

GIST OF N.C.E.R.T

HUMAN CAPITAL AND HUMAN DEVELOPMENT

The two terms sound similar but there is a clear distinction between them.

Human development is based on the idea that education and health are integral to human wellbeing because only when people have the ability to read and write and the ability to lead a long and healthy life, they will be able to make other choices which they value. Human capital treats human beings as a means to an end being the increase in productivity. In this view, any investment in education and health is unproductive if it does not enhance output of goods and services. In the human development perspective human beings are ends themselves. Human welfare should be increased through investments in education and health even if such investments do not result in higher labour productivity. Therefore, basic education and basic health are important in themselves, irrespective of their contribution to labour productivity. In such a view, every individual has a right to get basic education and basic health care, that is, every individual has a right to be literate and lead a healthy life.

HUMAN CAPITAL FORMATION IN INDIA: GREAT PROSPECTS

In this section we are going to analyse human capital formation in India. We have already learnt that human capital formation is the outcome of investments in education, health, on-the-job training, migration and information of these education and health are very important sources of human capital formation. We know that ours is a federal country with a union government, state governments and local governments (Municipal Corporations, Municipalities and Village Panchayats). The Constitution of India mentions the functions to be carried out by each level of government. Accordingly, expenditures on both education and health are to be carried out simultaneously by all the three tiers of the government.

Do you know who takes care of education and health in India? Before we take up the analysis of the education sector in India, we will look into the need for government intervention in education and health sectors. We do understand that education and health care services create both private and social benefits and this is the reason for the existence of both private and public institutions in the education and health service markets. Expenditures on education and health make substantial long-term impact and they cannot be easily reversed; hence, government intervention is essential. For instance, once a child is admitted to a school or health care centre where the required services are not provided, before the decision is taken to shift the child to another institution, substantial amount of damage would have been done.

Moreover, individual consumers of these services do not have complete information about the quality of services and their costs. In this situation, the providers of education and health services acquire monopoly power and are involved in exploitation. The role of government in this situation is to ensure that the private providers of these services adhere to the standards stipulated by the government and charge the correct price.

In India, the ministries of education at the union and state level, departments of education and various organisations like National Council of Educational Research and Training (NCERT), University Grants Commission (UGC) and All India Council of Technical Education (AICTE) regulate the education sector. Similarly, the ministries of health at the union and state level, departments of health and various organisations like Indian Council for Medical Research (ICMR) regulate the health sector.

In a developing country like ours, with a large section of the population living below the poverty line, many of us cannot afford to access basic education and health care facilities. Moreover, a substantial section of our people cannot afford to reach super specialty health care and higher

education. Furthermore, when basic education and health care is considered as a right of the citizens, then it is essential that the government should provide education and health services free of cost for the deserving citizens and those from the socially oppressed classes. Both, the union and state governments, have been stepping up expenditures in the education sector over the years in order to fulfil the objective of attaining cent per cent literacy and considerably increase the average educational attainment of Indians.

EDUCATION SECTOR IN INDIA

Growth in Government Expenditure on Education: This expenditure by the government is expressed in two ways (i) as a percentage of 'total government expenditure' (ii) as a percentage of Gross Domestic Product (GDP).

The percentage of 'education expenditure of total government expenditure' indicates the importance of education in the scheme of things before the government. The percentage of 'education expenditure of GDP' expresses how much of our income is being committed to the development of education in the country. During 1952-2002, education expenditure as percentage of total government expenditure increased from 7.92 to 13.17 and as percentage of GDP increased from 0.64 to 4.02. Throughout this period the increase in education expenditure has not been uniform and there has been irregular rise and fall. To this if we include the private expenditure incurred by individuals and by philanthropic institutions, the total education expenditure should be much higher.

Elementary education takes a major share of total education expenditure and the share of the higher / tertiary education (institutions of higher learning like colleges, polytechnics and universities) is the least. Though, on an average, the government spends less on tertiary education, 'expenditure per student' in tertiary education is higher than that of elementary. This does not mean that financial resources should be transferred from tertiary education to elementary education. As we expand school education, we need more teachers who are trained in the higher educational institutions; therefore, expenditure on all levels of education should be increased.

The per capita education expenditure differs considerably across states from as high as Rs. 34440 in Lakshadweep to as low as Rs. 386 in Bihar. This leads to differences in educational

opportunities and attainments across states.

One can understand the inadequacy of the expenditure on education if we compare it with the desired level of education expenditure as recommended by the various commissions. More than 40 years ago, the Education Commission (1964-66) had recommended that at least 6 percent of GDP be spent on education so as to make a noticeable rate of growth in educational achievements.

In December 2002, the Government of India, through the 86th Amendment of the Constitution of India, made free and compulsory education a fundamental right of all children in the age group of 6-14 years. The Tapas Majumdar Committee, appointed by the Government of India in 1998, estimated an expenditure of around Rs. 1.37 lakh crore over 10 years (1998-99 to 2006-07) to bring all India children in the age group of 6-14 years under the purview of school education. Compare to this desired level of education expenditure of around 6 per cent of GDP, the current level of a little over 4 per cent has been quite inadequate. In principle, a goal of 6 per cent needs to be reached—this has been accepted as a must for the coming years.

In the Union Budget 2000-05, the Government of India levied a 2 per cent 'education cess' on all union taxes. The government estimated to get a revenue of rs. 4,000-5,000 crore and the entire amount was earmarked for spending on elementary education. In addition to this, the government sanctioned a large outlay for the promotion of higher education and new loan schemes for students to pursue higher education.

Education Achievements in India: Generally, educational achievements in a country are indicated in terms of adult literacy level, primary education completion rate and youth literacy rate. These statistics for the years 1990 and 2000 are given.

Education Achievements in India

Sl.No.	Particulars	1990	2000
1.	Adult Literacy Rate (per cent of people aged 15+)		
	1.1 Male	61.9	68.4
	1.2 Female	37.9	45.4
2.	Primary completion rate (per cent of relevant age group)		

Sl.No.	Particulars	1990	2000
	2.1 Male	78	85
	2.2 Female	61	69
3.	Youth literacy rate (per cent of people aged 15+ to 24)		
	3.1 Male	76.6	79.7
	3.2 Female	54.2	64.8

FUTURE PROSPECTS

Education for All — Still a Distant Dream: Though literacy rates for both — adults as well as youth — have increased, still the absolute number of illiterates in India is as much as India's population was at the time of independence. In 1950, when the Constitution of India was passed by the Constituent Assembly, it was noted in the Directives of the Constitution that the government should provide free and compulsory education for all children up to the age of 14 years within 10 years from the commencement of the Constitution. Had we achieved this, we would have cent per cent literacy by now.

Gender Equity — Better than Before: The differences in literacy rates between males and females are narrowing signifying a positive development in gender equity; still the need to promote education for women in India is imminent for various reasons such as improving economic independence and social status of women and also because women education makes a favourable impact on fertility rate and health care of women and children. Therefore, we cannot be complacent about the upward movement in the literacy rates and we have miles to go in achieving cent per cent adult literacy.

Higher Education — a Few Takers: The Indian education pyramid is steep indicating lesser and lesser number of people reaching the higher education level. Moreover, the level of unemployment among educated youth is the highest. data, in 2000, the unemployment rate of educated youth (Secondary Education and above) was 7.1 per cent and unemployment of people with up to primary education was only 1.2 per cent. Therefore, the government should increase allocation for higher education and also improve the standard of higher education institutions, so that students are imparted employable skills in such institutions.

The economic and social benefits of human capital formation and human development are well known. The union and state governments in India have been earmarking substantial financial outlays for development of education and health sectors. The spread of education and health services across different sectors of society should be ensured so as to simultaneously attain economic growth and equity. India has a rich stock of scientific and technical manpower in the world. The need of the hour is to better it qualitatively and provide such conditions so that they are utilised in our own Country.

INTRODUCTION

We know that studied how poverty was a major challenge facing India. We also came to know that the majority of the poor live in rural areas where they do not have access to the basic necessities of life.

Agriculture is the major source of livelihood in the rural sector. Mahatma Gandhi once said that the real progress of India did not mean simply the growth and expansion of industrial urban centres but mainly the development of the villages. This idea of village development being at the centre of the overall development of the nation is relevant even today. Why is this so? Why should we attach such significance to rural development when we see around us fast growing cities with large industries and modern information technology hubs? It is because more than two-third of India's population depends on agriculture that is not productive enough to provide for them; one-third of rural India still lives in abject poverty. That is the reason why we have to see a developed rural India if our nation has to realise real progress.

WHAT IS RURAL DEVELOPMENT?

Rural development is a comprehensive term. It essential focuses on action for the development of areas that are lagging behind in the overall development of the village economy. Some of the areas which are challenging and need fresh initiatives for development in India include.

- Development of human resources including
 - literacy, more specifically, female literacy, education and skill development
 - health, addressing both sanitation and public health
- Land reforms
- Development of the productive resources of each locality

- Infrastructure development like electricity, irrigation, credit, marketing, transport facilities including construction of village roads and feeder roads to nearby highways, facilities for agriculture research and extension, and information dissemination
- Special measures for alleviation of poverty and bringing about significant improvement in the living conditions of the weaker sections of the population emphasizing access to productive employment opportunities.

All this means that farming communities have to be provided with various means that help them increase the productivity of grains, cereals, vegetables and fruits. They also need to be given opportunities to diversify into various non-farm productive activities such as food processing.

Giving them better and more affordable access to healthcare, sanitation facilities at workplaces and homes and education for all would also need to be given top priority for rapid rural development.

It was observed earlier that although the share of agriculture sector's contribution to GDP was on a decline, the population dependent on this sector did not show any significant change. Further, after the initiation of reforms, the growth rate of agriculture sector decelerated to 2.3 per cent per annum during the 1990s, which was lower than the earlier years. Scholars identify decline in public investment since 1991 as the major reason for this. They also argue that inadequate infrastructure, lack of alternate employment opportunities in the industry or service sector, increasing casualisation of employment etc. further impede rural development. The impact of this phenomenon can be seen from the growing distress witnessed among farmers across different parts of India. Against this background, we will critically look at some of the crucial aspects of rural India like credit and marketing systems, agricultural diversification and the role of organic farming in promoting sustainable development.

AGRICULTURAL MARKET SYSTEM

Vegetables and fruits that we consume daily come from different parts of the country? The mechanism through which these goods reach different places depends on the market channels. Agricultural marketing is a process that involves the assembling, storage, processing, transportation packaging grading and distribution of different agricultural commodities across country.

Prior to independence, farmers, while selling their produce to traders, suffered from faulty weighing and manipulation of accounts. Farmers who did not have the required information on prices prevailing in markets were often forced to sell at low prices. They also did not have proper storage facilities to keep back their produce for selling later at a better price. Do you know that even today, more than 10 per cent of goods produced in farms are wasted due to lack of storage? Therefore, state intervention became necessary to regulate the activities of the private traders.

Let us discuss four such measures that were initiated to improve the marketing aspect. The first step was regulation of markets to create orderly and transparent marketing conditions. By and large, this policy benefited farmers as well as consumers. However, there is still a need to develop about 27,000 rural periodic markets as regulated market places to realise the full potential of rural markets. Second component is provision of physical infrastructure facilities like roads, railways, warehouses, godowns, cold storages and processing units. The current infrastructure facilities are quite inadequate to meet the growing demand and need to be improved. Cooperative marketing, in realising fair prices for farmers' products is the third aspect of government initiative. The success of milk cooperatives in transforming the social and economic landscape of Gujarat and some other parts of the country is testimony to the role of cooperatives. However cooperatives have received a setback during the recent past due to inadequate coverage of farmer members, lack of appropriate link between marketing and processing cooperatives and inefficient financial management. The fourth element is the policy instruments like (i) assurance of minimum support prices (MSP) for 24 agricultural products (ii) maintenance of buffer stocks of wheat and rice by Food Corporation of India and (iii) distribution of food grains and sugar through PDS. These instruments are aimed at protecting the income of the farmers and providing foodgrains at a subsidised rate to the poor. However, despite government intervention, private trade (by moneylenders, rural political elites, big merchants and rich farmers) predominates agricultural markets. The quantity of agricultural products, handled by the government agencies and consumer cooperatives, constitutes only 10 per cent while the rest is handled by the private sector.



Agricultural marketing has come a long way with the intervention of the government in various forms. The rapid commercialisation of agriculture in the era of globalisation offers tremendous opportunities for value addition of agro-based products through processing and this needs to be encouraged apart from awareness and training of the farmers to improve their marketing ability.

Emerging Alternate Marketing Channels: It has been realised that if farmers directly sell their produce to consumers, it increases their share in the price paid by the consumers. Some examples of these channels are Apni Mandi (Punjab, Haryana, Rajasthan); Hadaspar Mandi (Pune); Rythu Bazars (vegetable and fruit market in Andhra Pradesh) and Uzhavar Sandies (farmers markets in Tamil Nadu). Further, several national and multinational fast food chains are increasingly entering into contracts/alliances with farmers to encourage them to cultivate farm products (vegetables, fruits, etc.) of the desired quality by providing them with not only seeds and other inputs but also assured procurement of the produce at pre-decided prices. Such arrangements will help in reducing the price risks of farmers and would also expand the markets for farm products.

SUSTAINABLE DEVELOPMENT AND ORGANIC FARMING

In recent years, awareness of the harmful effect of chemical-based fertilisers and pesticides on our health is on a rise. Conventional agriculture relies heavily on chemical fertilizers and toxic pesticides etc., which enter the food supply, penetrate the water sources, harm the livestock, deplete the soil and devastate natural eco-systems. Efforts in evolving technologies which are eco-friendly are essential for sustainable development and one such technology which is eco-friendly is organic farming. In short, organic agriculture is a whole system of farming that restores, maintains and enhances the ecological balance. There is an increasing for organically grown food to enhance food safety throughout the world.

Benefits of Organic Farming: Organic agriculture offers a means to substitute costlier agricultural inputs (such as HYV seeds, chemical fertilisers, pesticides etc. with locally produced organic inputs that are cheaper and thereby generate good returns on investment. Organic agriculture also generates incomes through international exports as the demand for organically grown crops is on a rise. Studies across countries

have shown that organically grown food has more nutritional value than chemical, farming thus providing us with healthy foods. Since organic farming requires labour input than conventional farming, India will find organic farming an attractive proposition. Finally, the produce is pesticide-free and produced in an environmentally sustainable way.

Every Village — a Knowledge Centre

S. Swaminathan Research Foundation, an institution located in Chennai Tamil Nadu, with support from Sri Ratan Tata Trust, Mumbai, has established the Jamshedji Tata National Virtual Academy for Rural Prosperity. The Academy envisaged to identify a million grassroot knowledge workers who will be enlisted as Fellows of—the Academy. The programme provides an info-kiosk (PC with Internet and video conferencing facility, scanner, photocopier, etc.) at a low cost and trains the kiosk owner; the owner then provides different services and tries to earn a reasonable income. The Government of India has decided to join the alliance by providing financial support of Rs 100 crore.

Popularising organic farming requires awareness and willingness on the part of farmers to adapt to new technology. Inadequate infrastructure and the problem of marketing the products are major concerns which need to be addressed apart from an appropriate agriculture policy to promote organic farming. It has been

Organic Food

Organic food is growing in popularity across the world. Many countries have around 10 per cent of their food system under organic farming. There are many retail chains and supermarkets which are accorded with green status to sell organic food. Moreover, organic foods command higher prices of around 10-100 per cent than conventional ones.

observed that the yields from organic farming are less than modern agricultural farming in the initial years. Therefore, small and marginal farmers may find it difficult to adapt to large scale production. Organic produce may also have more blemishes and a shorter shelf life than sprayed produce. Moreover choice in production of off



season crops quite limited in organic farming. Nevertheless, organic farming helps in sustainable development of agriculture and India has a clear advantage in producing organic products for both domestic and international markets.

CONCLUSION

It is clear that until and unless some spectacular changes occur, the rural sector might continue to remain backward. There is a greater need today to make rural areas more vibrant through diversification into dairying, poultry, fisheries, vegetables and fruits and linking up the rural production centres with the urban and foreign (export) markets to realise higher returns on the investments for the products. Moreover, infrastructure elements like credit and marketing, farmer- friendly agricultural policies and a constant appraisal and dialogue between farmers' groups and state agricultural departments are essential to realise the full potential of the sector.

Today we cannot look at the environment and rural development as two distinct subjects. There is need to invent or procure alternate sets of ecofriendly technologies that lead to sustainable development in different circumstances. From these, each rural community can choose whatever will suit its purpose. First of all, then, we need to learn from, and also try out when found relevant, practices from the available set of 'best practice' illustrations (which means success stories of rural development experiments that have already been carried out in similar conditions in different parts of India), to speed up this process of 'learning by doing'.

0.8 hectare but accounting for 20 per cent of India's cultivable land. Therefore, organic agriculture is more profitable in terms of money and soil conservation in the long run.

Organically Produced Cotton in Maharashtra

In 1995, when (an NO) first suggested that cotton, iE1gesf of chemical pesticides, could be grown organically the then Director of the Central Institute for Cotton Research, Nagpur, famously remarked, "Do you want India to go naked?" At present, as many as 130 farmers have committed 1,200 hectares of land to grow cotton organically on the International Federation of Organic Agriculture Movement's standards. The produce was later tested by the German Accredited Agency, AGRECO, and found to be of high quality. Kisan Mehta feels that about 78 per cent of Indian farmers are marginal farmers owning about less than

