higher educated teaching man-power;
- (2) Engineering man-power;
- (3) Scientific and technical man-power;
- (4) Agricultural and Veterinary specialists; and
- (5) Public administration and managerial man-power.

Arrangements are necessary to ensure that higher educated man-power may not remain unemployed or wastefully employed. It was also hinted by ex-President V. V. Giri that the supply of educated and technical man-power has not been tailored to the needs of a dynamic economy.¹

As man-power is not homogeneous, man-power planning has to concern itself with different categories, such as technologists, doctors, engineers, managers and crafts-men each having its own level of education and specialisation; wastages should be reduced to the minimum. Optional utilisation of man-power, skilled and unskilled, is called for and the 'open door' policy of unrestricted admission to higher education needs a practical approach.

CONCLUSION

The situation is alarming in the country. The country's economy faces a great challenge in the educated surpluses. Self-employment is the dire need. For that an inter-disciplinary approach to education and economic growth needs very thoughtful action at this juncture. A highly educated elite on hierarchical pattern is out of question; general masses are to be provided ample opportunities of education. A selective approach in diverting human resources into right channels is a paramount question. It is a test of the government policy and its implementation.

1 V. V. Giri, *Jobs for our millions*, Hindusthan Times, March 9, 1970, p. 7.



Mass consciousness of democratic rights has grown up and it should be coupled with a high sense of maturity, sobriety and integrity. Impulses so developed by the right type of education will go a long way to contribute to productivity at work. Educated persons resorting to 'desk work' should be diverted to various fields of employment in a developing economy. False concept of prestige and power should not come in the way to accept hard jobs. A very important lesson is to be learnt from the Americans and the Japanese in this respect. Even a daughter of an Ambassador will not hesitate to take the job of washing dishes in an American restaurant; thereby she will earn money and purchase a second-hand car. A national upsurge of socio-economic conscience has to come up to pave the way for future prosperity. This is the job of education to perform if other disciplines join hands. But as Ashok Mehta rightly observes that it should be properly safeguarded that whatever is woven by economics may not be further unwoven by politics.



Constant ! Wishless ! Absolute ! Free
Knower ! Seer ! Soul is me.

× × ×

I am what Supreme being is,
What myself is that God is.
With this sole apparent difference,
Here—'Passions' there—'Indifference'.

× × ×

My real self like Siddhas is,
Infinite Power ! Knowledge ! and Bliss,
Losing knowledge, being aspirant,
I am left a beggar - ignorant.

—Sahajānanda