UG S3-02
(IDC)

FOUR YEAR BACHELOR'S DEGREE COURSE

(CBCS in Accordance with NEP 2020)

SEMESTER - III

ECONOMICS OF EDUCATION

Indira Miri School of Education

KRISHNA KANTA HANDIQUI STATE OPEN UNIVERSITY

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COURSE INTRODUCTION (COURSE UG ED S3-03, IDC3)

This courses is multidisciplinary in nature. In this Inter Dicipilinary Course UG ED S3 03 IDC3, we are going to discuss the need and importance of economics of education. This blocks contain 11 units. In this Block of the Course, the One Unit Economics of Education, Second Unit Education and Economic Development, Third Unit Economics of Education Policy, Fourth Unit Education as a Public Good, Five Unit Human Capital Approaches to Education, Six Unit Education and Manpower Planning. Seven Unit deals with the pattern of financing in higher and technical education system in India. The Eight Unit discusses the changing pattern of livelihood, labour market and labour mobility.concept of economics of education, relationship between education and economic development and the nature of economic policy. The Nine Unit explores the factors behind the brain drain from India. and how education is considered a public good. The Ten Unit deals with the lacuna and discrimination of education in terms of access, equity and quality and how far the education for all is yet to be fully harnessed. The Eleventh Unit explain the importance of fund mobilisation in the educational institutions.

While going through a unit, you will notice some along-side boxes, which have been included to help you know some of the difficult, unseen terms. Some “ACTIVITY’ (s) have been included to help you apply your own thoughts. Again, we have included some relevant concepts in “LET US KNOW” along with the text. And, at the end of each section, you will get “CHECK YOUR PROGRESS” questions. These have been designed to self-check your progress of study. It will be better if you solve the problems put in these boxes immediately after you go through the sections of the units and then match your answers with “ANSWERS TO CHECK YOUR PPROGRESS” given at the end of each unit.

CONTENTS

Page No.

UNIT 1 : Economics of Education 7-29

Meaning of economics of education, forms of expenditure in education, sources of revenue in education, educational financing at variouslevels of education.

UNIT 2 : Education and Economic Development 30-44

Concept of Education and Economic Development, relationship between education and economic development.

UNIT 3 : Economics of Education Policy 45-59

Need of education policy in India, education policy before indepen-dence, education policy after independence, policy issues of financ-ing education in India.

UNIT 4 : Education as a Public Good 60-67

Meaning of public good, difference between public good and private good, whether education is public good or private good.

UNIT 5 : Human Capital Approaches to Education 68-79

Concept, difference between human capital and physical capital, sources of human capital formation, theories of human capital.

UNIT 6 : Education and Manpower Planning 80-90

Importance of manpower planning, education and manpower plan-ning, man-power planning and economic growth, problems of man-power planning in India.

UNIT 7 : Financing in Higher Education **91-100**

Importance of financing the higher education, types of expenditure in higher education, magnitude and pattern of expenditure in higher education, problems of financing the higher education in India.

UNIT 8 : Livelihood, Labour Market and Labour Mobility **101-130**

Sectoral growth/ changes of workforce in India/North East India/ Assam, underemployment and unemployment, labour mobility in North east India, factors for outmigrate, outmigration of skilled personnel i.e. brain drain.

UNIT 9 : Education and Brain Drain **131-142**

Concept, factors for brain drain, out-migration of the skilled personnel.

UNIT 10 : Access and Equity in Education **143-162**

Meaning of equity, access and reservation,constitutional provisions to ensure equity, access and reservation, education a fundamental right, gender inequality in education, improving access in education.

UNIT 11: Self Financing and Fund Mobilisation in the Educational Institutions **163-173**

Cost of education, fund mobilisation in the educational institutions.

UNIT 1 : ECONOMICS OF EDUCATION

UNIT STRUCTURE

1.1 Learning objectives

1.2 Introduction

1.3 Meaning of Economics of Education

1.4 Forms of Expenditure in Education

- 1.4.1 Expenditure on Plan and Non-plan Heads
- 1.4.2 Recurring and Non-Recurring Expenditure
- 1.4.3 Direct and Indirect Expenditure

1.5 Sources of Revenue in Education

1.6 Financing at Various Levels of Education

- 1.6.1 Elementary Education
- 1.6.2 Secondary Education
- 1.6.3 Higher Education

1.7 Let Us Sum Up

1.8 Further Reading

1.9 Answers to Check Your Progress

1.10 Model Questions

1.1 LEARNING OBJECTIVES

After going through this unit, you will be able to :

- state the meaning of economics of education,
- identify the forms of expenditure in education,
- explain the different sources of revenue in education,
- acquaint yourself with educational financing at various levels of education.

1.2 INTRODUCTION

In the previous course, you have learnt about education and its related aspects. One of the most important aspects of educational organisation is finance. It is a field as broad and wide as education itself. Every aspect of

educational activity is related to educational finance or availability of funds. The roots of educational finance are found in basic disciplines like economics, political science, law, taxation, statistics etc. Education is directly linked with national development. It is the only source through which we can bring desirable changes in the habits, attitudes, values, and skills of the people and thereby acquire the qualities of good citizenship. It is because of this that every society maintains a large number of schools, colleges and other educational institutions which require an enormous amount of money. It is the duty of educational administration to see that the money is spent most judiciously and productively in the interest of the country as well as in the interest of individuals of the society.

With the advancement of science and technology, the development of industry and commerce have brought rapid changes in the field of education. There is demand for more funds for rendering some special services such as guidance and counselling, vocational and technical education, education for the gifted and the handicapped, reduction of teacher-student ratio, individualised instruction etc. All these require financial investment in education. The general public is also watching how educational organisations are utilising their funds.This unit deals with financial aspects of education, its different sources and educational financing at various levels of education.

1.3 MEANING OF ECONOMICS OF EDUCATION

At the very outset it is necessary for us to understand what economics of education is. Economics of education is concerned with the assessment of the contribution of education to the economic growth of the country. It deals with the systematic and deliberate planning of the educational system in order to accelerate economic development.

We know that education is the most important instrument for national development. It helps to develop an individual's personality, intellect and character. The achievement of the ambitions of the country depends upon the knowledge, skill, interests and values of its citizen. It implies that the money spent on education is an investment and the future generation

provides the return upon this investment to the nation. Improvement in the quality of people can have dramatic effects on the economic growth of a country. Thus, it indicates that education and economic development have a direct relationship with each other. Therefore, for the development of a nation it is necessary to plan education properly within the framework of the finance available for it. During the British period there was no correlation between national progress and education and the same situation continued for a long time. But in the last few decades, an important feature of educational planning has been that education and economic development were brought into direct relationship with each other. There is no doubt that only through proper planning of education alone we can bring about the welfare of the people as well as that of the nation. So, economics and education must go hand in hand.

1.4 FORMS OF EXPENDITURE ON EDUCATION

Educational expenditure includes all financial charges incurred by schools for goods and services. Ordinarily, it refers the to charges of the current year and does not include the payments made for the services of the previous year or payment to be rendered in future period. In fact, the schools have to incure expenditure on different heads. Expenditure can be classified into different types, such as *plan and non-plan expenditure, recurring and non-recurring expenditure* and *direct and indirect* expenditure.

1.4.1 Expenditure on Plan and Non-plan Head

Expenditure of a school can be grouped under two heads-plan and non-plan. Expenditure under plan heads include all expenses for developmental activities like construction of new school building, introducing new programmes etc. Expenditure under non-plan heads include all expenses relating to the ongoing and regular programmes, maintenance etc.

1.4.2 Recurring Expenditure and Non-Recurring Expenditure

Recurring expenditure refers to those expenditure which occur regularly every year. This includes expenditure on salary component, office contingencies, electricity dues, water charges, telephone expenses, maintenance expenditure etc. Non-recurring expenditure refers to those expenditure whcih do not occur regularly every year. This includes expenditure on special programmes, purchase of aids and equipments for science laboratory, library books etc. Such expenditure may not occur subsequently.

1.4.3 Direct and Indirect Expenditure

The expenditure incurred for the maintenance and development of education is classified as direct and indirect expenditure. The amount spent for directly running an institution and which can be specifically identified with reference to the objects of expenditure such as salaries of teaching staff and non-teaching staff, equipments and other appliances, come under 'direct expenditure'. There are certain types of expenditure which can not be classified specifically on the basis of the functions or actitivites or objects and such expenses are termed as indirect expenditure. For instance, the amount spent for the maintenance of a directorate or inspectorate for supervising higher educational institutions, for awarding scholarships, for the equipment and furniture or the expenses for repairing buildings, hostels and other miscellaneous items are termed as 'indirect expenditure'. Although the expenditure on education are divided mainly into these two types, there cannot be a rigid distinction between these two. Sometimes, it is a matter of policy and philosophy that determines whether the items of expenditure should be considered direct or indirect expenditure.

The total expenditure on introductory education is quite low. The major share is spent on school education, and with the

industrialisation of society, the expenditure upon education has risen. Expenditure is also rising because education is being made compulsory and universal.



CHECK YOUR PROGRESS

Q 1: What is economics of education?

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Q 2: Name the main types of expenditure on education.

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Q 3: List the indirect expenditure on education.

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1.5 SOURCE OF REVENUE IN EDUCATION

Availability of financial resources determines how the system of education will be financed. The increase in the number of schools and the increasing demand for buildings, staff and equipments involves a huge amount of money and makes a considerable claim on the country's financial resources. The money spent upon education in India does not come from any one single source. There are several sources for raising the revenue for financing education. These are also known as the methods of financing education or resources for educational financing. The central, state or regional, and local governments bear the burden of this expenditure. However, voluntary donations as well as donations from religious institutions are also included in resources for educational financing.

The pattern of expenditure by Union and State Governments on a particular sector reflects the priority for the sector in public policies. In this regard, the recommendations of the Kothari Education Commission (1964-66) on the issue of government financing of education are important benchmarks. The commission estimated the financial requirements of the educational system in India up to 1985-86, and recommended that “if

education is to develop adequately, the proportion of Gross National Product (GNP) allocated to education will rise to 6.0 per cent in 1985-86".

Because of the spread of education, the central and state governments will have to arrange for about 90 percent of the total expenditure on education. Accepting the importance of local agencies and voluntary donations, the Kothari Education Commission stated that although it is true that the major share of responsibility for supporting education should fall on the government, it does not appear reasonable to put the entire financial burden for education upon the central government, since this will eliminate all incentives in financial matters among schools and local agencies. Though the finance thus made available may not amount to much, the fact remains that the administrative system under which this initiative functions or finds encouragement have great importance from the educational viewpoint. These initiatives or enterprises encourage the guardians and local elements to take interest in education and bring out improvements in the standards of education (Report of the Kothari Education Commission, p.537)

In view of the above, we may outline the sources of revenue in education in terms of the following—

Government Funds :

Since 1813, this source has been increasing in India, and presently it forms the largest single source of educational finance in any country. It includes the amounts of money received from the Central Government, State Government, University Grants Commission (UGC), National Council for Educational Research and Training (NCERT), and Distance Education Bureau (DEB). The central government may give grants either directly or through their autonomous bodies like UGC, NCERT or other bodies. These grants are always shown separately in the budget. Grants are the assignments in terms of money or material made by one government unit to another, i.e., from central government to state government or to local bodies. These grants also include contributions from government to private bodies such as private schools, universities, education boards, etc.

Donations from local autonomous bodies :

This category includes district boards, municipal boards, zila parishads

and panchayat samitis. The money received from these bodies is out of their general funds or the special taxes levied by them for education. These bodies are responsible for organising various social services including education. Their source of income, in general, is the educational cess levied in the local area. The sources of income in cities are more than in rural areas, as more money is collected by the municipalities. The municipalities can levy cess for all buildings and landed property though it depends upon the size of the population and the means available. The main responsibility of the local bodies in the past had been the primary education. But, now its boundaries are extending to other levels and areas of education also.

Endowments and Land Grants :

This source includes donation of land, buildings, equipment, cash etc. Endowments are the sums of money, the principals of which are to be maintained intact, and only the income from the interest on the principal amount may be consumed. Many schools and institutions in the past were supported largely from endowment funds. Many rulers, feudal lords used to donate funds for financing education. Many religious and philanthropy trusts also used to make provision for allocations of funds for education. Land grant scheme has been quite popular in ancient India and during the medieval times. Even today, this practice is going on. According to this method, some land are donated to the educational institution by the ruler, zamidar, some individual or by some organisations. The income generated from the land becomes a permanent source of income for the institution. The institution may use it to meet the expenditure of any type, such as- scholarship for the poor and needy students, renovation of school building, buying equipment etc. The authorities concerned should try to make the best use of it by planning everything judiciously and impartially.

Fee :

All kinds of money collected from the students are known as fee. The institution charges various kinds of fee from the students, such as, tuition fee, magazine fee, games and sports fee, library fee, building development fee etc. In ancient India, in order to meet the cost of maintenance, students used to raise food, reared cattle and did farming,

gardening etc. Gandhiji's scheme of basic education put forth the idea of self supporting education. For the students, learning was co-related with life situations through some practical work, such as, spinning, weaving, farming, making handicraft etc. along with the learning of different subjects like arithmetic, language and social studies. Students developed sense of love for work, dignity of labour and sense of responsibility. But, the scheme was criticised on the ground that it curtails the freedom of the students, that their potentialities are not fully realised and it also burdens the mind of the learners.

The government also lays down certain rules for fee exemption for the students of different categories. The government itself reimburses their amount. Some fee charged for specific purposes such as bus fee, mid-day meal fee etc. are excluded from the school deposit. There are also some refundable fee like caution money, laboratory fee, library caution money etc.

Other Sources :

Other sources of getting money to finance education include donation, gifts, subscriptions, fines, interest of bank balances, rent from buildings and foreign aid from the rich countries or international agencies to the government of poorer countries. This aid is received by the central government in the form of certain development programmes of education.



CHECK YOUR PROGRESS

Q 4: List the different methods of financing education.

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Q 5: Write notes on government fund, donation from local autonomous bodies.

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TABLE 1

Sector	1st Plan expd 1951-56	2nd Plan expd 1951-56	3rd Plan expd 1961-66	Plan expd 1966-69	4th Plan expd 1969-74	5th Plan expd 1974-79	6th plan expd 1980-85	7th plan expd 1985-90	1990-92 expd	8th plan outlay 1992-97	9th plan outlay 1997-02 cent. setr
1	2	3	4	5	6	7	8	9	10	11	12
Elementary	56	35	34	24	30	35	33	37	37	47	58
education	(850)	(950)	(2010)	(750)	(2390)	(3170)	(8360)	(28490)	(17290)	(92010)	(118428)
Secondary	13	19	18	16	18	17	21	24	22	18	13
Education	(200)	(510)	(1030)	(530)	(1400)	(1560)	(5300)	(18320)	(10530)	(34980)	(26035)
Adult Education	-	-	-	-	-	-	9	6	9	9	3
							(2240)	(4700)	(4160)	(18480)	(6304)
Higher	9	18	15	24	25	22	22	16	12	8	12
Secondary	(140)	(480)	(870)	(770)	(1950)	(2050)	(5590)	(12010)	(5880)	(15160)	(25000)
Others	9	10	12	11	14	14	4	3	2	4	2
	(140)	(300)	(730)	(370)	(1060)	(1060)	(1080)	(1980)	(1180)	(7510)	(4314)
Technical	13	18	21	25	13	12	11	14	17	14	12
Education	(200)	(490)	(1250)	(810)	(1060)	(1070)	(2730)	(10830)	(8230)	(27860)	(23735)
Total-	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**
	(1530)	**(2730)**	**(5890)**	**(3230)**	**(7860)**	**(9120)**	**(25300)**	**(76330)**	**(47270)**	**(196000)**	**(203816)**

Note : Figures in parenthesis in millions of rupees.

Excludes the sum of Rs. 4,526.74 crore for Nutritional support to Primary Education (Mid Day Meals) for the last three years of the plan.

Source : *Dr. R. V. Vaidyanatha Ayyar, Eductional Planning and Administration in India : Retrospect and Prospect, Journal of Educational Planning and Administration, Vol. VII, Number 2, NIEPA, new Delhi.*

TABLE 2

1. Allocation of total out lay propsed for the 11th Plan period (2007-2012) in Elementary Education is Rs. 210 crores, as follows:

Year		Proposed Budgetary Outlay (in Rs. Crores)
2007-08		34
2008-09		38
2009-10		42
2010-11		46
2011-12		50
Total	=	210

Source: Report of 11th Five Year Plan

2. Budget allocation (in Percentage) and expenditure (in Percentage) during 10th plan(2002-2007) for the Secondary, Higher & University, Technical and Adult Education.

Educational level	Total % of Allocation	Total % of Expenditure
Secondary	9.87	6
University & Higher	9.53	7
Technical	10.72	6
Adult	2.85	2

Source: Annual Financial Statistics of Education Sector 2003-04, MURD, Govt. of India, New Delhi, 2005 and Expenditure budget 2006-07, Volume 2, Government of India, February 2006

1.6 FINANCING AT VARIOUS LEVELS OF EDUCATION

Education is considered in terms of three stages: elementary, secondary and higher or tertiary. Generally, for the primary and secondary education, the fundings are bourne mostly by the State Government although there are many institutions where most of the expenditure is bourne by the Central Government. Reference can be made of various mission approaches like SSA (Sarva Shiksha Abhiyan), RMSA (Rashtirya Madhyamik Shiksha

Abhiyan) under the plan sector for universalising elementary and secondary education and Navodaya Vidyalaya for secondary education etc. For the higher education, most of the expenses are done by the autonomous Central Government agencies like UGC (University Grant Commission, CABE (Central Advisory Board of Education), DEB (Distance Education Bureau) etc. In fact, for the higher education, the role of the State Government is minimal which is quite invisible in nature. Today for the higher education, the public-private partnership plays the major role for spreading education in India.



Concurrent List: It falls under the seventh schedule of the Indian Constitution. It incorporates 97 items or subjects over which Union Parliament and the State Legislature can make Laws.

Before 1976, education was the exclusive responsibility of the states. The central Government was only concerned with certain areas like coordination and determination of standards in technical and higher education. But through 42nd Constitutional amendment, education was incorporated in the concurrent list and it became a joint responsibility of the state governments and central governments. The was to facilitate evaluation of all India policies in the field of education. In addition to policy formulation, the Ministry of Human Resource Development shares with the states the responsibility for educational planning.

At present, there are *three main agencies financing education* in India, the central government, the state government and the local bodies including private enterprises. The resources of the centre are very wide. It has more taxation and monetary power. It occupies a superior position in the management of national economy. The states have limited resources and money raising power and the local bodies have still less means for supporting education. Despite these limitations, it is agreed that regard for local effort has to be paid. Consequently, the major part of educational expenditure has to be borne by the state. Local bodies also discharge their educational responsibility with support from the state.

With the commitment of argumenting resources for education, the allocation for education over the years has increased significantly. Plan outlay on education increased from Rs. 153 crore in the First Five Year Plan to Rs. 7,443 crore in the Eight Five Year Plan (1992-97). The expenditure on Education as a parentage of GDP (Gross Domestic Product)

also rose from 0.7 percent in 1951-52 to 3.94 percent in 1999-2000. The Ninth Five Year Plan for education in the central plan is higher than the Eight Plan outlay by 2.7 times. The outlay for the education sector for the Ninth Plan was 20,381.64 crores. It excludes the sum of Rs. 4,526 crores for national support to primary education. The central plan outlay for education has been substantially increased from 1,825 crores in 1995-96 to 5,450 crores in 2000-2001 and Rs. 5,920 crores in 2001-2002 plan expenditure on different sectors of education is given in ***Table 1***. In the 11th Five Year Plan, the propsed budgetary allocation for elementray education was 210 crores, which can be seen year wise in ***Table 2.*** Again, the budget expenditure for the Secondary and Technical education during the 10th Plan (2002-2007) was not more than 6% and for the higher/ university and Adult education, the expenditure was 7% and 2% respectively.

The present level of total public spending on education in the country (taking the spending by not just Education Departments at the Centre and in the States but also by the other Departments that spent on educational services) works out to 3.5 percent of the GDP (2010-11). But, even this proportion falls much short of the 6 percent of GDP recommended in 1966 by the Kothari Commission and reiterated again in 2006 by the CABE (Central Advisory Board of education) committee.

If we look at the shares of spending on education by the Centre and the States separately, we find that Centre's share has been showing an increasing trend over the years and moving up from 0.5 percent of GDP in 2000-01to 0.9 percent of GDP in 2009-10 (Revised Estimates), while the State' s share has declined from 3.3 percent of GDP in 2000-01 to 2.7 percent of GDP in 2010-11. However, the Centre bears only one fourth of the total government spending on education, whereas the rest three-fourth of the spending comes from the State Governments.

The primary education acts as a resource for secondary education, which in turn acts as a resource for higher education. Thus, all the three sectors create the final demand for and output of education for the country as a whole. Therefore, it is the right time to know how much the public expenditure on education as a proportion of GDP (Gross Domestic Product)

was invested in sector wise. The following Table shows the percentage of public expenditure on total education system in India from 2007-08 to 2010-11.

Table 3: Sector Wise Trend in Public Expenditure on Education as a Proportion of GDP (Fig.in Percentage)

Sector	2007-08			2008-09			2009-10 (RE)			2010-11 (BE)		
	State	Centre	Total	State	Centre	Total	State	Centre	Total	State	Centre	Total
Primary	1.03	0.36	1.39	1.07	0.35	1.42	1.22	0.33	1.55	1.13	0.33	1.46
Secondary	0.67	0.05	0.72	0.75	0.07	0.82	0.88	0.09	0.97	0.83	0.09	0.92
Higher/University	0.49	0.28	0.77	0.53	0.29	0.82	0.58	0.31	0.89	0.55	0.28	0.83
Technical	0.13	0.10	0.23	0.16	0.14	0.30	0.18	0.16	0.34	0.17	0.14	0.31
Total Education	2.32	0.79	3.11	2.51	0.85	3.36	2.86	0.89	3.75	2.68	0.84	3.52

Source: Ministry of Human Resource Development, Government of India (2012), RE- Revised Estimates BE-Budget Estimates

The above shows the composition of the total budgetary expenditure on education by the Centre and State Governments- through its budgetary provision for the three broad education subsectors, viz. elementary, secondary and higher education. A brief look at the overall composition reveals that the inter-sector allocations have been stagnant over the last few years. In fact, the Government's expenditure in elementary education as a proportion of GDP is declining overtime.

Let us discuss educational financing at various levels of education in the following subsections.

1.6.1 Elementary Education

The central government plays the lead role in the evolution and monitoring of educational policies and programmes and the most notable of which are National Policy on Education,1986 and the updated Programme of Action,1992. Universalisation of Elementary Education (UEE) has been accepted as a national goal. The Ninth Five Year Plan envisages UEE to mean universal access,

universal retention and universal achievement. The outlay on elementary education is 64.19 percent of the total central sector plan outlay in 2001-2002.

The central and state governments have, over a period of time, evolved strategies to check drop out rates and improve the levels of achievements in the schools by creating parental awareness, community mobilisation, improvement of infrastructure facilities in schools, providing nutritional support and teacher education schemes. Adoption of District Primary Education Programme (DPEP) and the Sarva Siksha Abhiyan (SSA) are the important measures undertaken to universalise elementary education.

The Ministry has released grants amouting to 88.50 crores to 28 states and union territories for starting the preparatory activities. The guidelines finalised for SSA have been sent to the states and union territories. A national level mission has been set up under the chairmanship of Prime Minister vide resolution dated January 2nd, 2001. The states have been requested to formulate and submit District Elementary Education Plans.

The District Primary Education Programme (DPEP) was launched in 1994 as a major initiative to achieve the objectives of universalisation of Primary Education. DPEP is a centrally sponsored scheme. Eighty five percent of the project cost is shared by Government of India and 15 percent by the concerned state governments. Both the central share and the state share are passed on to state implementation societies directly as grant. The government of India share is resource by external funding. Several bilateral and multilateral agencies are providing financial assistance for the DPEP. In Assam, DPEP scheme is going on in nine districts—Goalpara, Kokrajhar, Dhubri, Bongaigaon, Barpeta, Darrang, Sonitpur, Morigaon and Karbi Anglong.

The Sarva Siksha Abhiyan (SSA) evolved from the recommendations of the conference of the state Education Minister

held in October,1998 to pursue UEE as a mission. The government of India approved the scheme in November,2000. The sharing ratio of SSA between the centre and the state basically reveals different parameters. The support of teachers salary appointed under SSA programme could be shared between the centre and the state government in a ratio of 85.15 during the Ninth Plan, 75:25 during the Tenth Plan and 50:50 thereafter, in Assam the centre released 3252.04 lakhs and the state released 754.00 lakhs in 2001-02. This was increased gradually and in 2006-07 it reached 38426.77 lakhs from the centre and 1001.3 lakhs from the state.

1.6.2 Secondary Education

Secondary education starts with classes IX and XII. It serves as a bridge between elementary and higher education and prepares the young persons between the age group of 14 to 18 years for entry into the world of work or for entry in higher education. The enrolment at secondary and senior secondary stage increased from 1.5 million in 1950 to 27.8 million in 1998-99. There are about 1.10 lakh secondary level institutions to accommodate these children. The total plan outlay for secondary and higher secondary education includes 648 crores in 2001-02. Adolescents, which form the population for secondary education, constitute nearly one fifth of the total population of the country.

The centrally sponsored scheme of vocationalisation of secondary education is being implemented since 1998 and a revised programme is in operation since 1993. The planning commission categorised this scheme for transfer to the states along with other centrally sponsored schemes. But, as a concrete decision has not emerged in the initial stage of the Nineth Plan, the pace of implementation was slow. In August,1999 it was decided to revitalise the scheme and accordingly the states were advised to send expansion plan proposals. Subsequently, the states like Kerala, Madhya Pradesh, Haryana, Assam and Uttar Pradesh have ventured

into a big expansion plan to cover more number of schools and introduce demand driven courses.

Education about India's common cultural heritage has been identified in NPE as one of the core areas under the national system of education. A centrally sponsored scheme of assistance for strengthening culture and values in education is being implemented for providing assistance to government agencies, educational institutions, panchayatraj institutions, registered societies, public trusts and non-profit making companies. A total grant of Rs. 123 lakh was approved for sanction of organisations during 1999-2000. The budget provision for the year 2000-01 was kept at Rs. 5 crore.

Under the scheme for strengthening of boarding and hostel facilities for girl students of secondary and higher secondary schools, financial assistance is being given to the eligible voluntary organisations to improve the enrolment of adolescent girls belonging to the rural areas and weaker sections. Rs. 5000 per anum per girl student was granted for food and salary for the cook and warden.

1.6.3 Higher Education

An activity can be performed efficiently only if the money invested in it is adequate. In education, we find that standards have declined owing to the lack of funds, and money has to be necessarily spent for the salaries of teachers, students' welfare, libraries, curriculum and other educational activities.

One major problem faced by the universities and colleges is that of finance. The administrative organisation of the state and its policies have a profound impact upon the university's economy. The expenses of a university are met

(i) 50% from the treasury

(ii) Fees

(iii) Local councils.

The colleges affiliated to a university do not receive their grants directly from the university, instead it is the state department of

education which provides them with grants and other financial help.

The Radhakrishnan Commission has offered the following suggestions for strengthening the economy of the universities—

- The state must accept its responsibility of providing financial aid to higher education.
- Individual colleges should be given aid for constructing buildings and other activities.
- The income tax laws should be reformed so that the money invested in education should be free from taxation.
- The government should provide additional grants wherever necessary.
- A grants commission should be appointed for determining the grants to be given to educational institutions.

The ***Kothari Commission*** has offered the following suggestions for putting the finances of the universities on a sound footing.

- State governments should conduct themselves, with reference to universities, in such a manner that necessary financial resources should be available to universities for performing their necessary functions. If the state governments take the advice of the UGC, it will prove beneficial for both.
- Whenever there is a need for suitable economy, it is necessary to ensure that rules are simplified so that progress and efficiency are not hindered. The commission admitted that it is difficult to make a valid and accurate projection of the expenditure in higher education, but suggested that Rs.42,22,021 should be spent on it by 1985-86.
- Central universities should obtain money from the University Grants Commission.
- The UGC should be authorised to give grants to universities in the states. If the state government fail to give adequate grants, the UGC should compensate the difference.
- State governments should finance the state universities in the following manner—

(a) Matching grants for the funds provided by the UGC for developmental activities in the sphere of student welfare.

(b) Non-plan grants for the development of the university.

(c) Grants for the authorised expenditure.

(d) The UGC and the state government should share equally all developmental expenditure.

(e) The state government should also give freedom to spend money and the universities should be set free from governmental audit and interference.



LET US KNOW

BUDGET:

In the budget session held in July 2014, the Government has made some provisions for Primary, secondary and higher ducation. The Government would strive to provide toilets and drinking water in all the girls school in first phase.

For *Primary* and *Secondary Education*, the following are the issues on which special focus has been given by the present NDA Government :

- An amount of Rs. 28635 crore is being funded for Sarva Shiksha Abhiyan (SSA) and 4966 crore for Rashtriya Madhyamic Shiksha Abhiyan (RMSA).
- A School Assessment Programme is being initiated at a cost of 30 crore.
- 500 crore provided for "Pandit Madan Mohan Malviya New Teachers Training Programme" to infuse new training tools and motivate teachers.
- 100 crore provided for setting up virtual classrooms as Communication Linked Interface for Cultivating Knowledge (CLICK) and online courses.

For *Higher Education*:

- Jai Prakash Narayan National Centre for Excellence in Humanities to be set up in MP.

- 500 crore provided for setting up 5 more IITs in Jammu, Chhattisgarh, Goa, Andhra Pradesh and Kerala respectively.
- 5 IIMs in the States of HP, Punjab, Bihar, Odisha and Rajasthan.
- Simplification of norms to facilitate education loans for higher studies.

OUTLAYS TOWARDS EDUCATION IN THE 12TH PLAN:

The 12th Plan document provides a Ministry-wise comparison of previous Plan realisation with the 12th Plan projections. For education, the overall 11th Plan education expenditures was Rs. 1,37,734 crore, which is being projected to be about Rs. 3,43,028 crore in the 12th Plan period, which is more than twice the 11th Plan expenditures.

Table 4 - Recommended 12th Plan Outlay vs. Budgetary Allocations in Education

Plan/Scheme	12th Five year Plan Outlay	Union Budget Allocation (in Rs. Crore)			Union Budget Allocation corresponding t 12th Plan Period (in Rs. Crore)	% of Outlay
		2012-13 (actual)	2013-14 (RE)	2014-15 (BE)		
SSA	19 2726	23873	26608	28258	78739	40.9
MDM	90155	10849	12189	13215	36253	40.2
RMSA	27466	3172	3123	5000	11295	41.1
Dept.of School Education & Literacy	343028	45631	50136	55115.1	150883	44.0
State Universities & Colleges including RUSA*	25000	107	2093	4090	6290	25.2
Dept of Higher Education	110700	20423	24485	27656	72564	65.6

Note: RUSA*: Rashtriya Uchcha Shiksha Abhiyan

RE: Revenue Expenditure

BE: Budget Expenditure

Source: 12th Five Year Plan document, Vol-III, Government of India



CHECK YOUR PROGRESS

Q 6: Fill in the blanks :

i) Education as a subject incorporated in the ..... list by 42nd amendment of the constitution.

ii) Education is a ..... responsibility of the central and state government.

iii) The main funding agency of education is the ..... government.

iv) Expenditure on education as a percentage of GDP rose from 0.7 percent to ..... percent.

Q 7: Name the two important measures undertaken for the universalisation of primary education.

Q 8: Name the year in which the centrally sponsored scheme of vocationalisation of secondary education was implemented.

Q 9: Name the agency from which the central universities receive their funds.



1.7 LET US SUM UP

- At the beginning of this unit, we have discussed the meaning of economics of education.
- We have learnt that there are mainly three types of expenditure on education, i.e., plan and non-plan expenditure, recurring and non-recurring expenditure and direct and indirect expenditure.
- The main sources of revenue of education are government funds. The money received from central government, state government, UGC, NCERT etc. forms the largest source of educational finance in our country.
- Donations from local autonomous bodies like district boards, municipalities, zila parishads and panchayat samittis are also another

source of revenue for education. Beside these, donation of land, building, equipment, cash, fee by students, fines, subscriptions etc. are also the sources of educational finance.

- We have discussed educational financing at various levels of education and it is observed that the plan outlay on education has increased significantly in every five year plan.
- The National Policy of Education 1986 and the updated programme of Action 1992 have accepted universalisation of elementary education as the national goal.
- District Primary Education Programme (DPEP) and Sarva Siksha Abhiyan (SSA) are the two important measures adopted by the government for universalisation of elementary education.
- Secondary education serves as a bridge between elementary and higher education. The total plan outlay for secondary and higher secondary education was 648 crore in 2001-02. Regarding higher education, the colleges and universities receive grants from the state government, central government and also from the University Grants Commission.



1.8 FURTHER READING

1) Chandra, S. S. & Chakraborty, A. K. (2008): *School Administration, Organisation and Management*. R.Lau Book Depot, Meerut.

2) Sachdeva, M. S. (2000): *School Organisation, Administration and Management*. Sandan Publication, Ludhiana.



1.9 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q No 1: Economics of education means the systematic and deliberate planning of educational system in order to accelerate the economic

development of the country.

Ans to Q No 2: Direct and indirect expenditure, recurring and non-recurring expenditure, plan and non-plan expenditure.

Ans to Q No 3: Indirect expenditure referes to the expences for inspection, building, scholarships, canteens, staff quarter, purchase and developing land furniture etc.

Ans to Q No 4: Government funds, donations from local autonomous bodies, endowments and land grants, fees from students and public donation or gifts.

Ans to Q No 5: Goverment fund means both central and state government grants. Donation from autonomous bodies means the fund from district boards, municipalities, panchayat samittis etc.

Ans to Q No 6: i) Concurrent

(ii) Joint

(iii) Central

(iv) 3.94

Ans to Q No 7: District Primary Education Programme (DPEP) and Sarva Siksha Abhiyan (SSA)

Ans to Q No 8: 1998.

Ans to Q No 9: University Grants Commission (UGC).



1.10 MODEL QUESTIONS

A) Short Question (Answer each question in 150 words)

Q 1: What do you mean by economics of education?

Q 2: What do you mean by fee and what is the importance of fees in an education system?

Q 3: What do you mean by direct expenditure?

Q 4: What do you mean by indirect expenditure?

Q 5: What are the sources of revenue in education?

B) Long Question (Answer each question in about 300-500 words)

Q 1: What are the methods of financing education? Explain with the help of examples.

Q 2: Explain the problems of educational finance.

Q 3: Write an essay on educational finance at various levels of education.

Q 4: Describe the types of educational expenditure

Q 5: Differentiate between recurring and non-recurring expenditure.

*** ***** ***

UNIT 2: EDUCATION AND ECONOMIC DEVELOPMENT

UNIT STRUCTURE

2.1 Learning Objectives

2.2 Introduction

2.3 Concept of Education and Economic Development

2.3.1 Relationship between Education and Economic Development

2.3.2 Education and Human Capital Formation

2.4 Education and Manpower Planning

2.5 Let Us Sum Up

2.6 Further Reading

2.7 Answers to Check Your Progress

2.8 Model Questions

2.1 LEARNING OBJECTIVES

After going through this unit, you will be able to-

- explain the concept of economic development
- discuss the relation between education and economic development
- identify the role of education in human capital formation
- describe the role of education in manpower planning.

2.2 INTRODUCTION

This unit will familiarise you with the concept of economic development and its relation with education as well as human capital formation and manpower planning. We know that economic development indicates the development of economic prosperity and upward mobility of the people in society and the country as a whole. Economic development plays a crucial role in the development of per capita income of the individual and eventually plays the dominant role in enhancing the Gross Domestic Product of the country. But whenever we talk about economic development

of a country or the people living in a society, we can not deny the role of education in paving the way for economic development. In fact, economic development of any country is possible only through better education system only and better education system is a mirror that reflects the adequate, up-to-date and advanced educational facilities and infrastructure and academic environment. Moreover, it is also very well-known to us that the levels of education differ drastically between developing and developed countries. Even within the country, it has been observed that there are varied education systems from place to place, regional to region etc. Apart from these, we can not deny the prevalent gender disparity in terms of equity and quality education which is a major challenge for a country like ours.

In the present globalised world, we need such type of education that can contribute to the formulation of human capital in order to increase the productivity level of the nation. Even several decades ago, it was rightly identified by eminent economists, educationists and thinkers that human capital and education are productive development strategies that would be raised through an increase in the schooling levels of the population. But there are certain problems with this strategy. Firstly, the developed and developing countries differ in many ways other than in the schooling levels. Secondly, a number of countries have expanded schooling opportunities without seeing any catch-up with developed countries in terms of economic well-being. Thirdly, countries that do not function well in general might not be able to mount effective education programmes. Besides all the problems, we also cannot deny the fact that during the last few decades, the developing countries have achieved substantial progress in education. The involvement of the Government has encouraged educational improvements, modified traditional methods, helped raise local management capacity and provided a strong source of funding for building and equipment. This unit is thus going to throw light on the relationship between education and economic development and the role of education in human capital formation and manpower planning.

2.3 CONCEPT OF EDUCATION AND ECONOMIC DEVELOPMENT

There is a close connection between the economic development of a country and development in the field of education. Economic development refers to economic wellbeing of the people and the society. So economic development comprises individual wellbeing as well as social wellbeing. Social wellbeing refers to improvement in common facilities and infrastructures like transportation and communication, housing and sanitation, healthcare facilities, improved educational facilities, provision of safe drinking water, common facilities for recreation of the people, provision of high standard social welfare facilities, increase in employment and income etc. But economic wellbeing of individuals refers to the achievement of better and higher standard of living of the people. The higher standard of living of the people in terms of good individual housing and sanitation, good healthcare services, better education, higher level of individual income and employment etc. The various components of economic wellbeing that have different measuring of the ***per capita annual income*** of the people can be taken as a common measuring road for all the indicators of economic development.

On the other hand, educational development is reflected in terms of improvement in educational facilities and infrastructures. These educational facilities and infrastructures refer to better student-teacher ratio, availability of competent and adequately qualified teachers, good class-room facilities with good building and adequate accommodation, improved and adequate provision of educational apparatus and technology, good library facilities, good laboratory facilities etc. The outcome of improvement of educational development can be measured in terms of the increase in ***general literacy rate***, increase in adult literacy rate, fall in the drop-out rate, improvement in skill and capacity building etc. Usually, either improvement in the general literacy rate or improvement in the ***adult literacy rate*** can be taken as a single indicator of improvement in educational development.



Annual per Capita income means income per person per year



Gross National Product (GNP) means total income of a country during a financial year



General literacy rate refers to percentage of people who can read, write and understand in the age group 6 years and above. ***Adult literacy rate*** refers to percentage of people who can read, write and understand in the age group 15 years and above.



CHECK YOUR PROGRESS

Q 1: What do you mean by economic development ?

.....

.....

Q 2: What do you mean by educational development ?

.....

.....

2.3.1 Relationship between Education and Economic Development

An American economist Edward Denison made a historical study to investigate the relationship between educational development and economic development. In his study, he formulated a production function to determine the contribution of various factors including educational development to increase the national income of USA between 1910 and 1960. In the said empirical study, Denison found that the increase in the amount of capital and the number of labour did not explain the increase in **gross national product (GNP)** of a country. He found that the improvement in the quality of labour force was the most important factor for increase in GNP. The improvement in the quality of labour forces is normally attained through education and training along with technological progress. Denison found that the improvement in the level of education and training of labour force accounted for as much as 23% of the annual growth of gross national product in USA during 1930 and 1960.

There always exists a strong and high positive correlation between educational development and economic development of a country. If we consider the per capita income and the adult literacy rate as the two broad indicators of economic development and educational development respectively, it will be seen that there is a

close connection between educational development and economic development. Taking the global picture of the per capita income and adult literacy rate, one can find a close relationship between the two as a proxy of relation between educational development and economic development of three different levels of countries, namely low income, middle income and high income. The United Nations in its annual ***UNDP's HDR Reports***, classifies its member countries into four broad categories based on the level of per capita income - low income nations, middle income nations, high income nations and high income nations.



UNDP's HDR refers to the annual Report of the United Nations Development Programme on human development popularly known as Human Development Report (HDR)

If one takes into account the level of adult literacy rate and per capita income in terms of Purchasing Power Parity (PPP) as reflected in the UNDP reports on HDR, the following statistics in table-1 indicates that the higher is the level of literacy rate, the higher is the level of per capita income.

Table-1: Per capita income and adult literacy rate by group of nations in 2005-2012

Country type	Per capita income (in PPP US $ in 2005-2012)	Adult literacy rate in 2005- 2012)
Low income nations	1,383	67 %
Middle income nations	7,167	94 %
High income nations	38,509	100 %

Source: Human Development Report, 2014, UNDP

If we look into the Indian scenario of educational development (in terms of general literacy rate) and economic development (in terms of per capita income) during 1951 to 2011, a very close relationship between the two is found to have existed as depicted in Table-2 as below:

Table-2: Index of per capita income and literacy rate in India, 1951 to 2011

Census year	Index of per capita income (at 2004-05 prices)	General literacy rate
1951	100.0	18.3
1961	124.9	28.3
1971	140.8	34.5
1981	150.6	43.6
1991	201.4	52.1
2001	286.2	65.4
2011	510.8	74.1

Sources: Various Census Reports and Economic Surveys of India, 2012-13

It appears from the above table, the per capita income and the literacy rates move in the same direction indicating that higher the per capita income, higher is the literacy rate. Conversely, it also appears that higher the per capita income, higher is the literacy rate during 1951to 2011 .The ***correlation coefficient*** between index of per capita income and the literacy rate is found to be 0.90 indicting a very high relationship between the two.

Of course, it is difficult to say which is the cause and which is the effect. It may be argued that because of higher level of educational development, economic development is high. On the contrary, one may also argue that because of higher level of economic development, the educational development is high. Both the arguments appear to be true. But the consensus view is that educational development is the cause and economic development is the effect implying that improvement in educational level leads to economic development. The reason behind this consensus view is that education enhances knowledge and technology that will lead to higher productivity and income, and thereby education leads to economic development.



Correlation Coefficient is a statistical tool to measure the extent of relationship between two variables or two factors, the value of the correlation coefficient ranging between 0 and 1.

2.3.2 Education and Human Capital Formation



Per capita income in PPP US $ means per capita income of a country in terms of purchasing power of the currency of that country vis-à-vis in USA. For example, if a 400 gram bread in India costs Rs. 20 and the same bread costs $1 in USA whose exchange value is Rs.60, then PPP in India and USA is 3:1.

The term human capital formation refers to the "process of acquiring and increasing the number of persons who have the skills, education and experience which are critical for the economic and the political development of a country. Human capital formation is thus associated with investment in man and his development as a creative and productive resource". (Harbisson.F.H 1992). The manner in which physical capital generates income in the form of goods and services, the investment in education and training creates assets in the form of knowledge and skill. The improvement in the knowledge and skill increase the productive capacity of manpower and thereby the productive efficiency of manpower. Adam Smith in 1776 in his famous book "Wealth of Nations" compared an educated and skilled man with an expensive machine. Investment in education and training raises efficiency and productivity of the labour force.

The productivity of any factor of production, say labour force, is measured in terms of the rate of return, and in the same way, the productivity of education. The rate of return in education is measured in terms of costs and benefits of education. The rate of return is obtained by comparing the total costs and total benefits of education. Hence, greater is the surplus of benefits over the costs, higher will be the rate of return and vice versa.

- **Costs of Education**:

The costs of education is measured in terms of the total resources spent by the government or / and by individuals. The costs incurred by the government includes salaries of teaching and non-teaching staff, their retirement benefits, costs of free books, library books and journals, land and buildings, furniture and fixtures, stationeries and printing etc.

The private costs of education incurred by individuals include costs of tuition fees, book and stationeries, maintenance costs, uniforms and dresses, private tuition (if any) , costs of transport etc.

Sometimes, individuals also bear the opportunity costs of education which is the amount of earning foregone by the students during the period of education. For example, if a graduate school teacher earning Rs. 20,000 per month takes leave for two years to pursue MA programme in History in the University, he will have to forgo the salary for two years amounting to Rs. 2, 40,000. This amount of Rs. 2, 40,000 is the opportunity cost of the school teachers and constitutes the part of the private costs of education.

- **Benefits of Education:**

The benefits of education are the extra lifetime earnings enjoyed by the manpower due to enhancement of knowledge as a result of education and training. For example, let us take the same example of the graduate school teacher earning Rs. 20,000 per month as mentioned in the earlier sub-section. Let us further assume that after passing out MA and qualifying the NET examination, he got a job in a college earning Rs. 40,000 per month. His immediate financial benefit is Rs. 20,000 (= Rs. 40,000 – Rs. 20,000) per month. If he continues to serve as the college teacher say for about 30 years, his gross benefits during his life time will be at least Rs. 72, 00,000 (= Rs.20, 000 x 12 x 30)

The productivity of human capital due to enhancement of knowledge through education and training, or the rate of return to the investment in education is measured by the costs and benefits of education and training. The rate of return is obtained by equalising the total costs and total benefits of investment in education and training during lifetime, and is measured by the following formula–

$$C = \frac{B_1}{(1+r)} + \frac{B_2}{(1+r)^2} + \frac{B_3}{(1+r)^3} + \ldots\ldots\ldots + \frac{B_t}{(1+r)^t}$$

Where, **C** is the total costs of Education, $\mathbf{B_i}$ is the annual monetary benefits and **r** is the rate of return

R. Psacharopolous in a global study found that the rate of return of investment in human capital (in education and training) is

more than the rate of return in physical capital.

Level of economic development	Rate of return Physical capital	Rate of return of human capital
Countries having per capita income less than $1000 in 1983	15.1 %	19.9 %
Countries having per capita	10.5 %	8.3 %

Interestingly, in relatively poorer countries (less than $1000 per capita income in 1983), the rate of return of human capital is more than that of physical capital. On the other hand, in relatively richer countries (more than $1000 per capita income in 1983), the return on human capital is less than that of the physical capital. This suggests that the relatively poorer countries (say developing countries) should make relatively more investment in education and training compared to the developed countries in order to make the investment more productive.



CHECK YOUR PROGRESS

Q 3: Name the book in which Adam Smith compared an educated and skilled man with an expensive machine

.....

.....

Q 4: How is the rate of return of education measured ?

.....

.....

Q 5: How is the cost of education measured?

.....

.....



ACTIVITY 2.1

As an educated person, what will be your contribution to the cause of education? Discuss in your own words.

.....

.....

2.4 EDUCATION AND MANPOWER PLANNING

Manpower planning is an integral part of the planning system of any country. Manpower planning is needed for rationale allocation of manpower to do away with the problem of unemployment and under-employment or at least to reduce its impact. If the manpower planning is to be effective, it should be integrated with the educational planning. In fact, one can consider manpower planning and educational planning as the two sides of the same coin.

In manpower planning, one has to take into account the demand for manpower and the supply of manpower. The ideal situation is the equality of demand for manpower and the supply of manpower, which rarely happens. So, the main aim of manpower planning is to minimise the gap between the demand for and supply of manpower. The supply of manpower is the total number of persons passing out various examinations conducted by the Boards or Institutes or Universities during a year. Hence, it is not difficult to estimate the manpower supply as the statistics are readily available with the educational organisations and institutions.

The demand for the various categories of manpower such as teachers, engineers, doctors, scientists, administrative officers, management cadres, agricultural scientists, junior technical persons, clerical staff, peons, chowkidars etc. depends on the need of the economy or the pattern of development of the economy. It is very difficult but not impossible to estimate the manpower requirement or manpower demand in the economy for a particular year. Since the various sectors of the economy such as industry, agriculture, transportation, power, trade and commerce etc. are

interdependent, a change or development in any one of the sectors leads to the change in production and employment in other related sectors. Because of such sectoral interdependence, the estimation of demand for manpower is very difficult. However, Nobel Laureate Professor Leontief's famous Input-Output model can be used to estimate the demand for manpower with great precision.

Once the manpower demand is estimated for a future date or a year or a period, the educational planning can be made for providing various types and levels of education for the relevant period.

But unfortunately, there is a huge mismatch between the demand for manpower and the suppliers of manpower in the education system. This mismatch in turn increases the unemployed and underemployed youths in the country and hence, it becomes a tough challenge for a country like ours. In the education system, particularly in higher education, there seems to be the problem of the mismatch. The mismatch indicates basically two things –the supposition that those who have acquired professional, technical and higher education, have greater possibilities of getting absorbed in the job market compared to those who have acquired low level of education and skills. However, even this section of skilled and educated persons fail to get absorbed in the employment market due to problems of employability of these skills in the market. Thus, this amply points at the mismatch in the supply of the educated (degree) which are produced by the institution which often fails to take note of the nature of the demand of skill and education in the contemporary situation. From this, one can further infer and also conclude, as substantiated by facts that where there is more supply of graduates from general education there occurs heavy un-employment due to lack of employment opportunity. This ultimately, directly and indirectly, encourages the export the brain from the state (i.e. called brain-drain), creates the problems like youth unrest and ultimately drives the youths to indulge in various anti-social activities.



ACTIVITY 2.2

Suggest some techniques for developing man-power planning in India.

.....

.....



2.5 LET US SUM UP

- Economic development indicates the development of economic prosperity and upward mobility of the people in society and the country as a whole.
- It plays a crucial role in the development of per capita income of the individual and eventually plays the dominant role in enhancement of Gross Domestic Product of the country.
- But, whenever we talk about economic development of a country or the people living in the society we can not deny the role of education in paving the way for economic development.
- In fact, economic development of any country is possible only through better education system which is a mirror that reflects the adequate, up-to-date and advanced educational facilities, infrastructures and academic environment.
- Economic development refers to economic wellbeing of the people and the society. Economic development of any country is possible only through better education system which is reflected by improved educational facilities and infrastructures.
- There are certain problems that exist with the development strategy to raise the schooling levels of the population. Firstly, the developed and developing countries differ in many ways other than the schooling level. Secondly, a number of countries have expanded schooling opportunities without seeing any catch-up with the developed countries in terms of economic well-being. Thirdly, countries that do

not function well in general might not be more able to mount effective education programmes.

- Economic development refers to economic wellbeing of the people and society. So, economic development comprises individual wellbeing as well as social wellbeing.
- Social wellbeing refers to improvement in common facilities and infrastructures like transportation and communication, housing and sanitation, healthcare facilities, improved educational facilities , provision of safe drinking water, common facilities for recreation of the people, provision of high standard social welfare facilities, increase in employment and income etc.
- Educational development is reflected in terms of improvement in educational facilities and infrastructures.
- The improvement in the quality of labour forces is normally attained through education and training along with technological progress.
- There always exists a strong and high positive correlation between educational development and economic development of a country. If we consider the per capita income and the adult literacy rate as the two broad indicators of economic development and educational development respectively, it will be seen that there is a close connection between educational development and economic development.
- Education enhances knowledge and technology which will lead to higher productivity and income. Education thereby leads to economic development.
- The costs of education is measured in terms of total resources spent by the government or / and by individuals. The costs incurred by the government includes salaries of teaching and non-teaching staff, their retirement benefits, costs of free books, library books and journals, land and buildings, furniture and fixtures, stationeries and printing etc.
- The benefits of education are the extra lifetime earnings enjoyed by the manpower due to enhancement of knowledge as a result of education and training.

- Manpower planning is an integral part of the planning system of any country. Manpower planning is needed for rationale allocation of manpower to do away with the problem of unemployment and under-employment or at least to reduce its impact. If the manpower planning is to be effective, it should be integrated with the educational planning.



2.6 FURTHER READING

1) Saumen, Chattopadhyay. (2012): *Education and Economics, Disciplinary Evolution and Policy Discourse*. Oxford Publication.

2) Ahlwalia, M.S. (2000). *"Economic Performance of States in Post-Reform Period", Economic and Political Weekly*, Vol. 35 (19), May 6, pp. 1637-1648.

3) N. Kumar and R. Mittal. (2002): *Economic Development and Planning.* Anmol Publications

4) M.L.Narasaiah. (2007): *Education and Economic Development.* Discovery Publishing House



2.7 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q No 1: Economic development means developments of human capital, increase in the literacy ratio, improving important infrastructure, improvement of health and safety and others areas that aims at increasing the general welfare of the citizens. It can also be seen in terms of a government policy to increase the economic and social welfare and ensuring a stable political environment.

Ans to Q No 2: Educational development means improvement in educational facilities and infrastructures. These educational facilities and infrastructures refer to better student-teacher ratio, availability of competent and adequately qualified teachers, good class-room

facilities with good building and adequate accommodation, improved and adequate provision of educational apparatus and technology, good library facilities, good laboratory facilities etc.

Ans to Q No 3: "Wealth of Nations" is the book written by Adam Smith in 1776 in which he compared an educated and skilled man with an expensive machine.

Ans to Q No 4: The rate of return of education is measured in terms of costs and benefits of education.

Ans to Q No 5: The costs of education is measured in terms of total resources spent by the government or / and by individuals.



2.8 MODEL QUESTIONS

A) Short Questions (Answer each question in about 150 words)

Q 1: What do you mean by economic development?

Q 2: How can the outcome of improvement of educational development be measured?

Q 3: What do you mean by general literacy rate?

Q 4: What do you mean by human capital formation?

Q 5: Explain the meaning of manpower planning?

Q 6: What do you mean by costs of education?

Q 7: What do you mean by benefits of education?

B) Long Questions (Answer each question in about 300-500 words)

Q 1: How would you like to explain the relationship between educational development and economic development? Elaborate with appropriate examples.

Q 2: Discuss the role of education in terms of human capital formation.

Q 3: What do you mean by manpower planning? Discuss the role of education in manpower planning.

*** ***** ***

UNIT 3 : ECONOMICS OF EDUCATION POLICY

UNIT STRUCTURE

3.1 Learning Objectives

3.2 Introduction

3.3 Need of Education Policy in India

3.4 Education Policy before the Independence

3.5 Education Policy in India after the Independence (From 1947 to till date)

- 3.5.1 Education Commission, 1964-66
- 3.5.2 National Policy on Education (NPE), 1968
- 3.5.3 National Policy on Education (NPE), 1986 (with revisions in 1992)

3.6 Policy Issues of Financing Education in India

- 3.6.1 Kothari Commission, 1964-66
- 3.6.2 National Education Policy, 1968
- 3.6.3 National Education Policy, 1986 (with revisions in 1992)
- 3.6.4 86th Constitutions Amendment, 2002
- 3.6.5 National Common Minimum Programme of the UPA Government, 2004
- 3.6.6 CABE Committee, 2006

3.7 Let Us Sum Up

3.8 Further Reading

3.9 Answer to Check Your Progress

3.10 Model Questions

3.1 LEARNING OBJECTIVES

After going through this unit, you will be able to

- understand what an education policy is about
- explain the different education policies undertaken during the British rule in India

- explain the different education policies taken by the Govt. of India after the Independence
- identify the problems of the education policies in India.

3.2 INTRODUCTION

The promotion of education is one of the most important issues for both the developed and underdeveloped countries in the world. However, the proper development of education requires a systematic approach. The systematic approach for the promotion of education in a country is commonly known as the education policy. In terms of economics, the educational policy is an approach to establish different priorities in education for the promotion of education undertaken by a country on the basis of available public resources. It also means providing just the right incentives to the users and producers of education in a way conducive to the overall wellbeing of a country. Generally speaking, an educational policy refers to a concrete approach with a set of principles to improve various inputs of education in order to transform the society. There are two types of educational policies based on the resource constraints faced by the Government-Education Vouchers and Charter Schools. Under Education Vouchers, students or parents are provided vouchers for education, which allow the user of education (students) to choose between different schools which is often self-perceived to be good for the users. In this system, the government carries out the role of financing the education rather than providing education. On the other hand, Charter Schools spilt the financing in education from the provision of education. This policy is nothing but to open government schools from the public resources to provide free or subsidised education to the students of a country. As we finish reading this unit, we shall be able to discuss the various important aspects of the economics of education policy in some detail.

3.3 NEED OF EDUCATION POLICY IN INDIA

There are various reasons of why a country needs education policy. The main reason of education policy in both the developed and developing countries is to eradicate illiteracy. Moreover, we know that education is a merit good and it benefits the individual with higher future income and hence increases the national income. It also benefits the society with the positive externalities created by it. Thus, in some countries like in India, the important reason behind the formulation of education policy is to provide free and compulsory elementary education to the Indian masses.

However, the education system in India is the second largest in the world after China with a Large number of schools, colleges and universities. However, despite being the second largest system, the progress achieved has not been satisfactory in terms of both quantity and quality. To improve the quality of education, the Govt. of India has undertaken numerous education policies before and after the Independence. Thus, the main priorities of the education polices in India are to eradicate illiteracy completely and to provide free and compulsory elementary education.



CHECK YOUR PROGRESS

Q 1: What is an education policy?

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Q 2: What are the types of education policy?

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Q 3: Why does a country need education policy?

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3.4 EDUCATION POLICY BEFORE THE INDEPENDENCE

Before the Independence, the British ruled India and there were numerous education policies undertaken by the British. However, during that period, the promotion of education was not the main objective of the British and hence the development of education was not substantial. Education under the British rule was mainly limited to the needs of the colonial power. The prominent objectives of education provided by the British were to spread English education in India and disseminate Western cultural forms in the Indian subcontinent.

The first important policy was the famous note of February 2, 1835 by Macaulay under the administration of Lord William Bentinck. The main aim of this note was to spread English education in India. Meanwhile, English as the official and court language replaced the Persian language in India in 1837. Moreover, in 1844, Lord Harding announced that preference would be given to the English educated Indians who wanted to appear in the Civil Services. These two steps effectively sealed the growth of English education in India. After initial progress of English education in India, Sir Charles Wood in 1854 forwarded a Despatch mentioning the need of the ruling colonial powers to train a section of upper class Indians in higher education and set up the administrative structure for education. He also recommended the setting up of the three universities in India at Bombay, Calcutta and Madras, which were established in 1857. This Despatch is popularly known as 'Woods Despatch' of 1854.

3.5 EDUCATION POLICY IN INDIA AFTER THE INDEPENDENCE (FROM 1947 TO TILL DATE)

After the Independence in 1947, the Govt. of India started several education policies to improve the education system in the country. The initial attempt of designing an education policy was made in 1968. However, it was only in 1986 that India as a whole had a uniform National Policy on Education. The National Policy on Education 1986, which was modified in

1992, defines universal access and enrolment, universal retention of children up to14 years and substantial improvement in the quality of education as the major goals for elementary education. The National Policy of Education of 1992 also aims at vocationalisation of secondary education and the greater use of educational technology. Some of the important education policies of India and their recommendations are discussed below.

3.5.1 Education Commission on Education, 1964-66

This commission was popularly known as the Kothari Commission on Education. This commission submitted the Report in 1966, which conceived education as a critical socio-political process. The report emphasised the need of urgent improvement of the existing education system, which in turn would help to build the foundation of egalitarian, just and secular society in the country. However, the major recommendations of the commission were as the following:

- To set up State Boards of Education
- To maintain the leveling of institutions for equality
- To setup area-specific neighborhood schools
- To establish a statutory School Education Commission
- Public expenditure on education should be around 6 per cent of the GNP
- Vocationalisation of secondary education and
- Strengthening of the centres of advanced study and setting up of small number of major universities of international standard.

3.5.2 National Policy on Education (NPE), 1968

The National Policy on Education of 1968 was based on the recommendations of the Kothari Commission of 1964-66. The main objective of the National Policy was the reconstruction of the education system of India and to improve its quality at all stages through greater attention to science and technology, the cultivation

of moral values and a closer relation between education and the life of the people. It also aimed to promote national progress, a sense of common citizenship and culture and to strengthen national integration. The major recommendations of National Policy on Education 1968 are mentioned below:

- **Free and Compulsory Education:**

The provision of free and compulsory education for all children up to the age of 14 was made obligatory fulfilling the Directive Principles under Article 45 of the Constitution.

- **Three-Language Formula:**

The state Governments would have to adopt and implement Three-Language formula in the secondary schools. Under this formula, a student would require to learn one Modern Indian Language, which his/her regional language, along with Hindi and English.

- **Equalisation of Educational Opportunities:**

Special attention was given to reduce regional imbalance and gender inequality while providing educational opportunities. Education for the backward regions especially the tribal regions as well as for the physically challenged students was given priority.

- **Improving the status of teacher:**

Teachers were highly honoured in the society. They were supposed to get higher salary and other facilities based on their qualifications and responsibilities.

- **Importance for Science Education and Research:**

Top priority was given to the development of science education and research. Science and mathematics were taken as the integral parts of general education up to the end of school stage. Moreover, special emphasis was given to the development of education for agriculture and industry. At least, one agricultural university was to be set up in each state the country.

- **Secondary Education:**

One important recommendation of the National Policy on

Education 1968 was the extension of secondary education to the areas where secondary education was not available due to the absence of secondary schools. In addition, facilities and diversification for vocational and technical education in the secondary level were emphasised based on the requirements of the developing economies in a country like India.

- **University Education:**

At the university level, huge funds were provided to improve the quality of higher education in the country through establishing new universities, recruitment of additional teaching staff, increasing the number of laboratory, library and other facilities etc. Moreover, special attention was given for research and training at the university level.

3.5.3 National Policy on Education (NPE), 1986 (with revisions in 1992)

Almost two decades after the first education policy of 1968, the Government of India decided to undertake another education policy to cope with the economic and technical developments of the country.

The Government of India adopted the second National Education Policy (NPE) in May 1986. However, the NPE 1986 was later modified incorporating few changes in the policy based on the recommendations given by two separate committees under the chairmanship of Acharya Ramamurti and N. Janardhana Reddy. Thus, the NPE 1986 can also be mentioned as NPE 1992. The important recommendations of the NPE 1986 and NPE 1992 (modified version of NPE 1986) are given below:

- **National System of Education:**

The NPE envisaged a common educational structure in all parts of the country. The common educational framework adopted by the NPE 1986 or NPE 1992 was 10+2+3 which means that a student has to go through 10 years of primary and secondary education and 2 years of higher secondary education and 3 years of graduation. The concept of national system of education implies that up to a

given level, all students, irrespective of caste, creed, location or gender, have access to education of a comparable quality. Moreover, the national system of education would be based on a national curricular framework, which contained a common core part along with other flexible components.

- **Education for Equality:**

This NPE lays emphasis on the removal of disparities and equalisation of educational opportunities by attending to the specific needs of those who have been denied equality so far. Therefore, to bring equality in the provision of education irrespective of caste, gender, location and disabled students, the following special steps were taken:

(a) Education for Women's Equality
(b) Education for Scheduled Castes
(c) Education for Scheduled Tribes
(d) Education for other educationally backward sections and areas
(e) Education for Minorities
(f) Education for Handicapped and
(g) Adult Education

- **Reorganisation of Education at Different Stages:**

The NPE gave special emphasis on care while imparting pre-primary education to the children. Reorganising the holistic nature of child development, viz., nutrition and health, social, mental, physical, moral and emotional development, the Early Childhood Care and Education (ECCE) would receive high priority and be suitably integrated with the Integrated Child Development Services (ICDS) programmes. Day-care centres would be provided as a support service for the Universalisation of primary education, for enabling the girls engaged in taking care of siblings to attend school and for providing support to the working women belonging to poorer sections.

- **Elementary Education:**

This new NPE emphasised three aspects in elementary

education, viz., (a) universal access and enrolment, (b) universal retention of children upto 14 years of age and (c) a substantial improvement in the quality of education to enable all children to achieve essential levels of learning. A child-centered approach was adopted to motivate children to attend school and learn under this NPE. Moreover, special emphasis had been given to the school dropouts through Non-formal Education and different school facilities or teaching aids and equipments were provided to the schools.

- **Secondary Education:**

Vocationalisation of secondary education was one of the important emphases of NPE 1986. The introduction of systematic, well-planned and rigorously implemented programmes of vocational education was crucial in the proposed educational framework. To increase the individual employability and reduce the mismatch between the demand and supply of skilled manpower, the vocational education at the secondary level would be reorganised.

- **Higher Education:**

In higher education, courses and programme would be redesigned to meet the demands of specialisation better. In addition, upgradation of the teaching methods including audio-visual aids and electronic equipments would be undertaken and development of science and technology curricula and material, research, and teacher orientation was given more attention. Moreover, special attention was laid on distance learning through open universities. Rural university was to be established for transformation of rural areas at the grassroots level.



CHECK YOUR PROGRESS

Q 4. Mention the main education policies of the British in India?

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Q 5. What are the main objectives of education policies under the British rule?

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Q 6. Mention the important education policies undertaken by the Govt. of India since Independence?

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3.6 POLICY ISSUES OF FINANCING EDUCATION IN INDIA

The level of financing in an economy can be judged in terms of adequacy, equity and efficiency. It should be first judged in terms of adequacy i.e. whether the finance provided for education are adequate or not. In the 1960's, international comparisons were the common fashion, and investment in education in any economy was used to be judged in terms of international comparisons particularly with reference to the share of education in GNP and the share of education in the Government budget.

In India, several commissions and reports have referred to Investments in education, which are as the following.

3.6.1 Kothari Commission 1964-66

- Public expenditure on education should reach the level of 6 per cent of GNP by 1986.
- Vocationalisation of secondary education.
- Strengthening of centres of advanced study and setting up of small number of major universities of international standard.

3.6.2 National Education Policy 1968

- Investment on education to be gradually increased to reach a level of 6 percent of the national income as early as possible.
- Focus on science & technology and agriculture

- Provision of good and effective education at primary level (on a free and compulsory basis)
- Equality in education for rich and poor: common 10+2+3 education structure throughout India and eventually free schooling till class 10.

3.6.3 National Education Policy1986 (with revisions in 1992)

Resource support for implementing programmes of educational transformation, reducing disparities, universalisation of elementary education, adult literacy, scientific and technological research etc.

3.6.4 86th Constitutional Amendment 2002

Recommended for free and compulsory education of children between the age of 6 to14 years, and provision of early childhood care and education for children below six years.

3.6.5 National Common Minimum Programme of the UPA Government 2004

- Raise public spending in education to at least 6 per cent of the GDP with at least half this amount being spent on primary and secondary sectors. This will be done in a phased manner.
- A cess of two per cent on all central taxes to finance the commitment to universalise access to quality basic education.
- A national cooked nutritious mid-may-meal scheme, funded mainly by the Central Government, will be introduced in primary and secondary school.
- The Integrated Child Development Services (ICDS) scheme will be universalised to provide a functional Anganwadi Centre in every settlement and ensure full coverage for all children.
- All Northeastern States will be given special assistance to upgrade and expand infrastructure.

3.6.6 CABE Committee, 2006

- The additional financial requirement for universalising secondary education as the percent of the GDP was worked out to be around 0.18 percent in 2003-04 and to 0.86 percent 2019-20.
- 6 per cent of the GDP was earmarked for education, the shares of elementary, secondary and higher secondary (as percentage of GDP) would be 3, 2 and 1 respectively.



3.7 LETS US SUM UP

- Educational policy is an approach to establishing different priorities in education for the promotion of education undertaken by a country with their available public resources.
- There are two types of educational policies based on the availability of resources in a country viz. Education vouchers and Charter Schools.
- Education Vouchers allow the user of education (students) to choose between different schools what is self-perceived to be good for the users. On the other hand, Charter schools spilts the financing from the provision of education.
- There are many education policies undertaken in India both before the Independence and after.
- Education policies adopted by the British were limited to the needs of the colonial power. The important objectives of education provided by the British were to spread English education in India and to disseminate Western culture in the Indian subcontinent.
- After Independence, the Government of India has taken a slew of education policies to promote and improve the education system in the country. The major goals of the adopted education policies in India were to deliver free and compulsory elementary education, vocationalisation of secondary education and achievement of quality

higher education with the provision of state-of-the-art technology in the education system.

- However, in comparison to the developed countries, the allocation of funds for education with reference to the share of GNP is very low in India.



3.8 FURTHER READING

1) Psacharopoulos, George. (Ed.). (1987) : *Economics of Education: Research and Studies.* Pergamon Press, Washington DC.

2) Kapila, Uma. (Ed.). (2009-10) : *India's Economic Development Since 1947.* New Delhi: Academic Foundation.



3.9 ANSWER TO CHECK YOUR PROGRESS

Ans to Q No.1: The educational policy is an approach to establish different priorities in education for the promotion of education undertaken by a country with available public resources. It means just providing the right incentives to the users and producers of education in a way conducive to the overall wellbeing of a country.

Ans to Q No.2 : There are two types of educational policies based on the resource constraints faced by the government. These two policies are Education Vouchers and Charter Schools. In Education Vouchers, students or parents are provided vouchers for education, which allows the user of education (students) to choose between different schools. On the other hand, the Charter Schools spilt the financing of education from the provision of education. This policy is nothing but to open government schools with the help of the public resources to provide free or subsidised education to the students of a country.

Ans to Q No.3 : There are many reasons why a country needs an education policy. The main reason in both developed and developing countries

is to eradicate illiteracy. Moreover, we know that education is a merit good and it benefits the individual with higher future income and thus increases the national income. It also benefits the society with the positive externalities created by it. Thus in some countries like in India, the important reason of an education policy is to provide free and compulsory elementary education.

Ans to Q No. 4 : There were many education policies undertaken by the British in India. Among them, the first important policy was the famous note by Macaulay dated February 2, 1835 under the administration of Lord William Bentinck. The second such education policy was Woods Despatch initiated by Sir Charles Wood in 1854.

Ans to Q No. 5 : Before the Independence, the British ruled India and there were numerous education policies undertaken under the British rule. However, during this period, the promotion of education was not the main objective of the British and hence the development of education was not substantial. The development of education under the British rule was mainly limited to the needs of the colonial power. The prominent objectives of education provided by the British were to spread English education in India and disseminate western culture in the Indian subcontinent.

Ans to Q No. 6 : After the Independence in 1947, the Govt. of India started several education policies to improve the education system in the country. However, the main policies are Education Commission on Education 1964-66, National Policy on Education (NPE), 1968 and National Policy on Education (NPE), 1986 which was revised and modified in 1992.



3.10 MODEL QUESTIONS

A) Short Questions (answer each question in about 150 words)

Q 1. What is education policy? Explain.

Q 2. What are the different types of education policy? Explain.

Q 3. Why is an education policy important?

Q 5. What were the main objectives of education policies under the British rule?

B) Long Questions (Answer each question in about 300-500 words)

Q 1. Describe the main education policies of the British in India.

Q 2. Explain in detail the Education Commission on Education 1964-66.

Q 3. Explain in detail the National Policy on Education of 1968.

Q 4. Explain in detail the National Policy on Education of 1986.

Q 5. What are the main policy issues of financing Education in India? Discuss.

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UNIT 4 : EDUCATION AS A PUBLIC GOOD

UNIT STRUCTURE

4.1 Learning Objectives
4.2 Introduction
4.3 What is Public Good?
4.4 Difference between Public Good and Private Good
4.5 Whether Education is Public Good or Private Good?
  4.5.1 Education as Public Good
  4.5.2 Education as Mixed Good
  4.5.3 Education as Merit Good
4.6 Lets Us Sum Up
4.7 Further Reading
4.8 Answers to Check Your Progress
4.9 Model Questions

4.1 LEARNING OBJECTIVES

After going through this unit, you will able to-

- state what public good is
- explain under what conditions a good is called public good
- state the difference between public and private good
- explain whether education is public good or merit good or mixed good.

4.2 INTRODUCTION

Education is one of the important factors of economic development in the underdeveloped and developing countries in the world. Available literature shows many of the important contributions of education such as- contribution to human capital formation through supplying highly skilled and trained workforce in the economy, contribution to Research & Development (R&D) and contribution to social development and so on. Due to these types of benefits, all the countries in the world have given top priority to education in their development programmes.

4.3 WHAT IS PUBLIC GOOD?

In a layman's language, public goods are those goods meant for the public and provided by the government. However, in the terminology of economics, public good is not something that is good for the public. Goods, which have the properties such as non-rivalry and non-excludability of consumption, are called public goods. Thus, for ascertaining a good as public good, we have to verify the following two properties of consumption:

(i) Property of Non-rivalry: A good is non-rival when the consumption of the good by one person does not reduce the amount or quality of the good available to all other persons. For example, use (consumption) of streetlight by one person does not reduce the amount of light available for other persons on the street. Thus, street light is non-rival good.

(ii) Property of Non-excludability: A good is non-excludable when we cannot exclude an individual from the consumption of that good. For example, we cannot exclude an individual to use street light available on the street. Thus, street light is also non-excludable good.

From the above discussion, we have understood that street light is public good because the consumption of streetlight is non-rival as well as non-excludable. Similarly, we can also label national defence, peace and security of a country, etc. as public goods.

4.4 DIFFERENCE BETWEEN PUBLIC GOOD AND PRIVATE GOOD

Unlike public goods, the co.nsumption of private goods is based on rivalry and excludability. For example, a piece of chocolate, because if an individual consumes that piece of chocolate completely then the chocolate will be finished and there will be no leftover of the chocolate for others to eat. On the other hand, you can exclude other individuals to eat your chocolate easily by hiding. Thus, a piece of chocolate is private good.

Table 1: Difference between public goods and private goods

Public Goods	Private Goods
(i) The consumption of public goods is non rival. (ii) The consumption of public goods is also not excludable.	(i) But the consumption of private goods is rival. (ii) The consumption of private goods is excludable.

However, the classification of the goods based on two properties of consumption can be shown with the help of the following Table. In the first quadrant (Quadrant I), it is shown that these goods are both rival and excludable and that is why these goods are called pure private goods. But, in the fourth quadrant (Quadrant IV), the goods are both non-rival and non-excludable and thus these goods are called pure public goods. On the other hand, the goods in the second and third quadrant (Quadrant II and Quadrant III) have one property of either rivalry or excludability.

Table 2: Difference between public goods and private goods

	Rival	Non-Rival
Excludable	**Quadrant I** (*Both rival and excludable*) Examples: ➢ Chocolate ➢ Milk ➢ Land *These are pure private goods.*	**Quadrant II** (*Non-rival but excludable*) Examples: ➢ Television Signals ➢ Telephone Network ➢ Higher Education *These are mixed goods.*
Non-Excludable	**Quadrant III** (*Rival but Non-excludable*) Examples: ➢ Public Park ➢ Health care ➢ Fish stocks of natural pond *These are mixed goods.*	**Quadrant IV** (*Both non-rival and non-excludable*) Examples: ➢ Air, wind, etc. ➢ Streetlight ➢ Defence system of a country *These are pure public goods.*



CHECK YOUR PROGRESS

Q 1. What is a public good?

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Q 2. What is meant by 'Non-rivalry'?

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Q 3. What is known as Non-excludability?

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Q 4. What is a private good?

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Q 5. Differentiate between public goods and private goods.

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4.5 WHETHER EDUCATION IS PUBLIC GOOD OR PRIVATE GOOD?

The debate whether education is public good or private good gained both national and international importance among the policy makers and academicians in the last couple of decades. However, the debate also asserts that education is a commodity and challenges the existing nature of education, i.e. the role of government in education. In 1987, the Government of New Zealand agreed for the first time that education is a public good and it should be provided with the help of government fund. The decision of the Government of New Zealand was severely criticised and debated throughout the world. Nowadays, most of the countries of the world provide education, especially elementary education, with the help of the public fund of the government.

4.5.1 Education as Public Good

From the above discussion on public goods, education can be defined as a public good because it meets two properties, namely non-rivalry and non-excludability. Education is non-rival because the education achieved by one student during schooling does not diminish the amount of knowledge available to other students. On the other hand, non-excludability of education implies the impossibility of excluding one student from taking admission in school.

However, in case of higher education, it appears that there is a possibility of a consumer's exclusion through price such as high tuition fees. Thus, education may not be included in the category of pure public goods, since it partially fulfills the two characteristics attributed to public goods. Thus, education may be included in the category of mixed goods.

4.5.2 Education as Mixed Good

According to the classification of goods, mixed goods have characteristics of both pure public goods and pure private goods. Thus, education may be defined as mixed goods because it has characteristics such as non-rivalry and excludability. These goods benefit both the individual consumer and the society as a whole. There are many positive spillover effects (externalities) of education like the improvement of health, decline of criminal activities, reduced fertility, etc. Although the completion of a programme of education, especially higher education, brings private benefits to individuals such as obtaining a higher wage; the society as a whole benefits from a higher level of resources collected for the national budget, which is available to finance public utility goods and services.

But, mixed goods, such as education, are consumed collectively which can lead to congestion problem. An increase in the number of new students in a particular class does not diminish the amount of knowledge available but can lead to a congestion of the class-

room, which may lead to low quality of the education in the classroom.

4.5.3 Education as Merit Good

Musgrave and Adam Smith defined education in the field of merit goods because the benefits of education have a visible impact on the society. Educated population provides other benefits than private benefits felt by the individuals, meaning that such a population can increase the future value of a nation's potential. These goods have higher positive externalities than private benefits, thus justifying the need for state intervention in the financing of this sector. This type of good is considered so useful that its funding from private sources is supplemented by public funds. Moreover, referring to the possible negative externalities resulting from the exclusion of people from accessing knowledge resulting from research, limiting the possibilities for exclusion and funding research from public funds generates the occurrence of positive externalities.



4.6 LETS US SUM UP

- We have learned that education, especially higher education, meets limited aspects of pure public goods namely non-rivalry and non-excludability of the good.
- The subtle nature of education makes the classification of education as public good very difficult. Thus, education nowadays can be placed in the category of public goods, mixed goods and merit goods.
- The ambiguity surrounding the classification of education as good in one of the three categories discussed above determine the necessity to extend further discussions and clarification in terms of individual and social benefits of education.
- However, education can be termed as public good, mixed good and even private good depending on the two properties applicable.



4.7 FURTHER READING

1) Psacharopoulos, George. (Ed). (1987): *Economics of Education-Research and Studies*. Oxford, England: Pergamon Press.



4.8 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q No 1: In the layman's terms, public goods are those goods meant for the public and provided by the government. However, in the terminology of economics, public good is not simply something that is good for the public. Goods, which have the properties such as non-rivalry and non-excludability of consumption, are called public goods.

Ans to Q No 2: A good is non-rival when the consumption of the good by one person does not reduce the amount or quality of the good, being available to all other persons. For example, the use (consumption) of streetlight by one person does not reduce the amount of light available for other persons on the street. Thus, street light is non-rival good.

Ans to Q No 3: A good is non-excludable when we cannot exclude an individual from the consumption of that good. For example, we cannot exclude an individual to use streetlight available on the street. Thus, streetlight is also non-excludable good.

Ans to Q No 4: A good is private good when the consumption of the good is rival and excludable. A good is rival when the consumption of the good by one person reduces the amount or quality of the good available to all other persons. On the other hand, a good is excludable when we can exclude an individual from the consumption of that good.

Ans to Q No 5: Based on the two properties of non-rivalry and non-excludability, we can differentiate between public goods and private goods.

Firstly, the consumption of public goods is not rival but the consumption of private goods is rival. Secondly, the consumption of public goods is also not excludable but the consumption of private goods is excludable.



4.9 MODEL QUESTIONS

A) Short Questions (Answer each question in about 150 words)

Q 1. What is a public good? Explain with suitable examples.

Q 2. Explain the properties of public good.

Q 3. On what condition is a good called private good? Explain with suitable examples.

Q 4. How do the goods are classified in economics?

Q 5. What is a mixed good? Explain education as mixed good.

Q 6. What is a merit good? Explain education as merit good.

B) Long Questions (Answer each question in about 300-500 words)

Q 1. How would you like to explain education as public good? Differentiate between public goods and private goods.

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UNIT 5 : HUMAN CAPITAL APPROACHES TO EDUCATION

UNIT STRUCTURE

5.1 Learning Objectives

5.2 Introduction

5.3 Difference between Human Capital and Physical Capital

5.4 Sources of Human Capital Formation

5.5 Human Capital Formation in India

5.6 Gary Becker's Theory of Human Capital

5.7 Approaches to Human Capital

5.7.1 Microeconomic Approach

5.7.2 Macroeconomic Approach

5.8 Problems of Human Capital Formation

5.9 Let Us Sum Up

5.10 Further Reading

5.11 Model Questions

5.1 LEARNING OBJECTIVES

After going through this unit, you will able to-

- explain the concept of human capital and discuss its sources
- distinguish between human capital and physical capital
- describe how human capital is formed in India
- understand the theory of human capital of Gary Becker
- discuss the different approaches to human capital.

5.2 INTRODUCTION

Human capital is one of the most debated topics in social sciences particularly in economics and education in the last couple of decades. The concept of human capital came into limelight in 1960s when an American economist Gary S. Becker published a book on human capital with the title 'Human Capital' (Becker 1964). Human capital refers to the fact that hu-

man beings invest in themselves by means of education, training and skill development and other activities like improving health condition, which raises their future income by increasing their lifetime earnings. According to Gary S. Becker, human capital as a form of investment by individuals in education up to the point where the returns are equal to the costs of participating in education. Returns are both private to the individual in the form of additional income and to the general society in the form of greater productivity provided by the educated (Becker G. S. 1964). With similar views, Schultz also opined that human capital is the knowledge and skills that people acquire through education and training and that this capital is a product of deliberate investment that yields returns (Schultz T .W.1961). Thus, human capital includes the natural ability, innate and acquired skills, knowledge, experience, talent, inventiveness in an individual. All these characteristics are components of the human capital. The essence of human capital creation lies in the belief that spending money at present shall help in procuring benefits in future. Forms of increasing the value of human capital are expenditure allocated on health, safety, science, research and education.

5.3 DIFFERENCE BETWEEN HUMAN CAPITAL AND PHYSICAL CAPITAL

The subtle definition of capital makes it very difficult to differentiate human capital from physical capital. However, some of the most important differences between human capital and physical capital can be discussed with the following table:

Human Capital	Physical Capital
(i) Human capital refers to investment in education, health, on-the-job training and other activities which increases labour productivity.	(i) Physical capital, on the other hand, refers to investment in factories, machinery, equipments etc. which increases further production.
(ii) Human capital is intangible and cannot be sold in the market.	(ii) Physical capital is tangible and can be sold in the market.
(iii) Human capital is not separable from its owner.	(iii) But, physical capital is separable from its owner.
(iv) Human capital can be coped (adjusted) with new technology.	(iv) But physical capital becomes obsolete when new technology arrives.
(v) Human capital provides both private and social benefits.	(v) But physical capital providesonly private benefits.

5.4 SOURCES OF HUMAN CAPITAL FORMATION

The sources of human capital formation are nothing but the factors through which human capital can be formed or created. There are many sources of human capital. Some of the sources are given below:

- **Investment on education:** Investment on education is the most important source of human capital because expenditure on education by parents increases the future income of their children. The income or salary of highly educated persons is much higher than the uneducated persons.
- **Investment on health:** Like education, health expenditure is also an important source of human capital. The productivity of a healthy person is much higher than the sick person. A sick labourer without access to proper medical facilities is compelled to abstain from work, which leads to productivity loss. Hence, the expenditure on health is an important source of human capital formation.

  On-the-job training: Many employers of business firms impart training to develop the skills of their labour force. The benefit of this type of on-the-job training is much higher than the cost of the training because it enhances the productivity of the labourers.
- **Information cost and migration:** Information cost is another source of human capital. Now a day, there are many opportunities for a highly skilled labour but there is information cost to gain these better opportunities because the person has to acquire information about the labour markets and other markets. Sometimes, the highly skilled person migrate from his or her home country to a foreign country in search of better jobs particularly from the developing countries (like India) to developed countries (like USA, UK etc).

5.5 HUMAN CAPITAL FORMATION IN INDIA

So far, we have 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 hu-

man capital formation. In India, human capital formation is slow and appalling because of low investment on education and health compared to the developed countries. Provision of basic education and health care are the responsibilities of the state and centre in a country like India. In India, the ministries of education at the union and state governments, 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) etc. regulate the education sector. Similarly, the ministries of health at the union and state level, departments of health and various organizations like the Indian Council for Medical Research (ICMR) regulate the health sector.

5.6 GARY BECKER'S THEORY OF HUMAN CAPITAL

As mentioned above, the concept of human capital came into limelight in 1960s. The American economist Gary S. Becker was one of the founders of the concept of human capital. Becker published a book on human capital with the title 'Human Capital' (Becker 1964). According to Becker, expenditure on schooling, health, on-the-job training or skill development and even labour market information is one type of investment, which increases future earnings of the individual. In this theoretical framework, an individual forgo current earnings and incur direct costs in return for higher earnings in future. Becker and other proponents of human capital who encouraged a tremendous amount of empirical work, and who generally supported the implications of the human capital, recognised that high levels of knowledge and skills are essential for the future success of an individual. Thus, spending on education is increasingly considered an investment into a collective future, rather than simplyas individual consumption. However, the economic view of education traditionally has employed the concept of human capital framework developed by Becker. Thus, the effects on earning due to investment in human capital in schooling, health and on-the-job are the main essence of the theory.

On-the-job training

On-the-job training in Becker's theory of human capital was discussed

so elaborately because it clearly determines the effect of human capital on earnings, employment and other economic variables. The workers' productivity directly depends on the on-the-job training in a firm. Moreover, it is one of the most important kinds of investment in human capital and its importance is often underrated.

Suppose, the labour and product markets are perfectly competitive and the firms are hiring employees for a specified time period. If the firm is profit maximising and there is no on-the-job training in the firm, the equilibrium condition is that when expenditures on labour or wage (W) total is equal to the marginal products or receipts (MP) in each time period. Symbolically,

MP = W…….. (1)

If the time period of employment is 'n' years and the market rate of discount (or rate of interest) is 'i' during the time period, then the equation (1) can be expressed as below:

$$\sum_{n=0}^{n} \frac{MP_n}{(1+i)^{n+1}} = \sum_{n=0}^{n} \frac{W_n}{(1+i)^{n+1}} \quad \text{……..(2)}$$

Now, suppose there is on-the-job training in the initial period and the total expenditure on the training is 'k', then the equation (1) will be as follow:

MP0 = W0+ k

where k is expenditure on training.

Therefore, the after the introduction of on-the-job training (k), the equation (2) can be expressed as below:

$$MP_0 + \sum_{n=1}^{n} \frac{MP_n}{(1+i)^n} = W_0 + k + \sum_{n=1}^{n} \frac{W_n}{(1+i)^n} \quad \text{…….. (3)}$$

$$=> \; MP_0 + G = W_0 + k$$

Where

$$G = \sum_{n=1}^{n-1} \frac{MP_n}{(1+i)^n} - \sum_{n=1}^{n-1} \frac{W_n}{(1+i)^n}$$

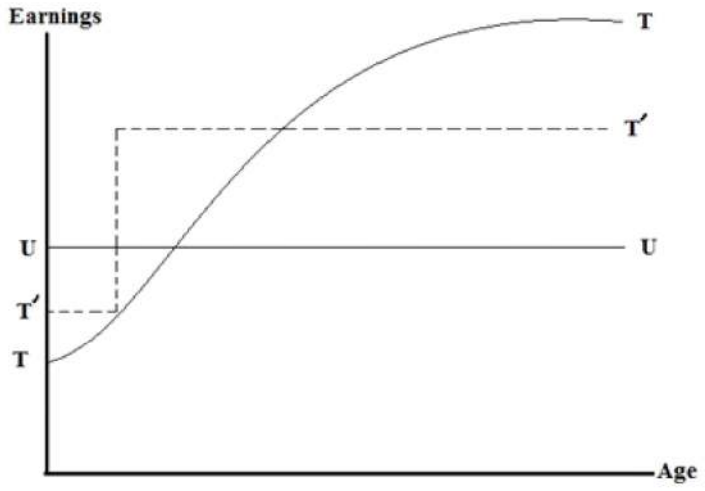
However, there is an opportunity cost of the training as well as of production because the time of training can be used to produce goods. Hence, if the opportunity cost is added into 'k' and 'MP', suppose it is 'C' and MP/ respectively then the equation (3) can be expressed as,

$$MP_0^{'} + G = W_0 + C \quad \text{..... (4)}$$

Thus, in the equation, the term G indicates the excess of future receipts over future costs and it is a measure of return to the firm from training. Hence, the difference between G and C is the return from and cost of training. From the equation (4), it is seen that the marginal product will be equal to wages if G equals C, which means it returns equal costs. It will be greater or less than the wages when the return is smaller or greater than costs.

This impact of training on earnings can be depicted with the help of the following figure (Figure 5.1).

Figure 5.1: Relation between Earnings and Age



In this figure, the relation between earnings and age has been shown. The UU line shows earning of untrained individuals, which is a straight line because untrained individuals earn the same amount of wage throughout their life. But, for trained individuals, the relation between earning and age can be depicted with the TT curve because for these individuals the curve is below the UU and it sharply rise above UU line after the completion of

training and the individual earns higher income in the future. This impact of earnings on age is shown with the help of dashed TT line for the trained individuals.

Moreover, according to Becker there are two types of on-the-job training- general training and specific training. General training is the type of training which is useful in many firms besides those providing it. For example, a doctor trained at one hospital may find his skills useful at another hospital. Thus, the training of a doctor is a general training. General training increases the marginal productivity of the trainees by exactly the same amount in the firms providing the training as well as in other firms. On the other hand, specific training is the type of training that increases productivity more in the firms providing it and less or no productivity in other firms. For example, training of the military (army, police etc.) is useful in the defence services but less or totally not useful in other sectors.

Schooling

According to Becker, a school is an institution which specialises in the production of training whereas a firms offers training in conjunction with the production of goods. Thus, schooling provides general training, which increases the productivity of the trainees or students, which in turns raise their earnings in future and make them contribute to economic growth. Thus, schooling has the same kind of implications as in case of general on-the-job training. Moreover, schooling also steepens the age-earning relation. Moreover, like schooling, investment in information and other knowledge also increases the real income. Information about price changes and wage rates offered by different firms enables an individual to get the highest paid job. In addition, information about the political stability and social system and their effects of different parties or social arrangements can also raise real income.

Investment on health

Investment on health is also one of the important determinants of improved human capital as considered by Becker. Now a day, better emotional and physical health is considered important determinants of earnings in all parts of the world because it has a significant influence on earnings.

But health like knowledge can be improved in many ways. A decline in the death rate at working ages may increase earnings by extending the period during which earnings are received. In addition, a better diet adds strength and stamina thus enhances earning capacity of individuals. The better working condition with clean and hygienic workplace, coffee breaks and so on can affect the morale and productivity of the workers.

5.7 APPROACHES TO HUMAN CAPITAL

In principle, there are two approaches to understand the nature and importance of human capital-microeconomic approach and macroeconomic approach. However, both the approaches perceive human capital as one of the factors of production, which in turn leads to economic growth.

5.7.1 Microeconomic Approach

The microeconomic approach to human capital recognizes human capital as one of the factors of production. In microeconomic view, there are two basic approaches- business approach and managerial approach. According to the business approach, human capital is considered one of the factors of production which includes material, property, and human labour-all of which also cost to the company. However, the human capital is intangible and functions indirectly. It is the qualitative aspect of human labour as the factor of production. On the other hand, the managerial approach sees human capital as a business resource or asset and the knowledge capital, which forms part of the market value of the company. This approach also sees human capital as one of the factors of production and sources of economic growth.

5.7.2 Macroeconomic Approach

According to Becker, economic growth cannot be explained by the growth of physical capital and technological innovation alone. Investing in people (human capital) is the main source of economic

growth in a modern economy. The macroeconomic approach sees human capital as one of factors of production and sources of the economic growth and it is achieved through extensive and intensive use of factors of production. Thus, we come across extensive and intensive economic growth.

Extensive economic growth is the result of increasing the quantity of used production factors, which are land, labour and capital. Though we know that there are four factors of production, the fourth factor of production is entrepreneurship or organisation, which combines all the three factors land, labour and capital for final production. In economics, these factors of production have different meanings. Firstly, land as a factor of production includes all components of the natural environment. This source is often used for marking natural sources but some economists tend to connect this factor with capital. It was the decisive factor of production to achieve growth in the period before the Industrial Revolution. Secondly, labour means the total labour force employed in a firm. Thus, labour is another source of economic growth, which is achieved through the increase of the labour force. It is influenced by demographic trends, amount of labour force, scientific and technical progress level, the social division of labour and labour productivity in various sectors. Presently, modern technologies require fully skilled workers for the operation and maintenance. Therefore, it is necessary to increase the labour force qualification. Thirdly, capital is a rare resource. Capital consists of those durable goods that are in turn used as productive inputs for further production. Thus, the term capital is very wide and includes buildings, machinery, equipment and technology. It also includes human capital and hence capital is a source of economic growth. However, in the 1980s of the 20th century, the economists demerged capital on physical and human capital due to the inevitable importance of human capital.

Unlike the extensive economic growth, intensive economic growth is caused by the increase in production per unit of input.

This type of economic growth is influenced by the quality, efficiency and manner of combining production factors. The intensive growth factors include the technical progress and increase of the total factors productivity. The intensive growth factors include the technical progress and enhancement of the total factors of productivity. The determinants of aggregate productivity factors are the level of work, organisation, technology, technical support, the level of education, motivation of employees to increase their performance and also the natural and soil conditions. In the current period, which is characterised by rapid and extensive introduction of technical innovations, education is the most important factor. It contributes to the technological progress, factors of productivity growth, increasing value of the human capital and overall economic growth. New knowledge and skills must be adapted to the current needs and possibilities of concrete firms and economies in an innovative and creative way. Economists Th. Schultz and E. Denison emphasised that investments in education contribute to economic growth.

5.8 PROBLEMS OF HUMAN CAPITAL FORMATION

The growth of Europe and America has been based more on investment in physical capital than on human capital in their earlier phases of development. However, in the case of underdeveloped countries like India, the need for human capital in the form of educated persons in different vocations is greater to provide the missing components in the initial stage of their development. The major problems in human capital formation in India are:

- Rapidly growing population
- High rate of unemployment
- Shortage of persons with the critical skills and knowledge required for effective national development
- Inadequate or underdeveloped organizations and institutions for mobilising human effort
- Lack of incentives for persons to engage in particular activities which

are vitally important for national development

- Lack of manpower planning
- Lowering of academic standards



5.9 LETS US SUM UP

- The concept of Human Capital came into limelight after the publication of the book 'Human Capital' by Becker in 1964.
- The concept of human capital has dominated the economics of education. Human capital has influenced the analysis of labour markets, wage determination and other branches of economics including the economics of growth, economics of health and study of migration.
- There are many differences between human capital and physical capital in terms of tangibility and social benefits etc.
- The sources of human capital formation are investment on education, health and on-the-job training. Moreover, information cost and migration are also the other sources of human capital.
- In India, human capital formation is supervised and managed by many central and state level institute and organisations like UGC, AICTE, ICMR, etc.
- The theory of human capital developed by Becker was discussed in details. According to Becker, investment on on-the-job training, education, health and information are the main determinants of human capital.
- There are two approaches to human capital-microeconomic approach and macroeconomic approach.
- However, the investment in human capital remains a controversial issue. The assumption is that higher human capital increases the earning capacity. However, the increase in the lifetime incomes was criticised by a host of economists. They argued that the higher earnings of the educated workers simply reflected their superior ability rather than the specific knowledge and skills acquired during the educational process.

- In addition, it was argued that highly educated workers are more likely to come from rich family and higher social class in society and they tend to work in urban area rather than rural areas.
- The major problems in human capital formation in India are vast population, high rate of unemployment, lack of manpower planning etc.



5.10 FURTHER READING

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5.11 MODEL QUESTIONS

Q 1. Define the term human capital.

Q 2. What are the differences between human capital and physical capital?

Q 3. What are the sources of human capital? Explain.

Q 4. Write an essay on human capital formation in a country like India.

Q 5. Explain Gary Becker's theory of human capital.

Q 6. Explain the Microeconomic Approach to human capital.

Q 7. Explain the Macroeconomic Approach to human capital.

Q 8. Mention the problems of human capital formation in India.

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UNIT 6 : EDUCATION AND MANPOWER PLANNING

UNIT STRUCTURE

6.1 Learning Objectives

6.2 Introduction

6.3 Importance of Manpower Planning

6.4 Education and Manpower Planning

6.5 Manpower Planning and Economic Growth

- 6.5.1 Higher growth through Labour Productivity
- 6.5.2 Regulating Labour Market Imperfection
- 6.5.3 Provision of Information of Future Manpower Requirements
- 6.5.4 Addressing the Problem of Rural-urban Migration

6.6 Approaches to Manpower and Educational Planning

- 6.6.1 Social Objection Apprach
- 6.6.2 Rate of Reform Approach
- 6.6.3 Target setting approach

6.7 Problems of Manpower Planning in India

6.8 Lets Us Sum Up

6.9 Further Reading

6.10 Answers to Check Your Progress

6.11 Model Questions

6.1 LEARNING OBJECTIVES

After going through this unit, you will able to

- define the concept of manpower planning
- explain the importance of manpower planning
- identify the relationship between manpower planning and economic growth
- evaluate the problems of manpower planning.

6.2 INTRODUCTION

Manpower planning is also called human resource planning which implies an endeavour by a country to integrate economic development and educational planning. It is a deliberate attempt by the government to link the development of its educational system to the demand for educated manpower by the economies. In other words, it means placement of the right number of people and the right kind of people at the right place at the right time, doing the right things for which they are suited. This will lead to the achievement of goals of the organisation and hence, it would raise economic growth.

According to **Fadipe** (2011), manpower deals with human capital formation, allocation and utilisation etc. Manpower, also known as human resources, can be defined as the bulk of labour available for any particular kind of work. In more specific terms, it is the bulk of human beings with the relevant skills, energies, talents, knowledge and attitude that can be committed towards the production of goods and services.

Yesufu (2000) defines manpower planning as the process of determining and affecting a balance between the available or potential human resources of a nation and their effective disposition and utilisation.

Adiele (2006) defines manpower planning as a conscious and rational decision-making process geared towards defining the various courses of action that need to be carried out within an organisation. The ultimate purpose of manpower planning is to ensure regular and adequate supply and maintenance of relevant human resources in all sectors of the economy at all times.

6.3 IMPORTANCE OF MANPOWER PLANNING

The need of manpower planning in a developing countries like India is very important because of her rapid development of industrialisation and unprecedented growth of highly educated and skilled manpower. However, there are many reasons, which suggest for better manpower planning. Some of the important reasons of manpower planning are-

- Manpower planning helps to identify the demand and supply gap in labour force and takes quick actions to bridge the gap wherever required. This technique is called manpower forecasting.
- It helps to reduce the production of unnecessary manpower and thereby avoid future unemployment.
- It also helps to identify the national and international demand for skilled manpower and therefore facilitates training programmes to meet those demands.
- The rapid urbanisation in the developing countries especially in India increases the rural-urban migration of the labour force. Proper manpower planning reduces this type of migration in the developing countries like India.

6.4 EDUCATION AND MANPOWER PLANNING

The concept of manpower planning became very important for the underdeveloped countries particularly after the Second World War. After the end of the War, particularly in the last couple of decades of the twentieth century, there has been a rise of worldwide interest in education and manpower planning. The tools of manpower planning offer great promises for the special needs and problems of educational development in these countries, which in turn may lead to economic development.

The main reasons of the attention to manpower planning are - very high demand of education and larger allocation of funds on education. Moreover, a large part of the interest in manpower planning and forecasting has risen from the recognition that labour markets are imperfect and that surpluses and shortages of different categories of manpower exists side by side at all levels of economic activity. Thus, these loopholes in an economy are solved with the support of the combination of education and manpower planning. The joint support of education and manpower planning attempts to eliminate the human and economic waste involved in such loopholes by achieving a better matching between the outputs of the education system and the economic system.

6.5 MANPOWER PLANNING AND ECONOMIC GROWTH

Many economists and educationists supported the existence of positive relationship between manpower planning and economic growth particularly in the developing countries where different sectoral growth needs proper manpower planning in their path of expansion. High demand for technical and professional manpower should be fulfilled with proper manpower planning especially in the developing countries like India. However, many studies have accepted the importance and role of manpower planning in the rapid economic growth of a country.

6.5.1 Higher Growth through Labour Productivity

The high rate of economic growth measured in terms of higher growth rate of Gross National Product (GNP) is the sole goal of many developing countries. To attain this goal, many economists have examined the relative importance of investment in capital stocks, technical progress, changes in the quantity and quality of the labour force and other socio-economic factors. However, the contribution of manpower planning to economic growth is to increase the productivity or efficiency of the existing labour force. Proper distribution of labour force in exact quantity and quality in the different sectors of an economy raise the productivity of the labour and hence it may also lead to higher economic growth. The following are some of the contributions to economic growth:

6.5.2 Regulating labour market imperfection

One important role of manpower planning is that it reduces the negative impact of surpluses and shortages of the labour force by regulating the demand for and supply of labour force in the different sectors of the economy. Thus, it corrects the labour market imperfections and hence raises economic growth.

6.5.3 Provision of Information of Future Manpower Requirements

Beyond the regulation of the labour market imperfection, manpower planning also provides future requirements of the labour force which address the issue of potential unemployment in an economy. Moreover, on the basis of the manpower forecasting, the different sectors of an economy adopts their developmental strategy accordingly.

6.5.4 Addressing the Problem of Rural-urban Migration

The rural-urban migration is one of the main reasons of transformation of occupation structure in the developing countries like India. This problem may be solved with proper manpower planning in the country which in turn may initiate the regional rural development and hence the overall national growth.



CHECK YOUR PROGRESS

Q 1: What is manpower planning?

.....

.....

6.6 APROACHES TO MANPOWER AND EDUCATIONAL PLANNING

Broadly speaking, there are three approaches to education and manpower planning. These are- Social objective approach, Rate of return approach and Target setting approach. These approaches are discussed below in detail.

6.6.1 Social Objective Approach

This is the most common approach that has been applied in the underdeveloped and developing countries such as Latin America.

The social objective approach is based on some social objectives, which are more or less same for all the developing countries. Thus, it is nothing but some kind of social or political goals concerning the right of the population to education. This approach involves the projection and attempt to satisfy the social demand for education. Some of the most important social objectives of the developing countries are the eradication of illiteracy, the lowering of wastage rates, the need of increase of enrollment ratio in primary as well as secondary schools and the improvement of educational standards compared to other developed countries.

In this approach, the gap between the ideal state (the value required for the improvement) and the current state is estimated. Then, the cost of filling the gap is calculated and accordingly the government budget is determined for education. Thus, this approach heavily emphasises the non-economic factors and is supported by many educators.

However, there are many disadvantages of this approach. Firstly, it ignores all economic considerations-fiscal and occupational. Secondly, the social objective approach establishes no criteria for choosing between education and other socially desirable projects. Thirdly, the high social demand for universal literacy has led to a rapid expansion of the primary education system, which has left very few resources for the balanced development of secondary and higher levels of education.

6.6.2 Rate of Return Approach

The main objective of this approach is to maximise the rate of return of manpower planning. Rate of return approach estimates the human and financial resources and based on the available resources it attempts to maximise the objective function of rate of return. For example, Correa-Tinbergen-Bos Model, etc.

6.6.3 Target Setting Approach

As the name indicates, this approach firstly sets or forecasts some important developmental targets in the national level such as output and sectoral growth of the economy. These targets are based on the political, social and economic goals of a country. Focusing on the priority of the targets, this approach estimates the educated manpower based on the requirements of the economy. That is why; this approach is called target-setting approach. For example, Mediterrean Regional Project and Harbinson rule-of-thumb model etc. are some of the best examples of this approach.



CHECK YOUR PROGRESS

Q 2: What is social objective approach?

.....

.....

Q 3: What is rate of return approach?

.....

.....

Q 4: What is target-setting approach?

.....

.....

6.7 PROBLEMS OF MANPOWER PLANNING IN INDIA

There are many obstacles in the manpower planning processes particularly in the developing countries. Some of the problems of manpower planning in India are given below:

- **Lack of experts and professionals:** The main problem of manpower planning in a developing country like India is the lack of experts and professional in this field of manpower planning.
- **Loopholes in forecasting methodology:** Another problem of man power planning in the country is the implementation of faulty methodology while forecasting future requirements of manpower in

the economy.

- **Incidence of absenteeism:** Existence of absenteeism in the work place in the Indian context is another problem of manpower planning. Due to persistent and huge rural-urban migration of workforce in the country, the manpower planning process is facing many troubles. Moreover, illiteracy and paucity of skilled labour worsened the manpower planning process.
- **Lack of scrutiny and review:** Scrutiny and review of the methodology and implementation of manpower planning is very important for avoiding the loopholes in the future plan. However, manpower planning in India has no review and scrutiny system.
- **Rapid technological changes:** The technology used in every fields of life in the developing as well as developed countries is changing rapidly. In India, the parallel development of technology in the field of manpower planning is not satisfactory and sufficient.
- **Short-term goals:** Many of the goals and objectives of manpower planning in India are short term and hence the success of manpower planning is not satisfactory based on the allocation of resources.



LET US KNOW

Correa-Tinbergen-Bos Model:

The model was developed by Correa, simplified by Correa and Tinbergen and extended by Tinbergen and Bos. Hence, this model is popularly known as the Correa-Tinbergen-Bos model. This model relates the projected optimum growth stock of educated personnel to given rates of economic growth measured in GNP with the help of regression analysis. This model has been used in India and some African countries.

Mediterrean Regional Project

This project was undertaken by Organization for Economic Cooperation and Development (OECD) in 1960s in Greece, Italy, Portugal, Spain, Turkey and Yugoslavia. The main objective was to plan the long-term development of education in these six

Mediterranean countries. This model was originally formulated by Herbert S. Parnes, which is based on input-output model. The model forecasts the final desired output of the economy some years hence to estimate the number of enrolments in each of the main branches of education needed to produce the forecast output.

Harbinson rule-of-thumb model

This model was developed by Harbinson and Myers. The main objective of this model is to estimate the manpower requirements for economic growth. However, the rule-of-thumb of the model is that if output of a country grows by 'x' percent per year, then the stock of high level manpower should grow by '2x' percent, second level by '3x' percent and total employment by '0.5x' percent.



6.8 LETS US SUM UP

- Manpower planning is called human resource planning which implies an endeavor by a country to integrate economic development and educational planning.
- The need of the manpower planning in the developing countries like India is very important because of her rapid development of industrialisation and unprecedented growth of highly educated and skilled manpower in the country.
- Many economists in the last couple of decades propounded the positive relationship between manpower planning and economic growth.
- There are many approaches to education and manpower planning. The social objective approach, rate of return approach and target setting approach are very common approaches to education and manpower planning.
- In the Indian context, there are many problems in the manpower planning process. Some of these problems are lack of experts and professionals, faulty forecasting methodology, incidence of absenteeism, short-term goals, etc.



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6.10 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q No 1: Manpower planning is also called human resource planning which implies an endeavour by a country to integrate economic development and educational planning. It is a deliberate attempt by the government to link the development of its educational system to the demand for educated manpower. In other words, it means the placement of the right number of people, and the right kind of people at the right place at the right time, doing the right things for which they are suited for the achievement of goals of the organisation and hence it raises economic growth.

Ans to Q No 2: The social objective approach is based on some social objectives, which are more or less same for all the developing countries. It is nothing but some kind of social or political goals concerning the right of the population to education. This approach

involves the projection and attempt to satisfy the social demand for education. Some of the most important social objectives of developing countries are the eradication of illiteracy, the lowering of wastage rates, the need of increase of enrollment ratio in primary as well as secondary schools and the improvement of educational standards compared to other developed countries.

Ans to Q No 3: The main objective of the rate of return approach is to maximise the rate of return of manpower planning. The rate of return approach estimates the human and financial resources and is based on the available resources it attempts to maximise the objective function of rate of return. For example, Correa-Tinbergen-Bos Model, etc.

Ans to Q No 4: The target setting approach is the approach where forecasts of some important developmental targets are taken to be fulfilled in the national level such as output and sectoral growth of the economy. These targets are based on the political, social and economic goals of a country. Focusing on the priority of the targets, this approach estimates the educated manpower based on the requirements of the economy. That is why, this approach is called target setting approach. For example, Mediterrean Regional Project and Harbinson rule-of-thumb model etc. are some of the best examples of this approach.



6.10 MODEL QUESTIONS

Q 1: Define manpower planning?

Q 2: What is the importance of manpower planning?

Q 3: Write a note on education and manpower planning.

Q 4: Explain the role of manpower planning in economic growth.

Q 5: Write a note on different approaches of manpower and educational planning.

Q 6: Explain the problems of manpower planning in India.

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UNIT 7 : FINANCING IN HIGHER EDUCATION

UNIT STRUCTURE

7.1 Learning Objectives

7.2 Introduction

7.3 Importance of Financing in Higher Education

7.4 Types of Expenditure in Higher Education

7.5 Magnitude and Pattern of Expenditure in Higher Education

7.6 Growth and Trend of Expenditure in Higher Education

7.7 Problems of Financing in Higher Education in India

7.8 Let Us Sum Up

7.9 Further Reading

7.10 Answers to Check Your Progress

7.11 Model Questions

7.1 LEARNING OBJECTIVES

After going through this unit, you will able to-

- explain the importance of financing in higher education
- mention the different sub-heads of expenditure on higher education in India
- explain the magnitude and pattern of the expenditure in higher education during the period from 2004 to 2013
- elucidate the growth and trend of expenditure in higher education
- elaborate the present issues in the financing of higher education in India.

7.2 INTRODUCTION

Higher education, also known as tertiary education, is the level of education obtained after higher secondary in most of the developing countries like India. During the last few years of the 20th Century, especially in the 80s and 90s, there was a remarkable growth in the enrolment in higher education both in the developed and developing countries. In many

countries, higher education is partly demand-driven because of the increasing private rates of return, and in some countries, it is supply-driven due to the policy initiatives to increase the number of universities and other institutions of higher learning.

7.3 IMPORTANCE OF FINANCING IN ELEMENTARY EDUCATION

There is no dearth of empirical studies on the importance of higher education and it is beyond doubt that there is a positive relation between education and economic growth. The rate of return in higher education is high in terms of private return. Moreover, there are positive externalities of higher education, which raised the social rate of return of higher education. In other words, the consensus is that higher education provides considerable returns to individuals, which are well in excess of the potential rate of return on investing in the costs of undertaking a university course.

Nevertheless, the current notion of 'knowledge base economy' is completely dependent on higher education for professional expertise and other technical know-how. Research and Development (R&D) is another contribution of higher education, which is considered the most important factor of development.

7.4 TYPES OF EXPENDITURES IN HIGHER EDUCATION

Expenditure in higher education is one of the major expenditure heads of education in India. However, within higher education, there are many sub-heads of expenditure. These sub-heads of higher education in India as per the 'Analysis of Budgeted Expenditure on Education' published annually by the Ministry of Human Resource Development, Government of India, are given as below:

- Expenditure on Direction, Inspection and Administration: All expenditure incurred on administration and management of the higher education department is included in this budget head.

- Assistance to Universities: The financial assistance given to the state and central universities for improvement of infrastructure including construction of new universities is included in this head.
- Expenditure on Govt. Colleges: Total expenditure on Govt. colleges such as salaries to the college teachers, infrastructure development and administration expenses of the colleges are included in this budget head.
- Assistance to Non-Govt. Colleges: Unlike Govt. colleges, occasional financial assistance to non-govt. colleges is included into this head.
- Expenditure for Scholarships: Expenditure for providing scholarships to the students of colleges and universities pursuing higher education is included into this head.
- Other expenditure: All other expenditure related to higher education is placed under this head.



CHECK YOUR PROGRESS

Q 1: What is higher education?

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Q 2: What is the importance of financing in higher education?

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Q 3: What are the types of expenditure on higher education?

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7.5 MAGNITUDE AND PATTERN OF EXPENDITURE IN HIGHER EDUCATION

In the following Table (Table 9.1), the total amount spent (in crores) on higher education in both India and Assam has been shown from the period 2004-05 to 2013-14 along with the percentage share of Assam in the total expenditure of the country on higher education.

In the Table, it is seen that the total expenditure on higher education in India has increased from around 9503.21 crore rupees in 2004-05 to 47460.52 crore rupees in 2013-14. On the other hand, in Assam the total expenditure has increased from 260.25 crore rupees to 1382.84 crore rupees over the same period. Thus, the amount spent on higher education in India has increased by almost five-fold whereas in Assam the amount increased by more than five-fold over that period. But, the percentage share of Assam in the total budgeted expenditure on higher education in the country shows a very slow increasing trend from 2.7% to 2.9%with an average of 2.7% during the period from 2004-05 to 2013-14.

Table 9.1: Total Expenditure (Revenue) on Higher Education in India and Assam

(Amount in Crore Rupees)

Year	Amount		% Share of Assam
	India	Assam	
2004-05	9503.21	260.25	2.7
2005-06	11013.35	272.02	2.5
2006-07	12541.09	266.41	2.1
2007-08	14311.43	390.37	2.7
2008-09	18605.01	470.47	2.5
2009-10	22737.11	486.20	2.1
2010-11	29169.42	816.91	2.8
2011-12	33030.53	895.20	2.7
2012-13	40403.01	1492.07	3.7
2013-14	47460.52	1382.84	2.9

Source: Ministry of Human Resource Development, Government of India

Note: * Revised Estimates (RE) and ** Budget Estimates (BE)

However, the pattern of expenditure on higher education can be examined by the share of plan and non-plan expenditure in the total amount. In India, the share of plan expenditure in the total budgeted expenditure is increasing from around 14% in 2004-05 to 25% with a rising trend over the period. But, during the same period the share of plan expenditure in Assam is declining from 10% to meager 4% which indicates that the development aspect of the higher education in the state is not improving.

Table 9.2: Plan and Non-Plan Expenditure on Higher Education in India and Assam *(Figures are in Percentage)*

Year	India		Assam	
	Plan	Non-Plan	Plan	Non-Plan
2004-05	13.7	86.3	10.1	89.9
2005-06	14.4	85.6	4.0	96.0
2006-07	18.0	82.0	2.2	97.8
2007-08	21.4	78.6	1.5	98.5
2008-09	26.7	73.3	2.3	97.7
2009-10	24.4	75.6	6.1	93.9
2010-11	25.7	74.3	7.4	92.6
2011-12	27.7	72.3	13.8	86.2
2012-13	24.5	75.5	14.0	86.0
2013-14	24.6	75.4	4.0	96.0

Source: Ministry of Human Resource Development, Government of India

Figure 9.1: Percentage Share of Plan and Non-Plan Expenditure on Higher Education in India

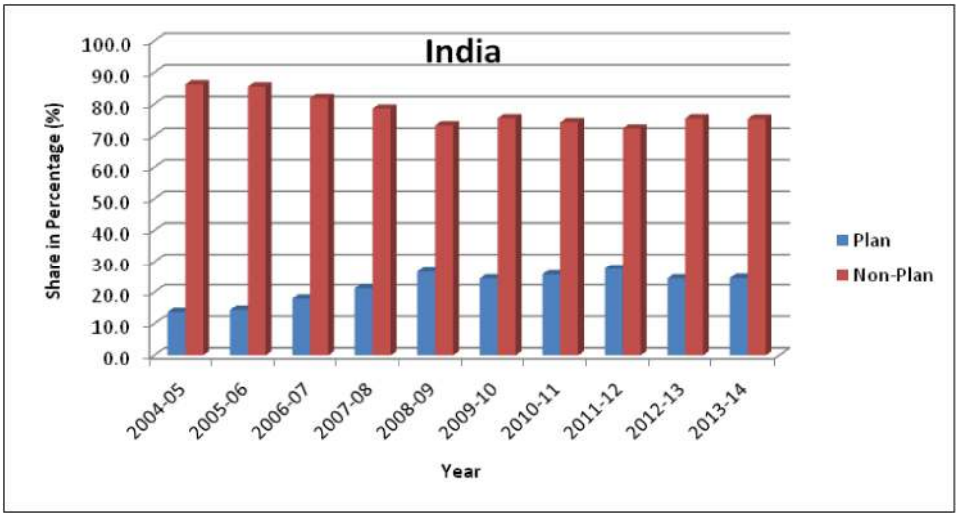
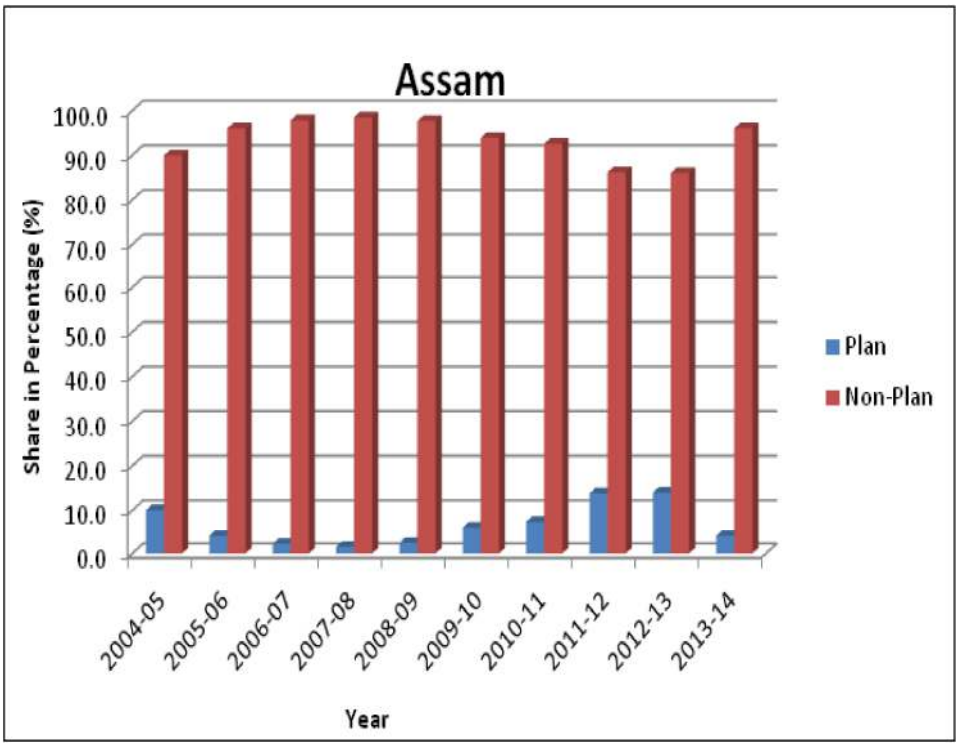


Figure 9.2: Percentage Share of Plan and Non-Plan Expenditure on Higher Education in Assam



7.6 GROWTH AND TREND OF EXPENDITURE IN ELHIGHER EDUCATION

During the period from 2004-05 to 2013-14, the growth rate of expenditure on higher education for both India and Assam has been shown in the following Table (Table 9.3). It is seen that the average growth rate of expenditure for India during the same period is more or less 20%, but in Assam, the growth rate is highly fluctuating from negative growth in 2006-07 and 2013-14 to very high growth rate of more than 60% 2010-11 and 2012-13.

Table 9.3: Growth Rate of Expenditure on Higher Education in India and Assam

Year	Growth Rate	
	India	Assam
2004-05		
2005-06	15.89	4.52
2006-07	13.87	-2.07
2007-08	14.12	46.53
2008-09	30.00	20.52
2009-10	22.21	3.34
2010-11	28.29	68.02
2011-12	13.24	9.58
2012-13	22.32	66.68
2013-14	17.47	-7.32

7.7 PROBLEMS OF FINANCING THE HIGHER EDUCATION IN INDIA

Like other sectors of education, there are many problems in financing education in India especially higher education. However, some of the important problems and loopholes in financing higher education are discussed below.

- **Inadequacy of Resources :** Like in case of elementary and secondary education in India, the main issue while financing higher education is the inadequacy of resources. Many international agencies on education emphasised that the total expenditure on education in a country should be at least 1% of GDP of the country. Currently, the expenditure on higher education in India is less than 1% of GDP.
- **Lack of Private Participation:** Lack of private participation in the financing of education, particularly on higher education, is one of the major obstacles of educational development in India. In most of the developed countries, the share of private investment on higher education is very high compared to India.
- **Misallocation of Resources and Under-utilisation :** Misallocation of resources is another problem of financing higher education in the country due to lack of expertise and proper planning. There are many

loopholes in the utilisation procedure of the fund while financing education in the country. Thus, inefficiency in terms of under-utilisation of resources while provisioning educational infrastructure is one of the major problems in financing higher education.

- **Lack of Accountability:** Lack of accountability of fund allocation is another problem of financing in education. In India, there is almost no accountability in the entire education system including higher education.



7.8 LET US SUM UP

- Higher education is the level of education obtained after the higher secondary in most of the developing countries like India.
- In case of some countries, higher education is partly demand-driven and in some other countries, it is supply-driven.
- The rate of return in higher education is high in terms of private return and there are positive externalities of higher education, which raised the social rate of return of higher education.
- Moreover, the need of technical know-how in the fields of Science and Technology and high demand of Research and Development (R & D) are some of the important necessities of higher education.
- Like other levels of education, higher education also has many expenditure sub-heads in financing in India.
- In both India and Assam, the budgeted allocation on higher education has increased by five-fold.
- Plan expenditure on higher education has increased for India, whereas for Assam, it has decreased during the period from 2004-05 to 2013-14.
- In India, the growth rate of expenditure on higher education is more or less 20% but in Assam, the growth rate is highly fluctuating.
- Finally, while discussing the problems of financing higher education in India, it is found that inadequacy of fund, lack of private participation, misallocation, underutilisation and non-accountability are the main issues.



7.9 FURTHER READING

1) Blaug, M. (1970). *An Introduction to the Economics of Education.* London: Allen Lane

2) Johnes, Geraint & Johnes, Jill. (Eds.). (2004). *International Handbook on the Economics of Education.* Cheltenham (UK): Edward Elgar Publishing Ltd.

3) Government of India. (2004 to 13). Analysis of Budgeted Expenditure on Education. New Delhi: *Annual Reports.* published by Ministry of Human Resource Development.

4) Varghese, N. V. & Tilak, J.B.G. (1991). *The Financing of Education in India.* Paris: International Institute for Educational Planning.



7.10 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q No 1: Higher education, sometimes known as tertiary education, is the level of education obtained after the higher secondary in most of the developing countries like India. During the last few years of the 20th Century, especially in 80s and 90s, there was a remarkable growth in participation in terms of enrolment in the higher education both in the developed and developing countries. In many countries, higher education is partly demand-driven because of increasing private rates of return and in some countries; it is supply-driven due to policy initiatives to increase the number of universities and other institutions of higher learning.

Ans to Q No 2: There is no dearth of empirical studies on the importance of higher education and it is beyond doubt that there is a positive relation between education and economic growth. The rate of return to higher education is high in terms of private return. Moreover, there are positive externalities of higher education, which raised the social rate of return of higher education. In other words, the consensus is

that higher education provides considerable returns for individuals that are well in excess of the potential rate of return on investing in the costs of undertaking a university course.

Nevertheless, current notion of 'knowledge base economy' completely depends on higher education for professional expertise and other technical know-how. Research and Development (R&D) is another contribution of higher education, which is considered the most important factor of development.

Ans to Q No 3: There are many sub-heads of expenditure within higher education. These sub-heads of elementary education in India are:

(i) Expenditure on Direction, Inspection and Administration

(ii) Assistance to Universities

(iii) Expenditure on Govt. Colleges

(iv) Assistance to Non-Govt. Colleges

(v) Expenditure for Scholarships and

(vi) Other expenditure related to higher education.



7.11 MODEL QUESTIONS

Q 1: Why does the government need to finance higher education?

Q 2: What is the magnitude of expenditure on higher education in India?

Q 3: Write on the growth rate of expenditure on higher education in India.

Q 4: Write on the pattern of expenditure on higher education in India.

Q 5: Explain the importance of financing higher education.

Q 6: What are the different types of expenditure sub-heads under higher education in India?

Q 7: Write a note on the magnitude and pattern of expenditure on higher education in India and Assam.

Q 8: Write a note on the growth rate and trend of expenditure on higher education in India and Assam.

Q 9: What are the problems of financing higher education in India?

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UNIT 8 : LIVELIHOOD, LABOUR MARKET AND LABOUR MOBILITY

UNIT STRUCTURE

8.1 Learning Objectives

8.2 Introduction

8.3 Sectoral Growth/Changes of Workforce in India/North East India/ Assam

8.3.1 Jobs in Agriculture Sector

8.4 Unemployment and Underemployment

8.5 Labour Mobility in North East India

8.6 What Pushes or Pulls People to Out-Migrate for Jobs from the North East Region

8.7 Mobility (Upward or Downward) of the Workers in the Labour Market/Job Sectors

8.8 Out-migration of the Skilled Personnel (Brain drain)

8.9 Let Us Sum Up

8.10 Further Reading

8.11 Answers to Check Your Progress

8.12 Model Questions

8.1 LEARNING OBJECTIVES

After going through this unit, you will be able to :-

- identify the changing behaviour of livelihood and labour mobility in the organised and unorganised sectors of India
- explain the sectoral growth and changes of workforce in India, Northeast and also in Assam
- discuss the unemployment and underemployment challenges in India, Northeast and Assam
- describe how brain drain is occurring in our country and how it affects the backbone of our economy.

8.2 INTRODUCTION

In a society, a rational adult person always puts effort to ensure the means for securing the basic necessities of life such as food, water, shelter and clothing for herself/himself and their dependents. To ensure the basic necessities a person needs a decent form of livelihood. Livelihood is defined as a set of activities or work, done either individually or as a group by using endowments (physical and mental), and also with the support of mechanical instruments to enhance human productivity. How decent is the livelihood, the monetary or physical returns depends on the capacity and skills of the person, the level of resource endowments which could be personal, of the community and of the State; as well as supportive regulations of the State to ensure law and order in the society and economy. Consider a person who has no land to make a living from farming, or possesses limited education, skills and money to take a concrete initiative, or enter a job in government or private sectors to ensure livelihood. He or she may have no other alternative than to work as daily wage earner in agriculture field, construction sites; pull rickshaw or do vending of certain basic goods. In this context, the role of the State is meant to ensure certain supportive regulations – that there is fixation of a decent minimum wage and fare, that no law and order anomalies that affect their daily earnings, and so on. The prime responsibility of a welfare State is to ensure that the initiatives for livelihood of common people do not get disturbed and are sustainable and dignified.

The avenues of livelihood (or employment) and income however do not always go as desired or towards sustainable direction. There emerge certain externalities (overcrowding of the unskilled, frequent *bandh* or political instability, natural calamities such as flood and erosion, decline in public spending in social and infrastructural sectors to name some of them) which force people to change their livelihood avenues or even to change the place of occupation in search of a better living. This applies for all people irrespective of their level of skills and educational attainments. Such developments bring in the issues relating to labour mobility in the labour

markets. Labour mobility or worker mobility is in general the occupational and geographical movement of the workers.

This **Unit** tries to address and understand the issues relating to labour mobility in terms of *five* perspectives. The First Section provides a brief overview of the changes in workforce across the main economic/ industrial categories. A look into the changes of workforce in the economic categories is important. This is because a decline in workforce in the agriculture and manufacturing sectors and a rise in construction or trading sector, have some inherent causes and explanation. The Second Section discusses the issues of underemployment (persons compelled to work intermittently) and unemployment, which indicate that there are not enough jobs—a condition which forces the people to move out from a particular geographical location in search for better opportunities. The Third Section uses empirical data to examine the outward movement of the people in search of employment from the northeast region of India. Underemployment and unemployment are the reasons that force people to look for opportunities in different places. The Fourth **Section** looks at the changes in the work status of the people belonging to the salaried, self-employed and casual labour classes, as these three forms indicate a differentiated level of dignity in our society. The Fifth Section looks at certain critical issues associated with the movement of skilled personnels from our country. Contrary to the unskilled, the movement of skilled personnels or brain drain give birth to some serious repercussions in the home country.

8.3 SECTORAL GROWTH/CHANGES OF WORKFORCE IN INDIA/NORTHEAST INDIA/ ASSAM

This section tries to explain how the data on changes of the workforce across the economic sectors help to infer the scenario of labour mobility to a significant extent.

In India, the workforce is classified into the National Industrial classification (NIC). The NIC 2008 (see Table 1.1) shows vast modification over the earlier classifications. NIC, 2008 now has 21 sections, 88 divisions, 238 groups, 403 classes and 1304 sub-classes of activities performed by

people. The classification takes into account and accommodates the changes the world of work has seen in contemporary times and all the activities incorporated into NIC 2008 are comparable with workforce classifications across the countries of the world. Moreover, the detailed classification of activities helps to keep a time series comparison with earlier NIC classifications (NIC, 2004, NIC, 1998, NIC 1987 etc), which had limited coverage of occupations. For examples, the NIC 1987 had covered 10 sections at one digit level, 72 divisions at two digit level and 461 classes at three digit levels. Such industrial classifications help to look/review at the changes in the world of work and labour market.

Table 1.1 Descriptions of main occupations in NIC, 2008

NIC 2008-	Description		Earlier board 9 industrial Sections divisions– followed till recent times
A	Agriculture, forestry and fishing	1	Agriculture
B	Mining and quarrying	2	Mining
C	Manufacturing	3	Manufacturing
D	Utility–Electricity, gas, steam and air conditioning supply	4	Utility
E	Water supply, sewerages, waste management & remediation activities		
F	Construction	5	Construction
G	Wholesale and retail trade, repair of motor vehicles and motorcycles	6	Trade and restaurants
H	Transportation and storage	7	Transport
I	Accommodation and food services activities	6	Trade and restaurants
J	Information and communication services	9	Public administration and community services

K	Finance and insurance activities	8	Financial services
L	Real estate activities		
M	Professional, scientific and technical activities	9	Public administration and community services
N	Administrative and support service activities		
O	Public administration and defence, compulsory social security		
P	Education		
Q	Human health and social work activities		
R	Arts, entertainment and recreation		
S	Other services activities		
T	Activities of households as employers		
U	Activities of extraterritorial organisations and bodies		

Along with the industries or sectors (NICs) in India, activities of the people are also captured in terms of occupations. Descriptions of occupations of the main categories in National Classification of Occupation (2004) are as follows-

Table 1.2: National Classification of Occupation, 2004, India

Occupational division code	Description of occupation
1	Legislators, senior officials and managers
2	Professionals
3	Technicians and Associate Professionals
4	Clerks
5	Service Workers and Shop and Market sales workers
6	Skilled Agricultural and fishery workers
7	Craft and related trades workers
8	Plant and machine operators and Assemblers
9	Elementary occupations
x	Workers not classified by occupations

The activity sectors are also classified as ***primary*** (agriculture), ***secondary*** (mining, manufacturing, utility and constructions) and ***tertiary*** (trade, transport, financial services and public administration and community services).

Labour and workforce data in India are collected and published largely by two major government agencies—Census of India and the National Sample Survey Office (NSSO). Census of India collects information from every household in the country. Census of India collects information on population and socio-economic issues in every decadal interval. On the other hand, NSSO conducts rounds of sample survey to address specific queries – employment, unemployment, consumer expenditure, morbidity and health care, unorganised services and manufacturing etc. Till June 2012, NSSO has conducted 68 rounds of survey to address certain issues which help in the planning process for development of the country, and

some issues are repeated in regular interval of rounds. For example, the survey on employment and unemployment and consumer expenditure is conducted in every five years. It is evident from NSSO and Census data that the job sectors in the states of India as well as of Northeast India have shown a clear shift towards tertiary sector or *petty tertiarisation* (mostly in informal activities). The sectors, which show increasing trends in offering opportunities to rural people, are now the construction and the transport sectors. Construction, trade, hotel, restaurant and transport sectors have shown significant growth in recent times in terms of workforce in urban areas of the region (all are tertiary sector activities). NSSO data also reveal deceleration of manufacturing activities (industries) in the states of Northeast region. Moreover, public administration and community services sectors have been offering lesser opportunities to the labour force in both rural and urban areas (see Table 2.3). Opportunities in these sectors largely depend on public spending by the State. It is observed that in contemporary times opportunities in the government sector job has declined significantly. On the other hand, it is estimated from the 57th round of NSSO survey that in the states of northeast India, the unorganised services (hotel and restaurants, transport and communications, real estates and renting, education, health and social works etc.) account for 10 to 18 percent of the total workforce in the service sector jobs of the region. In this sector, for example, if a person is engaged in private tuitions or practices medicine individually we can classify the person in unorganised services activity.

Rise in workforce in petty activities/ unorganised sectors reflect the constraints of an economy. Table 2.3 shows clear decline in the absorption of people in the agriculture sector. Apart from the rising population pressure and alienation from land, the agriculture sector at the present time is facing numerous constraints. People need access to resources, education and skill for survival following which they put effort to enter any form of odd jobs, for whatever may be the payment or return. Such lower end jobs provide a scope/platform to survive, and it is considered easy to enter such jobs compared to the jobs in organised or the formal sectors.



LET US KNOW

Organised sector: The work which are officially recognised and the timing hours are fixed, regular and paid under legal terms and conditions where jobs are under the protection of social security, are called organised sector. The organised sector or formal sectors in India refer to licensed organisations, that is, those who are registered and pay sales tax, income tax, etc. These include the publicly traded companies, incorporated or formally registered entities, corporations, factories, shopping malls, hotels, and large businesses.

Unorganised sector: In the unorganised sector, jobs are purely temporary i.e. not regular and treated as part time work. The works under the unorganised sector are not officially recognised and counted. It provides the short term sustenance of living. Unorganised sector, also known as informal sector or own account enterprises, refers to all unlicensed, self-employed or unregistered economic activity such as owner- manned general stores, handicrafts and handloom workers, rural traders, farmers, etc.

8.3.1 Jobs in the Agriculture Sector

The agriculture sector in Northeast India provides livelihood to the majority of people. It is reflective that the sector now has become unattractive, though it may be wrong to say that the sector is not accommodative. The sector contributes not more than 35 percent to NSDP in any of the states of the region. The crisis in the agriculture sector is reflected in declining prices of several crops and widening disparities in earning between the agriculture and non-agriculture sectors.

On the issue of accommodativeness, the figures of landlessness in the region, particularly in Tripura, (about 58 percent households has no cultivable land) and Assam (about 36 percent) are very high. This issue is alarming considering the fact that land is

the prime source towards assurance of livelihood. Contrary to this the unutilised proportion of cultivable land (Tripura 9 percent, Manipur 15 percent, Assam 20 percent, Arunachal 37 percent, Nagaland 58 percent, Mizoram 75 percent and Meghalaya 80 percent) could raise other additional issues. Unaccommodativeness and unattractiveness of the agriculture sector in the northeast region is reflected by low proportion of double cropped area (overall 41 percent in the region), lack of irrigational facilities (Manipur has the highest proportion of net irrigated areas which is 46 percent), low delivery of institutional agriculture credit and absence of insurance in agriculture sector. All these reflect certain institutional drawbacks towards creation and assurance of livelihood in this sector.



CHECK YOUR PROGRESS

Q 1: Try to understand the difference between the organised and unoraganised sectors in our economy.

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Q 2: Explore the constraints the farmers/cultivators face in your locality to sustain livelihood.

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ACTIVITY 11.1

Have interaction with few construction workers and street vendors. Is it easy to enter such activities for living? Try to understand their life histories (social and educational background) and struggle for living in such occupations.

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Table1.3: Percentage distribution of usually working persons in principal status by board industry divisions

Rural

		Agri	Mining	Mfg	Utility	Const	Trade & Restau-rants	Transport	Finance, Busines	Pub. adm
Arunachal	1993-4	86.4	0.1	0.8	0.8	2.6	0.2	1.6	0.4	6.8
Pradesh	2004-5	81.9	0.0	0.4	0.9	4.1	2.2	0.6	0.6	9.2
	2009-10	75.6	0.9	1.3	0.9	5.5	3.3	1.7	0.3	10.6
Assam	1993-4	79.2	0.2	3.5	0.3	0.7	6.9	1.3	0.3	7.7
	2004-5	71.2	0.3	3.1	0.2	2.8	10.2	2.8	0.2	9.3
	2009-10	69.4	0.3	3.6	0.0	3.6	9.8	2.8	0.5	9.9
Manipur	1993-4	63.8	0.1	12.3	0.3	2.8	4.5	1.5	1.0	13.7
	2004-5	67.8	0.6	7.7	0.0	3.5	7.0	2.4	0.2	10.8
	2009-10	55.0	0.3	8.8	0.0	10.6	11.6	2.1	0.2	11.3
Meghalaya	1993-4	86.0	0.5	1.0	0.3	1.6	3.8	1.1	0.0	5.8
	2004-5	81.9	1.3	3.5	0.4	2.3	5.4	1.1	0.0	4.2
	2009-10	71.7	3.1	2.6	0.1	3.8	8.0	2.9	0.1	7.6
Mizoram	1993-4	88.9	0.0	0.5	0.2	1.2	1.9	0.1	0.1	7.1

		Agri	Mining	Mfg	Utility	Const	Trade & Restau-rants	Transport	Finance, Busines	Pub. adm
	2004-5	87.5	0.0	0.8	0.0	1.0	3.5	0.5	0.2	6.6
	2009-10	83.4	0.2	1.2	0.0	1.9	3.9	0.6	0.0	8.7
Nagaland	1993-4	74.9	0.6	0.2	0.3	1.8	4.5	0.6	0.0	17.1
	2004-5	77.2	0.0	2.0	0.5	1.9	4.7	1.7	0.3	11.5
	2009-10	72.0	0.2	0.3	0.6	2.4	7.0	2.7	0.1	14.7
Tripura	1993-4	47.6	0.0	5.4	0.2	6.8	10.7	3.2	4.0	26.3
	2004-5	42.8	0.0	4.9	0.0	11.6	11.1	3.8	0.1	25.8
	2009-10	35.4	0.4	6.6	0.0	29.8	12.4	4.5	1.5	9.5

Urban

		Agri	Mining	Mfg	Utility	Const	Trade	Transport	Finan-cial	Pub. adm
Arunachal	1993-4	7.4	0.0	13.3	3.6	9.3	15.0	5.3	2.9	42.5
Pradesh	2004-5	11.2	0.0	3.6	0.2	8.1	22.7	2.4	1.3	50.4
	2009-10	14.0	0.2	1.5	2.5	9.6	19.4	4.5	1.3	47.2
Assam	1993-4	2.6	6.3	10.4	0.6	2.8	19.0	7.5	2.0	38.6
	2004-5	3.8	1.4	10.4	2.9	5.8	28.6	13.4	2.5	32.5
	2009-10	1.4	2.0	9.3	2.5	7.9	34.7	11.7	3.3	27.2
Manipur	1993-4	27.1	0.0	14.4	1.2	2.6	13.7	3.1	2.2	33.3
	2004-5	25.9	0.0	13.7	0.0	4.8	19.7	4.4	1.4	30.0
	2009-10	20.0	0.0	11.0	0.0	7.5	28.9	3.5	2.3	27.0
Meghalaya	1993-4	2.3	0.1	2.2	0.6	8.0	25.2	1.7	1.8	56.9
	2004-5	2.0	0.2	5.5	1.7	4.8	15.3	4.5	1.7	64.3
	2009-10	5.8	1.2	3.9	1.4	9.8	22.8	8.8	1.9	44.4
Mizoram	1993-4	41.1	0.1	4.4	0.3	4.8	14.0	1.3	0.1	33.1
	2004-5	36.2	0.1	5.1	0.0	4.9	17.1	2.6	1.2	32.8
	2009-10	36.2	0.6	4.7	0.1	8.3	16.7	3.9	0.3	29.1
Nagaland	1993-4	5.4	0.5	4.1	0.4	7.8	22.0	3.7	1.7	53.5
	2004-5	9.1	0.0	5.7	1.5	3.9	40.1	5.5	0.9	33.3
	2009-10	14.8	0.0	1.0	1.3	7.1	21.1	9.9	0.3	44.4
Tripura	1993-4	5.2	0.7	8.7	0.3	2.8	17.3	6.0	3.9	53.8
	2004-5	4.2	0.0	7.2	0.5	6.6	27.2	4.4	1.9	48.1
	2009-10	2.2	0.0	9.0v	0.0	16.9	23.1	10.7	4.2	33.9

8.4 UNEMPLOYMENT AND UNDEREMPLOYMENT

Unemployment is a serious issue for a country like ours. It refers to a situation in which people are unable to have a minimum livelihood for living. Unemployment leads a country into the line of poverty where people have to stay in empty stomach and hunger.

In terms of underemployment, people are relatively deprived to have a decent standard of living. There are many reasons behind the unemployment and underemployment like population explosion, holding part-time job despite having desiring fulltime work, over qualifications where

the employees have education, skills, experiences beyond the requirements of the job etc. On the other hand, due to the lack of manpower planning of the Government and insufficient employment opportunities in the varied socio-economic sectors, people suffer a lot and they become unemployed despite having the sufficient qualification, education, skills and experiences.

The changes revealed by data on our livelihood sectors (Table 2.3) reflect crisis in our economy and society. It may also appear that people with education and skill may not be able to find an appropriate job for decent living. Thus, if a person is available for work and do not have a job, whether sought work or not, is considered unemployed. In India, the figures of unemployment are given by NSSO reports. Data on unemployment are made available in every five year interval by the survey on the employment and unemployment situation in India. The NSSO data over the years reveal the rising trend of unemployment rate in the states of northeast India. However, the proportion of overall unemployed people is still smaller compared to the significant proportion of people living under poverty in the northeast region particularly in the populous states of Assam and Tripura (about 40 percent in rural Assam and about 20 percent in rural Tripura live under poverty as par 2009-10 data). In Assam, the unemployment rate among rural male is just 3.6 percent and urban male is 4.4 percent; in Tripura the figures are 6.3 and 9.3 percent respectively. This indicates that the numbers of the working poor outnumbers the unemployed. This is true for the country as a whole. The reason for this is that a person cannot remain unemployed for long, unless she/he gets some supports to sustain. This forces the people to engage in any form of work. It is evident that unemployment rates cannot represent the picture of a crisis situation in a country.

Along with the working poor people (it is inferred that the people under poverty are not necessarily unemployed), the figures of unemployed youths (in the 15-29 age group) reflect a scenario closure to the crisis of livelihood. Youth unemployment rate in urban areas was as high as 22.3 percent in Assam, 40.3 percent in Tripura, 19.6 percent in Manipur and 50.6 percent in Nagaland, much higher than the country average of 9.6

percent during 2009-10; and the situation has worsened over the years with the increasing pressure of population. The reason for youth unemployment rate, which shows a higher rate than the general rate of unemployment, is that a youth till a certain age can avail some support from her/his family. This may not be possible after a certain age, compelling him/her to enter any form of job. Moreover, low level of educational and skill attainment has compelled the majority of the people to shift or get engaged in certain upper end jobs that boomed in the liberalised environment (example - high paid jobs in IT and corporate sectors).

It may also be noted that school dropout rate is a serious cause of concern in many north eastern states, which inhibits the process of better human capital formation. Dropout rates for classes I-X are as high as 64.9 % in Arunachal, 77.6 % in Assam, 56.8 % in Manipur, 77.9 % in Meghalaya, 62.9 % in Mizoram, 74.9 % in Nagaland, 62.9 % in Tripura; all are much higher than the national average of 52.9 % in the year 2009-10 (school dropout data are made available by Ministry of Human Resource Development, Government of India) and a large section of dropouts becomes supplier of labour primarily to petty lower end job markets. This is the reason for which we see overcrowding of people in certain job sectors such as vending, sales, construction works and wages, and earning in these sectors are comparatively low to ensure a decent living. All these factors push the youth to look for job outside the region. The nature and extent of crisis in some pockets (infected by flood, erosion, conflicts) determine the degree of mobility of the labour force in some areas (Dhemaji and Marigaon in Assam) and show huge outflow of workforce.

Underemployment is commonly defined as under-utilisation of the labour time of the workers. Some persons are apparently employed, do not have work throughout the years due to seasonality of work, or there is no sufficient work for them. Sometimes, underutilisation of such workforce and their earnings are not visible and one needs to ask specific questions to find out the rate of underemployment. NSSO calculates the indicators of such invisible underemployment through a set of probing questions. These are addressed to the employed persons on their availability for additional

and alternative works and the reasons for seeking such additional/alternative work and their status of work (regular salaried, self-employed and casual workers).

NSSO (2009-10) data revealed that in Assam 7 percent rural male and 6.2 percent urban male did not work regularly during the year. Moreover, 13 percent rural male and 9.1 percent urban male were available for additional work. In addition to this, 11.1 percent rural male and 9.6 percent urban male were available for alternative work.



CHECK YOUR PROGRESS

Q 3: What do you mean by unemployment and underemployment?

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Q 4: Why do you think that people in our locality/village are looking for additional and alternative work?

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8.5 LABOUR MOBILITY IN NORTHEAST INDIA

Labour mobility is a current issue that can change the entire working nature in the world. Today, developing countries like India, China, Bangladesh, and Pakistan are facing so many challenges, problems, issues and constraints in terms of population and employment. Even in the competitive world we need skills as well as skilled population, that can be appropriately called manpower, which can bring the positive social transformation in society. But, unfortunately, due to the lack of proper planning and employment opportunities as well as economic inflation in the country, many people have to lose their job. They are not capable enough to get recruited in the public sector as well as in the private sector, and thus lead the boom in the economy in a country. On the other hand, there are so many people who have to look for employment opportunities in another country or place for their sustenance of living.

Thus, the underemployment and unemployment are the reasons that force people to look for opportunities in different places.

NSSO data on migrations (49th round of 1993 and 64th round of 2007-08) show the rising trend of out-bound people from the states of northeast region of India. The data show that among the total out migrants of the respective states in the region, the share of migrants to other states in the India (inter-state migrants) is as high as 37.2 percent in Manipur and 25.9 percent in Tripura which are higher than the country average of 23.2 percent (the rest of the out migrants are intra-district and inter-district migrants or it can be said as movement within the state). The rest of the states in the region (Sikkim 21.1 percent, Meghalaya 20.9 percent, Arunachal 18.8 percent, Assam 16.2 percent, Mizoram 15.6 percent and Nagaland 13.4 percent) also show significant share of out-migrants to other states of the country among the total out migrants. It means that out of the every 100 persons leaving home for longer duration for some reasons, 16 persons move out of their own state in Assam. Census of India data also shows the rising trend of out migration from the region.

Data of Ministry of Overseas Indian Affairs (MOIA) show that in the past five years (2006-11) the number of workers from northeast India granted emigration clearance has increased from about one thousand to more than three thousands. The state of Assam, which accounted for a larger share (99 percent in 2006) of outward bound workers from the northeast region, its share now has declined (78 percent in 2011) with more workers from states like Tripura and Arunachal taking part in the international labour market. MOIA data further show that the share of workers from the northeast region granted emigration clearance to the country's total has increased from 0.16 percent in 2006 to 0.50 percent in 2011. NSSO (2007-08) data show that out of the total out migrants from the respective states of the region, Sikkim (4.9 percent) and Tripura (2.8 percent) lead the share in overseas migration followed by Meghalaya (1.4 percent), Manipur (0.5 percent), Mizoram and Arunachal (0.3 percent each), Assam (0.2 percent) and Nagaland (0.1 percent) compared to all India figure of 3.8 percent.

NSSO data (2007-08, migration) show that people from the states

of north eastern region of India move out from their respective states largely for e**mployment** and **studies.** The proportion of people migrated out for these two reasons are much higher than the average of the country. For example, among the rural out-migrants, 62 percent from Arunachal, 48 percent from Assam, 64 percent in Manipur, 47 percent in Meghalaya, 54 percent in Mizoram, 39 percent in Nagaland, 50 percent in Tripura and 30 percent in Sikkim migrated out for employment compared to the country average of 31 percent. Similar trend is visible in the urban areas of the states. The overall data indicate that in the states of northeast India there is crisis to ensure a decent form of livelihood, and for this, people take efforts to move out in search of better jobs.



CHECK YOUR PROGRESS

Q 5: What do you mean by labour mobility?

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ACTIVITY 11.2

Consult the NSSO reports on Migration and Census of India data/ tables on migration. The tables indicate the type and nature of migrants and the reasons of movements. These are available in the internet.

8.6 WHAT PUSHES OR PULLS PEOPLE TO OUT MIGRATE FOR JOBS FROM THE NORTHEAST REGION

Despite a high literacy rate, the Northeast Indian region is characterised by the lack of adequate avenues for higher or technical education or vocational training. Further, there is a felt mismatch between the demand in the job market and supply of potential workforce from the local educational system – especially to meet the requirements of the new economy occupations and professional service sectors. Issues are also raised against the governments in the states of the region which have failed

to create employment opportunities and state like Manipur seems to be starting to seek employment opportunities outside the state by sending its young generation out.

Unsustainable agriculture in the hill states of the region, severity of flood and land degradation in many pockets of the valleys resulted in low agricultural income. There are evidences of significant decline in agricultural income in the flood affected areas of Assam. NSSO data too revealed that majority of households in rural northeast India cannot ensure food security from home grown food. Data of NSSO 50th round reflected 70 percent rural households in Tripura, 58 percent in Meghalaya, 57 percent in Mizoram, 54 percent in Arunachal, 44 percent in Assam and 36 percent in Manipur depend on market for food items as there are not enough home productions. Moreover, industrialisation processes in the region have been sluggish because of which the region fails to take advantages of its natural resources to use in industries, add value to the goods and ensure good return. Citation of just one example of forest reveals how ineffective regulations imposed by State in the region have failed to ensure sustainable livelihood. There has been rampant exploitation of forest cover in the region and this had led the Supreme Court to impose ban on timber felling in 1997. The fallout was that hundreds of saw mills and plywood factories were closed down since then which could have ensured livelihood for a large section if there were plans to use the forest resources in sustainable manner. Contrary to this, it is now evident that thousands of Assamese out-migrated youths now find jobs in the plywood factories in Kerala.

High rate of human development in certain states of India (such as Kerala and Goa) has created a vacuum in lower end job market. It is obvious that with the attainment of higher education and skills, people generally shift to upper end jobs (managerial and administrative jobs for example) and this creates vacancy in certain lower end (labour class) jobs. A look at this issue indicates that out-migrants from northeast region are mostly engaged in lower end jobs in the states of Goa and Kerala. Moreover, certain job sectors in BPO (Business Processing Outsource) companies like call centers, shopping malls and hospitality industries of the metro cities of India

have emerged. In the services and hospitality sectors, there are preferences for youth, particularly female workers from the northeast region. In such cities, even in the high end sectors, there are creations and opportunities of many lower end jobs (for example an IT sector also requires security services jobs).

8.7 MOBILITY (UPWARDS OR DOWNWARD) OF THE WORKERS IN THE LABOUR MARKET/ JOB SECTORS

There are certain reasons that a worker/person change their work status and establishments. A rational person always looks for upward mobility in the existing job or better opportunities at the labour market (alternative job) with the expectation of better earning. The world of work in contemporary times has become complex and challenging, and it is observed that people around us change their occupation, industry or status of work largely to ensure a decent living and future security. Such situations are commonly observed in day to day life.

On the other hand, people are also compelled to shift jobs for certain reasons. There is loss of existing jobs (due to retrenchment or closure of unit), lack of satisfaction in previous job, lack of job security, work place too far etc are some of the reasons for changing occupation.

NSSO (66th round 2009-10) survey revealed that about 0.4 (female) to 0.6 percent (male, mostly urban male) employed persons had changed their work status during two years preceding the survey. However, when the proportion of the employed person changed their establishments ranging from 4.3 to 5.5 percent; the proportion is higher in rural female than in rural male in all spatial categories (rural and urban). Assumption or observations in day to day life would reveal that with poor level of education and skills, it is difficult to change the work status or have an upward mobility in a job. It is however relativity easy to change an establishment of work (an attendant can change job to different shops or a teacher can shift to different private educational institutions), availing the same status, wages or salary. It can be agreed that the educational attainment level can help to change the

work status, but changes in establishments is more prominent among the illiterate and people with low level of educational attainment. These are the reasons that NSSO data reveal higher proportion of working people changing their work establishments and work status.

NSSO data reflects that change in work status is more among the regular wage/salaried person, than among the self employed and casual labourers. This is obvious, as the regular wage and salaried persons are more from the organised or formal activities. It is also revealed by the NSSO data that people having self-employment and doing casual works largely move to regular wage and salaried jobs. It also reveals people's expectation for regular incomes.

However, as the NSSO data reflects, there are evidences of shift or movement of self-employed person to casual jobs (downward movement). Such movement may indicate a crisis situation in the labour market. Several forms of self-employment are commonly observed in a society—from vegetable vendors, grocery shops, manufacturing units to business or consultancy services in architecture and technology. We may observe that it is not always easy to survive in the labour market as self-employed and derive a decent income. Often self-employed people shift or try hands in different activities, because of unsustainable return or income, and in certain extreme cases, there is no alternative than to shift to casual jobs.

8.8 OUTMIGRATION OF THE SKILLED PERSONNEL (BRAIN DRAIN)

In the previous sections we have looked into the labour mobility issues or the issues associated with the movement of the working class assuming certain crisis situations. We assumed the crisis to be lack of endowments—physical resources (land or money) as well as human capability (attainment of higher skills and education to play command in the labour market). The result, as we see, is the overcrowding of people in certain lower end jobs and subsequently derivation of poor wages or income. We also observe that people in Assam or in India show high disparity in the attainment of capability, and there is a section of people who have achieved

very high level of technical skills and education to compete at any level in the international labour market. A segment of this section of people move out of the country for different reasons.

Concept and issues of brain drain

The term 'brain drain' denotes the migration of highly skilled people from one country to another, particularly from the developing world to the developed world. Brain drain or human capital flight is a large emigration of individuals with technical skills or knowledge. The drain is normally due to lack of appropriate opportunities to get engaged, expectation of better life and working conditions, and also because of political instability in their own country.

Thus, brain drain means the immigrations of highly professional, technical manpower as well as human resources and skilled person from the developing to the developed countries. The outflow of the skilled personnels from the developing countries is mainly directed to the USA, UK, Canada, Australia and other advanced countries. Here, the thing is that the brain drain is qualitatively different from the ordinary migration like migrations from rural to urban for searching the work just meet the daily needs etc . The fact of brain drain is related to the intellectual matter.

Brain drain is usually regarded as an economic cost. It is not only that the country loose services of skilled personnels, as their skill acquisition is primarily based on the education and trainings provided/sponsored by the government. It is considered parallel of capital flight (or movement of financial capital) from the country.

Perception may be that brain drain can be prevented by providing adequate opportunities and provisioning to the individuals who have skill and expertise. This is however not possible for the reasons that in the era of globalisation, wide dissemination and access to the information has helped people to explore, compare and move out for better opportunities and living.

Overall, we may see that brain drain or emigration is generally driven by both push (lack of appropriate opportunity in own country) and pull factors (expectation and existence of a better work environment and life in countries of destination). The main push factors from the home front include

dissatisfactions arising out of unattractive remuneration packages; while pull factors include expectation of better living standards. These factors have common global pattern and India is no exception. Khadria (2006) had shown that the percentage of the Indian immigrants among all global immigrated admitted in US had increased from about 5 percent in 1999 to about 25 percent in 2005. This may reveal dominance of India in the knowledge market of the world. Data for the 2012 show that among all immigrants to US, the share from India accounted for about 6.5 percent. The decline in India's relative share is largely because of the significant rise in inflow from other Asian and Latin American countries to the US.

Impacts of Brain Drain

The impact of 'brain drain', on developing nations' economy is quite difficult to estimate. This is because we do not have data on this issue. The state of Kerala has considerable number of out-migrants (work in both upper and lower end jobs) outside India. Considering only the case of remittances sent by the emigrants, an estimate indicates that the effect of remittances on Kerala's per capita income in 2003 was increased by Rs. 5678 in the total per capita income of Rs. 31,442. The end uses of remittances were mainly for the subsistence of the emigrants' relatives back home. Remittances are also used for construction of houses and it had led to boom of construction activities in Kerala, which subsequently generated employment in this sector.

Economic theories suggest that brain drain has both supply side and demand side effects on an economy. The supply side effect in this case is a reduction in the labour force (Beine et al., 2001), resulting in an inward shift of the home country's production possibility curve (PPC), and so the productive capacity of the country falls. The volume of emigration of people, their education and skills and the amount of money (savings/ investment) taken with them would determine the overall affects.

On the demand side, brain drain affects both public and private consumption and investment spending. It is assumed that people with higher qualification and skill have better income and so the capacity to spend. Brain drain also reduces the revenue base through decreases in incomes

and corporate taxes, as well as other forms of tax collections. This inevitably affects a State's tax base and subsequent allocations for welfare provisions.

Contrary to the assumptions stated above, there are opinions that brain drain does not lead to a loss in economic welfare of the home country. This is mainly because there are other workers who can replace the emigrants quite easily. For example, countries like India has surplus labour pool (see NSSO data on educated and youth unemployment and underemployed) from which replacement workers can be drawn easily. There are however argument to contradict this – the surplus pool of labour may not be able to successfully replace the highly skilled workers who have left. This is particularly evident in the areas of health, education and other specialised services.

Moreover, for the State the opportunity costs of investing on emigrated manpower (skilled) is high—the resources could have been used in upgrading infrastructure and technology in schools, hospitals and other vital public services of the country.

Highly skilled personnel, products of our public institutions, consume a large share of the country's education budget. As the money for the budget comes from the public funds, contributed through taxes paid by people or even by donor agencies as aid or loan; the country gain little from investing on people who chose to work outside the country.

Shortage of Professionals

Our country is currently experiencing shortage of skilled personnel in certain professions. In such circumstances, the migration of highly skilled manpower makes it difficult or constrained to ensure development interventions. It is often reported that our educational and health institutions suffer from a shortage of staff. Hospitals face not only a shortage of competent doctors and nurses but there are also shortages of medical professionals in all components of health services.

There is an argument that highly skilled emigrants generate a high income in foreign currency for the country of origin. An estimate for 2005-06 show that the remittances account for 3 percent of GDP in India. Information on investments made by the NRI could reveal a picture on this.

It may be noted that the money generated in foreign currency alone cannot put a country in the path of development. Regulatory supports of the State are important for establishment of international businesses or investments in the development sectors.

It may be that the remittances (see annual reports of Ministry of Overseas Indian Affairs) made by the skilled migrant contribute essentially to the private and family benefits of the individuals; the country gains somewhat less in the process. Moreover, such form of out- migration could also induce negative impact at home and society. At home, front impacts are anticipated on loneliness of the family members and elderly people. It appears that there is a dearth of research or studies to understand the impact of brain drain on the development activities for the home country.

***Assumption and issues for exploration*:**

The highly skilled emigrant group do not necessarily remit more, while the unskilled manual workers remit much more living in a hardship at an alien country. The remittance contribution made by non-highly skilled workers provides better public benefit to the home country. Consider the cases of remittance made by workers in lower end jobs engaged outside Assam. Explore where and how the remittances are used (procurement of basic household needs and construction of a house. Also consider the cases of remittances made by highly skilled persons engaged/employed abroad. Do they remit what the probable avenues remittances are spent (consumer durable, land, foreign trips of the relatives)



CHECK YOUR PROGRESS

Q 6: What do you mean by brain drain?

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Q 7: Identify some basic causes for which brain drain is happening in our country.

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8.9 LET US SUM UP

In the beginning of the unit, we have learnt about the importance and need of livelihood.

- It is evident from NSSO and Census data that the job sectors in the states of India as well as northeast India have shown a clear shift towards the tertiary sector or *petty tertiarisation* (mostly in informal activities). The sectors, which show increasing trends in offering opportunities to rural people, are now the construction and the transport sectors, mostly in the non-motorised sector.
- Construction, trade, hotel and restaurant sectors and transport sector have shown significant growth in recent times in terms of workforce in urban areas of the region (all are tertiary sector activities). NSSO data also reveal deceleration of manufacturing activities (industries) in the states of northeast region.
- Moreover, public administration and community services sectors have been increasingly offering lesser opportunities to the labour force in both rural and urban areas
- Unemployment refers to a situation in which people are relatively deprived of having a decent standard of living.
- There are many reasons behind the unemployment problems like population explosion, holding part-time job despite having desiring fulltime work, over qualifications, where the employee has education, skills, experiences beyond the requirements of the job etc.
- On the other hand, due to the lack of manpower planning of the Government and insufficient employment opportunities in the varied socio-economic sectors, people suffer a lot and they become unemployed despite having the sufficient qualification, education, skills and experiences.
- There are certain reasons that a worker/person change their work status and establishments. The world of work in contemporary times

has become complex and challenging, and it is observed that people around us change their occupation, industry or status of work largely to ensure a decent living and future security. Such situations are commonly observed in day to day life.

- On the other hand, people are also compelled to shift jobs for certain reasons. There is loss of existing jobs (due to retrenchment or closure of unit), lack of satisfaction in the previous job, lack of job security, work place too far etc. are some of the reasons for changing occupation.
- Out migration of the skilled personnel is a serious concern for our country. The continuous migration of skilled personnel affects the entire economy badly.
- The term 'brain drain' denotes the migration of highly skilled people from one country to another, particularly from the developing world to the developed world.
- Brain drain or human capital flight is a large emigration of individuals with technical skills or knowledge.
- The drain takes place due to the lack of appropriate opportunities to get engaged, expectation of better life and working conditions and also due to the political instability in one's own country.



8.10 FURTHER READING

1) Chyrmang, R. (2011). *Magnitude of Migration from North East Region of India in S. I. Rajan (edited), Migration, Identity and Conflict, India Migration Report, 2011.* Routledge, New Delhi

2) Ramesh, Babu P (2012). *'Strangers in their own land: Migrants from the Northeast in Delhi',* Economic and Political Weekly, Vol 47, No22

3) Gazi Mahabubul Alam and Kazi Enamul Hoque (2010) Who gains from "brain and body drain" business -developing/developed world or individuals: A comparative study between skilled and semi unskilled emigrants, *African Journal of Business Management* Vol. 4 (4), pp.

534-548, April 2010; Available online at
http://www.academicjournals.org/AJBM

4) Binod Khadria (2006) India. *Skilled migration to the developed countries, labour migration to the gulf.* National University of Singapore

8.11 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q No 1: The organised sector is a formal sector. It is officially recognised and registered. The working hours are fixed and regularly paid under the legal norms and regulations. The employees can access the opportunities under the provisions of social security. But, on the other hand, the unorganised sectors are mainly informal sector. It is under private domain. The working hours are temporary in nature, no formal rules and regulations have to be followed in the unorganised sector. In the Indian context, people are engaged in the informal sectors for getting the daily livelihood. Due to the lack of proper public/ Government employment opportunities, even experienced and skilled persons also have to do some work in the unorganised sector that are not officially recognised.

Ans to Q No 2: The farmers and cultivators are mostly engaged in the unorganised sectors. They do hard labour for their sustenance of living. They are not able to reap the profits of their work. It is because, in the rural areas, there is a lack of market where they are not able to contact directly with the buyers. Eventually, the profit making businesses are done by the third party for whom the actual hard labourers are always deprived to get their rights. Even the farmers who are engaged in the rural areas, are not aware of present market, the use of proper way of fertilisers in the paddy fields and proper care of their framings etc..

Ans to Q No 3: Unemployment means the lack of employment opportunities among the people for living in a decent standard. It leads to poverty and hunger in the nation following which people fail to ensure the

security of life. Unemployment may be caused by population explosion, economic recession and inflation, mismatch in education system and degrees of inflation, bad affect of westernisation, tendency for earning easy money etc.

Underemployment refers to a situation where the employees have to do the work which is not suitable for them against their required degree and qualification. Today we have seen that many peoples in our country have to join certain jobs where the employees have more education, more skills, and more experiences and over qualifications beyond the requirements of the job. Underemployment is commonly defined as under-utilisation of the labour time of the workers. Although, some persons are apparently employed, they do not have work throughout the year due to seasonality of work or there are not enough work for them. Thus, the problems like unemployment and underemployment are happening in our society which is mainly due to over population, lack of employment opportunities, lack of manpower planning in terms of demand and supply of the degrees etc.

Ans to Q No 4: In India, if a person is available for work and do not have a job– irrespective of whether sought work or not, he or she is considered unemployed. The NSSO data over the years reveal the rising trend of unemployment rate in the states of northeast India. However, the proportion of the overall unemployed is still smaller compared to the significant proportion of people living under poverty in the northeast region particularly in the populous states of Assam and Tripura (about 40 percent in rural Assam and about 20 percent in rural Tripura live under poverty; 2009-10 NSSO data). In Assam, the unemployment rate among rural male is just 3.6 percent and urban male is 4.4 percent; in Tripura the figures are 6.3 and 9.3 percent respectively. This indicates that the numbers of working poor outnumbers the unemployed. This is true for the country as a whole. The reason for this is that a person cannot remain unemployed for long, unless she/he gets some supports to sustain. This forces the people to engage themselves in any form of work.

But, the number of unemployed youths is still higher in our state. The reason youth unemployment rate shows a high figure than the general rate of unemployment is that a youth till a certain age can avail some support from her/his family. This may not be possible after a certain age, compelling him/her to enter any form of job. Besides, people want to move to certain upper end jobs e.g. high paid jobs in IT and corporate sectors. Even, the large section of dropouts becomes the supplier of labour primarily to petty lower end job markets. This is the reason of overcrowding of people in certain job sectors such as vending, sales, construction works and wages and earning in these sectors are low to ensure decent living. All these factors push the youth to look for job outside the region. The nature and extent of crisis in some pockets (infected by flood, erosion, conflicts) determine the degree mobility of the labour force, some areas (for example, Dhemaji and Marigaon in Assam) show huge outflow of workforce.

Ans to Q No 5: Labour mobility means shifting the work from one place to another, change the work for getting the better alternative option, promotion of the work, looking for better places etc. Labour mobility leads the migration of people from rural to urban and mini city places. Thus, labour mobility is a current issue that can change the entire nature of work in the world. In fact, underemployment and unemployment are the reasons that force the people to look for opportunities in different places.

Ans to Q No 6: Brain drain means the immigrations of highly professional, technical manpower as well as human resources and skilled persons from developing to developed countries. The outflow of the skilled personnels from the developing countries is mainly directed to the USA, UK, Canada, Australia and other advanced countries. Here, the thing is that the brain drain is qualitatively different from the ordinary migration like migrations from rural to urban for searching the work just meet the daily needs etc . The fact of brain drain is related to the intellectual matter.

Ans to Q No 7: Brain drain is happening in our country because of lucrative

jobs and better employment opportunity in other places. This is however not possible for the reasons that in the era of globalisation, wide dissemination and access to the information has helped people to explore, compare and move out for better opportunities and living. Overall, we may see that brain drain or emigration is generally driven by both push (lack of appropriate opportunity in own country) and pull factors (expectation and existence of a better work environment and life in countries of destination). The main push factors from the home front include dissatisfactions arising out of unattractive remuneration packages; while pull factors include expectation of better living standards. These factors have common global pattern and India is no exception. Khadria (2006) had shown that the percentage of Indian immigrant among all global immigrated admitted in US had increased from about 5 percent in 1999 to about 25 percent in 2005. This may reveal dominance of India in world's knowledge market. Data for the 2012 show that among all immigrants to US, the share from India accounted for about 6.5 percent.



8.12 MODEL QUESTIONS

A) Short Questions (Answer each question in about 150 words)

Q 1: What do you mean by Labour mobility?

Q 2: What do you mean by brain drain?

Q 3: What do you mean by organised sector?

Q 4: What do you mean by unorganised sector?

Q 5: What is unemployment?

Q 6: What is underemployment?

B) Long Questions (Answer each question in about 300-500 words)

Q 1: What are differences between organised and unorganised sector? What types of problems people are facing in the unorganised sector?

Q 2: Explore the constraints the farmers/cultivators face in your locality to sustain livelihood. Do the farmers perceive the agriculture sector as

remunerative?

Q 3: Explain what types of constraints farmers are facing in the labour market today for getting livelihood.

Q 4: Identify some of the causes of brain drain from India to other developed countries in the world.

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UNIT 9 : EDUCATION AND BRAIN DRAIN

UNIT STRUCTURE

9.1 Learning Objectives

9.2 Introduction

9.3 Brain Drain and Reverse Transfer of Technology

9.4 Causes of Brain Drain

9.5 Effect of Brain Drain

- 9.5.1 Effect of Brain Drain on Developing Countries
- 9.5.2 Effect of Brain Drain on Developed Countries

9.6 Brain Drain from IITs and IIMs

9.7 Problems of Brain Drain in India

9.8 Let Us Sum Up

9.9 Further Reading

9.10 Answers to Check Your Progress

9.11 Model Questions

9.1 LEARNING OBJECTIVES

After going through this unit, you will able to-

- define the meaning of brain drain
- explain the causes of brain drain
- assess the impacts of brain drain in developing country like India
- elaborate the trend and magnitude of brain drain from IITs and IIMs in India.

9.2 INTRODUCTION

The international migration or outflow of skilled and trained personnel from developing countries to developed countries is called brain drain. These developing countries are generally the poor nations especially from the countries of Asia and the destination countries are the rich nations especially countries of Europe and North America (USA and Canada). Thus, the phenomenon of brain drain is a one-sided transfer of human capital from

the poor to the rich countries particularly in search of higher incomes and opportunities. These personnel are highly skilled and trained mostly in the fields of scientific and technical subjects and sometimes they also belong to humanities and managerial subjects. Similar definition of brain drain is also propounded by UNESCO. According to UNESCO, 'brain drain could be defined as an abnormal form of scientific exchange between countries, characterised by a one-way flow in favor of the most highly developed countries'.

9.3 BRAIN DRAIN AND REVERSE TRANSFER OF TECHNOLOGY

Brain drain is a form of 'reverse' transfer of technology because it is a one-way transfer of productive resources embodying technology in human skills from the developing to receiving developed countries, thus limiting the developing countries' capacity for development. It is a real transfer of productive resources from poor to rich countries. In as much as technology is a combination of knowledge and capital equipment, the migration of people with skills is clearly a transfer of technology. Since such transfer takes place from the developing to the developed countries or from the poor to the rich, the phenomenon has been termed a 'reverse' transfer of technology. Further, in so far as knowledge and skills are acquired as the combined result of investment in education, training and allied activities and nurture and maintenance of the persons concerned, they could be considered a form of productive resource embodied in human beings, or human capital.

9.4 CAUSES OF BRAIN DRAIN

There are many causes of brain drain. Some of the important causes of brain drain are as discussed below:

- **Higher salary in destination country :** Higher salary in the destination country is the most important reason of brain drain especially in the developing countries like India. Highly educated and skilled persons from India migrate to developed countries like USA, UK and other

European countries only in search of highest paid job.

- **Availability of Research and Development (R & D) :** The availability of numerous opportunities in the field of research and development (R&D) is another important factor of brain drain after high salary. Many academicians and scientists opt for job in American and European countries only for research and development.
- **Higher standard of living :** The standard of living in most of developed countries is very high. Hence, the attraction towards high standard of living especially persons from poor countries fuels the process of brain drain.
- **Better working environment :** The working conditions and environment is very hygienic and cozy in terms facilities available in the offices in the developed countries of America and Europe. Thus, migration to those countries for job is very widespread and obvious.
- **Lack of employment opportunities :** Lack of employment opportunities in the underdeveloped countries is another reason of brain drain from underdeveloped countries (source countries) to the developed countries (destination countries). According to many economists, high rate of unemployment is the most important reason of brain drain in the underdeveloped countries which compelled the highly educated or skilled persons to search for job in the developed countries.

9.5 IMPACTS OF BRAIN DRAIN

There are many effects of brain drain. But all affects are not negative althose the impact of Brain drain vary from the developing to the developed countries. The following facts mentioned ought to indicate that brain drain is actually influencing the availability of highly qualified personnel in the developing countries. These highly developed personnel are, however, a vital development potential for the underdeveloped countries. In the 1970 report of the Secretary-General of the United Nations on brain drain, it is underlined that many of the factors motivating people to migrate from the developing countries to the developed countries are based on the problem

of underdevelopment. On the other hand, if most of the educated people do migrate then the development of the underdeveloped countries is not possible. Besides, this in turn, causes more migration from the underdeveloped regions to the developed which again affect the potentiality to develop.Some of the important effects of brain drain are discussed below.

9.5.1 Effect of Brain Drain on Developing Countries

(i) The developing countries had to cover, among others, high costs fort the raining of highly qualified personnel, notably for their higher education. In case of brain drain, those expenses are lost for the societies of the developing countries.

(ii) From many developing countries, highly qualified persons are migrating who were fully employed there. Often this results in a lack of personnel in these countries. Often the countries concerned are forced to call on the services of foreign experts, which cause enormous costs.

(iii) Brain drain also worsens the regional distribution of highly qualified personnel in the developing countries according to the social development requirements. As long as a medical doctor has at any time the possibility to migrate to a developed country he is not bound to practice in rural areas where he is urgently needed.

9.5.2 Effect of Brain Drain on Ceveloped Countries

(i) The economies of the countries with developed market economy are largely profiting from the immigration of highly qualified personnel from developing countries. In the field of public health, it was estimated that the US had to build and operate 15 to 20 medical schools in order to train the number of nationals commensurate to the number of physicians and nurses emigrated from other countries.

(ii) Through brain drain the receiving countries are able to save

training costs for highly qualified personnel of their own.The training costs saved are often many times more than the costs the developing countries had to spend on the training of these personnel.

(iii) Besides financial profits, brain drain has also positive effects on the institution of the labour market in the receiving countries.The net effect of this is that the development of science and technology has been accelerated in the developed countries and has been slowed down in the drained countries. As those examples prove brain drain from developing countries to developed capitalist countries produces unequal effects for the societies involved. Lord Bowden put it that in the 1960s 'brain drain may well mean that fields in India will remain uncultivated in order that America may put a man on the moon'.



CHECK YOUR PROGRESS

Q 1: What is brain drain?

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Q 2: What are the causes of brain drain?

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Q 3: What are the effects of brain drain on the developing countries?

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Q 4: What are the effects of brain drain on developed countries?

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9.6 BRAIN DRAIN FROM IITs AND IIMs

IITs and IIMs are the premiere institutions of higher education in India. These educational institutions are renowned for producing huge number of highly skilled and trained graduates and postgraduates having

competence of international level. But the Government of India is unable to employ most of these graduates (human capital) at home because of many reasons such as the prevailing low salary and lesser opportunitiesof research and development in the country. The magnitude of brain drain from India is the second largest after China. According to the UNESCO's Report-Global Education Digest 2009, every year more than 1 lakh students going abroad for higher education and in search of jobs in the developed countries are from India.

Initially in 1960s, medical doctors as part of brain drain were the largest emigrants from India to the USA and other developed countries. But, after the 1960s, the nature of brain drain had shifted from medical sciences to engineering and basic sciences. Nowadays, management graduates and post graduates have also started migrating for better opportunities in the developed countries. However, almost one-third of the total IIT engineers still migrate to the developed countries and they are mostly from the backgrounds of Electrical Engineering, Chemical Engineering, Aeronautical Engineering, Civil Engineering, Mechanical Engineering and Metallurgical Engineering. Moreover, the students of MBA from IIMs is another large source of brain drain in India.

9.7 PROBLEMS OF BRAIN DRAIN IN INDIA

Brain drain is a direct loss of trained experts in many fields to the underdeveloped and poor countries. On the other hand, it is a net gain to the advanced countries. According to a UNO report, every year thousands of experts are migrating from the backward countries to the advanced countries like USA, UK, Canada, Germany etc. The underdeveloped countries are spending millions of rupees on the training of these experts. But the advanced countries are utilising their services without spending any money on their training. Every year, thousands of highly talented doctors, engineers, scientists and other intellectuals leave India and migrate to foreign countries. They generally go to the USA, UK, Canada, West Germany, etc. for monetary gains and facilities for higher research. The USA is the biggest gainer from the loss of India due to brain drain. In 2010, India with an

estimated stock of 11.4 million emigrants was the second emigration country in the world, behind Mexico (11.9 million). In absolute terms, India is among the countries which lose most highly-skilled workers to foreign markets. In 2000, India was, for example, the first sending country of physicians with 57,383 or 9.9% of the total number of physicians trained in the country going abroad. India and the Philippines supply the most foreign-trained doctors and nurses to the OECD, notably to the English-speaking countries. The emigration of health professionals has negative effects on India, especially in the rural areas where the density of doctors is lower than in the urban areas. Despite the increasing internal demand, India still has a very low density of doctors (0.6 per thousand people in 2004) compared with 3 in the US and 2 in Canada. Compared with other large countries, India records higher expatriation rate of doctors that is 8%; while the expatriation rate of say Chinese doctors is about 1%. This does not prevent, of course, India from having a large and powerful modern health sector; as in other countries, the migration of health professionals may coexist with a dynamic urban sector and the inequitable social distribution of medical resources at the country level.

Most of the students who go abroad for higher studies do not return to India. After seeing, the affluent life of the foreign countries, they lose all interest in their own country. Many Indians are teaching at various US Universities and other Institutions of higher learning. Some of them are placed in quite lucrative and high posts. There is another attraction of leading a higher standard of living in foreign countries, because the technical experts and intellectuals are given special facilities there. In foreign countries, there is another advantage that over while learning, a person can also earn his own living. The stipends in foreign countries are sufficient enough. A frugal Indian Student living there can also save something to send home. There is no doubt that India is having vast natural and man power resources. If both these resources are put to the maximum utilisation, astounding advancement can be achieved in all fields. These technical and other talented reasons that we lose every year, can greatly help in the development of our natural resources and the government must take speedy steps to attract back home

these talented sons of India who are living abroad. These experts can surely help in making India a great power in the world. In this connection, even the people should also come forward and cooperate with the Government in solving this problem. Parents of the students should not encourage them to go abroad and settle there even if they are paid high salaries. The doctors, engineers and scientists owe a duty to their motherland. Our nation is spending huge amounts of money on their training. These people should not betray their own nation by serving foreign nations. Nowadays, thousands of young Indian scientists and technicians are devoted to the cause of rebuilding our nation. The country has already achieved the nuclear status as well as become a space power. There are enough opportunities for all the Indian scientists and engineers settled abroad, if they come back to India. They should play an important role in future progress of our country and share the honour of participating in this sacred task.



9.8 LETS US SUM UP

- The international migration (outflow) of skilled and trained personnel from the developing countries to the developed countries is called brain drain.
- These developing countries are generally the poor nations especially from the countries of Asia and the destination countries are the rich nations especially countries of Europe and North America (USA and Canada).
- Brain drain is a form of 'reverse' transfer of technology because it is a one-way transfer of productive resources embodying technology in human skills from the developing to the receiving developed countries, thus limiting the developing countries' capacity for development.
- There are many causes of brain drain. Some of the important causes of brain drain are-Higher salary in the destination country, the availability of numerous opportunities in the field of research and development (R&D), high standard of living and better working

environment and soon.

- There are many effects of brain drain. But all effect are not negative and the effects have different aspects both under the developing and developed countries.
- In the 1970 report of the Secretary-General of the United Nations on brain drain, it is underlined that many of the factors motivating people to migrate from the developing to developed countries are based on the problem of underdevelopment.
- However, reasons of brain drain in the developing countries are slightly different from developed countries.
- IITs and IIMs are the premiere institutions of higher education in India and are renowned for producing huge number of highly skilled and trained graduates having competence of international level.
- But the Government of India is unable to keep these graduates (human capital) at home because of many reasons particularly the prevailing low salary and lesser opportunities of research and development in the country.
- India is among the countries which lose the most highly-skilled workers to foreign markets. In 2000, India was the first sending country of physicians with 57,383 or 9.9% of the total number of physicians trained in the country going abroad.
- Compared with other large origin countries, India records higher expatriation rate of doctors that is 8%; while the expatriation rate of, say, Chinese doctors is about 1%.
- Nowadays, thousands of young Indian scientists and technicians are devoted to the cause of rebuilding our nation. The country has already achieved the nuclear status as well as become a space power. There are enough opportunities for all the Indian scientists and engineers settled abroad, if they come back to India. They should play an important role in future progress of our country and share the honor of participating in this sacred task.



9.9 FURTHER READING

1) Adams, W. (ed.) (1968). *The Brain Drain.* Macmillan, New York

2) Bhagwati, J.N. (ed.) (1976). *The Brain Drain and Taxation.* Vols. 1 and 2, North Holland, New York

3) Psacharopoulos, George. (ed.) (1987). *Economics of Education: Research and Studies.* Pergamon Press, Oxford

4) Varghese, N.V. & Tilak, J.B.G. (1991). *The Financing of Education in India.* International Institute for Educational Planning, Paris



9.10 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q No 1: The international migration or outflow of skilled and trained personnel from the developing to the developed countries is called brain drain. These developing countries are generally the poor nations especially from the countries of Asia and the destination countries are the rich nations especially the countries of Europe and North America (USA and Canada). Thus, the phenomenon of brain drain is a one-sided transfer of human capital from the poor to the rich countries particularly in search of higher incomes and opportunities. These personnel are highly skilled and trained mostly in the fields of scientific and technical subjects and sometimes they also belong to humanities and managerial subjects.

Ans to Q No 2: There are many causes of brain drain. Some of the important causes of brain drain are higher salary in the destination country, the availability of numerous opportunities in the field of research and development (R & D), high standard of living and better working environment.

Ans to Q No 3: The developing countries had to cover, among others, high

costs for training of highly qualified personnel, notably for their higher education. In case of brain drain, those expenses are lost for the societies of the developing countries.

From many developing countries, highly qualified persons are migrating. This often results in a lack of personnel in these countries. Often the countries concerned are forced to call on the services of foreign experts, which cause enormous costs.

Brain drain also worsens the regional distribution of highly qualified personnel in the developing countries according to the social development requirements. As long as a medical doctor has at any time the possibility to migrate to a developed country, he is not bound to practise in the rural areas where he is urgently needed.

Ans to Q No 4: The economies of the countries with developed market economy are largely profiting from the immigration of highly qualified personnel from the developing countries. In the field of public health, it was estimated that the US had to build and operate 15 to 20 medical schools in order to train the number of nationals commensurate to the number of physicians and nurses emigrated from other countries.

Through brain drain, the receiving countries are able to save training costs for highly qualified personnel of their own. The training costs saved are often many times more than the costs the developing countries had to spend on the training of these personnel.

Besides financial profits, brain drain also has positive effects on the institution of the labour market in the receiving countries. The net effect of this is that the development of science and technology has been accelerated in the developed countries and has been slowed down in the drained countries. As these examples prove, brain drain from the developing to developed capitalist countries produces unequal effects for the societies involved. Lord Bowden put it that in the 1960s 'brain drain may well mean that fields in India will remain uncultivated in order that America may put a man on the moon'.



9.11 MODEL QUESTIONS

Q 1: What is brain drain?

Q 2: What is 'reverse' transfer of technology?

Q 3: Explain the important causes of brain drain.

Q 4: What are the negative impacts of brain drain on developing countries?

Q 5: What are the effects of brain drain on developed countries?

Q 6: Explain brain drain as 'reverse' transfer of technology.

Q 7: Explain the negative and positive effects of brain drain on developing countries.

Q 8: Explain the impact of brain drain on the developing countries.

Q 9: Explain the impact of brain drain on the developed countries.

Q 10: Write a note on brain drains from IITs and IIMs.

Q 11: Illustrate the problems of brain drain in India.

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UNIT 10: ACCESS AND EQUITY IN EDUCATION

UNIT STRUCTURE

10.1 Learning Objectives

10.2 Introduction

10.3. Equity, Access and Reservation

- 10.3.1 Meaning of Equity
- 10.3.2 Meaning of Access
- 10.3.3 Constitutional Provisions to Ensure Equity, Access and Reservation

10.4 Education- A Fundamental Right

10.5. Gender Inequality in Education

10.6. North Eastern Region: Access

10.7 Improving Access in Education

10.8 Let Us Sum Up

10.9 Further Reading

10.10 Answers to Check Your Progress

10.11 Model Questions

10.1 LEARNING OBJECTIVES

After going through this unit, you will able to-

- identify education to be an integral part of economic development,
- discuss the importance of squinty and occusion cheracation,
- explain the importance of universalisation of education,
- discuss the meaning, concept and importance of expansion of education.

10.2 INTRODUCTION

The formulation of an education policy had started assuming more and more importance when countries began to look at its population as human resource. Each country wants its population to contribute to its economic development. To reach this goal, the educational system of a

country is the only highway.

Every country is inhabited by people belonging to the different levels of economic development. People are divided in accordance with their levels of economic development. For this stratification of society all people do not enjoy equal educational opportunities and all educational facilities are not equally available to them.

India has a huge population which cannot afford even to go to the primary level of education; some of them, though cross the primary level, end up their education at the secondary level. A very small section of the society completes the higher secondary level while a negligibly small section goes to the level of higher education.

This situation has become a challenge to the leadership of Indian education. The desire to encounter this challenge had started taking very strong roots when the concept of investment for human resource development rapidly had invaded the minds of the education policy makers. What is spent for education can be called human investment. It is seen that education prepares the learners for higher earnings. These earnings are considered a return on what was spent for education. It become clear in the minds of the education policy makers that an elitist education policy would benefit only a few, and such a policy cannot bring an accelerated economic development for the people of India as a whole.

The education policy makers of India have deeply realised that India must have an education policy which should be capable of bringing education to the masses for the all-round development (social, cultural, economic) of the people of the country. They all agree that education provides the base for a 'person's own well-being in future, his immediate community and the larger society'. Education has a great role in setting up a healthy and wealthy democracy in India.

10.3 EQUITY, ACCESS AND RESERVATION

The Indian Constitution has set the goals of the nation in its Preamble by declaring its mission "to secure to all its citizens justice—social, economic and political; liberty of thought, expression, belief, faith and worship; equality

of status and opportunity." Different provisions of the constitution have given expression to the goals of justice, liberty, equality and fraternity for the elimination of social inequalities, economic disparities and political privileges. One and all have agreed that in order to realise these goals, India must have an education policy which is based on the principles of equity, access and reservation.

10.3.1 Meaning of Equity

Equity denotes the spirit and habit of fairness and justness. If an education policy is to reach out to the masses, it has to be guided by a spirit and habit of justness of those who are engaged in the process of formulation of education policy. The base of education should be equity and the education policy maker has to be endowed with a spirit of fairness and justness. When the education policy of a state could make every member of the society its beneficiary, we can say that such an education system has equity as its base. The principle of equity in education underlines the need of expanding education. When the objective of extending education is fulfilled, the equality of opportunity will emerge in such a society as being more than a mere phrase. Fairness and justness on the part of education policy makers is the sine qua non of equity in education.

10.3.2 Meaning of Access

Equity in education, indeed, involves access to education. Access to education means the freedom for all sections of society to go to school irrespective of one's caste, creed, religion and economic status. The increase in access to education will lead to the expansion of education. This cannot happen without providing equality of opportunity which can be ensured by equity only. The society as a whole will get the benefit of expansion of education if the educational system of that society works out successfully with the objectives of equity and access. Equity in education has to ensure

access to the right education and the right educational system to all.

10.3.3 Constitutional Provisions to Ensure Equity, Access and Reservation

For equity and access, Article 46 of the Indian Constitution requires the 'State' to promote, with special care, the educational interest of the weaker sections of the people which include, in particular, the scheduled castes, the scheduled tribes, women, minorities and other economically backward sections of our society. Further, Article 45 under the Directive Principles of State Policy in the constitution wants the 'state' to endeavour to provide early childhood care and education for all children until they complete the age of six years.

The Article 16 of the Indian Constitution is devoted to special reservation regarding educational facilities for scheduled tribes, scheduled castes and all other backward classes of citizens including the socially and educationally backward classes. These constitutional provisions have fully established that the development of human resources is the main function of education. Education has to be the mainstay of all national endeavours. So, the constitutional provisions incorporated in Articles 45, 46 and 16 are devoted to equity, access and reservation.



LET US KNOW

Besides the above, there are some other Constitutional provisions which are implemented for Gender Equality in India.

Article 15 (1) states: "the state shall not discriminate against any citizen on grounds only of religion, race, caste, sex, place of birth or any of them."

Article 15 (3) states: "nothing in this article shall prevent the state

from making any special provision for women and children."

Article 16 (1) states: "there shall be equality of opportunity for all citizens in matters relating to employment or appointment of any office under the state."

Article 39 (a) states: "the citizens, men and women equally have the right to an adequate means of livelihood."

Therefore, in the Indian Constitution, it is assured that no one is discriminated on the basis of sex.



CHECK YOUR PROGRESS

Q 1: Do all people enjoy equal educational opportunities? Explain.

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Q 2: What is human investment?

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Q 3: Does education lead to higher earning?

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Q 4: Explain the meaning of equity.

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Q 5: Give the meaning of access.

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Q 6: Are equity and access complementary to one another?

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Q 7: Mention the Articles in the Indian Constitution devoted to equity, access and reservation.

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10.4 EDUCATION - A FUNDAMENTAL RIGHT

The Constitution of India (the 86th Amendment) Act 2002 has added a new Article 21A after articles 21. Article 21A provides that "the State shall provide free and compulsory education to all children of the age of 6 to 14 years in such manner as the state may, by law, determine." Increase in the rate of literacy is the result of an access to education. The constitutional provision like the Article 21 A which has made education a fundamental right, is found to increase the rate of literacy. We live in a political democracy and a market economy. If India's political democracy and market economy are to remain always healthy and sound, India has to attain 100 per cent literacy which is, in fact, an output of successful elementary education. The Article 21A would certainly ensure the universalisation of elementary education in India.

But still there is a rampant gender discrimination, regional discrimination, place discrimination in terms of education. If we look at the literacy rate among the male and female in India, it seems that the literacy rate among women has increased far more than among men. Even though the literacy rate among women is still quite a bit lower than among men, it increased from 75.85% to 82.14%, with a rise of 6.29%. In the same frame, the literacy rate among women increased from 54.16% to 65.46%, with a rise of 11.3%. However, till 2011, women were still significantly less likely to be literate than men. In the Census of 2011, the literacy rate of Men is 82.14% and of women it is 65.46% with the gap of 16.68%.

LITERACY RATE IN INDIA

Year	Male	Female
1901	9.8	0.7
1911	10.6	1.1
1921	12.2	1.8
1931	15.6	2.9
1941	24.9	7.3
1951	27.16	12.87
1961	40.40	15.35

1971	45.96	21.97
1981	56.38	29.76
1991	64.13	39.29
2001	75.85	54.16
2011	82.14	65.46

Source: Census of India (2011)

There are rampant gender differences in all stages of education although we have various Laws and the Constitutional provisions for ensuring the equality of educational opportunity to all. India as a developing country ranks 129 out of 146 countries on the Gender Inequality Index (GII), better only than Afghanistan. This posed a challenge to the country for taking immediate action for bringing the equal opportunities of education in order to enable the economic mobility in the country. Thus, gender equality becomes the prime concern in a democratic country.

10.5 GENDER INEQUALITY IN EDUCATION

Primary level

For making primary education effective, the Government has taken so many initiatives for providing education to all, irrespective of gender, caste and class, by introducing programmes and schemes such as Sarva Shiksha Abhiyan, National Programme for Education of Girls at Elementary Level, National Programme of Mid Day Meal in School, Kasturba Gandhi Balika Vidyalaya, Thrust for Female Literacy (Saakshar Bharat) etc. Besides having these programmes in the field of elementary education, still a high range of gender gap and high rate of drop outs prevail in this stage. Still, it has been observed that there are many girls in rural areas who drop out of school compared to boys, because school is too far, or because the quality of the teacher is so poor in the schools that it is impossible to pass on the part of the student without private tuition. Besides these, there are rampant gender discrimination in terms of enrolment and dropout rate at the elementary level. The following figure shows the prevailing gender discrimination in our elementary education system.

Enrolment of All Categories of Students in Class I –X in 2010-11

Boys	Girls	Total
120729213	108423210	229152423

This figure shows that boys occupy 52.68% from the total enrolment in class I-X, whereas girls have 47.31% of enrolment in the year of 2010-11. But, in latter on the trend of enrolment of girls has been increased. The following figure shows the Ratio of Girls' to Boys' Enrolment which is also known as Gender Parity Index in enrolment as follows:

Ratio of Girls' to Boys' Enrolment (Gender Parity Index) in Lower primary and Upper Primary 2011-12 to 2013-14

Class I-V			Class VI-VIII		
2011-12	2012-13	2013-14	2011-12	2012-13	2013-14
0.94	0.94	0.93	0.95	0.95	0.95

This shows that still the ratio of girls to boys in terms of enrolment at primary and elementary level has to ensure equal share. In elementary level the ratio is slightly higher than the primary level in terms of Gender Parity Index in India.

Again in the rate of drop out, a huge number of students had left their schools before finishing the target period of classes. 28.86% and 42.39% students are drop outs from the classes of I-V and I-VIII in the year of 2009-10. The following table points out the gender differences in terms of drop out.

Drop out of All Categories of Students in the Classes of I-V and I-VIII

	Classes I-V		Classes I-VIII			
Year	Boys	Girls	Total	Boys	Girls	Total
2005-06	28.71	21.77	25.67	48.67	48.98	48.8
2006-07	24.57	26.75	25.6	46.44	45.22	45.9
2007-08	25.7	24.45	25.9	43.72	41.34	42.68
2008-09	26.68	22.9	24.93	44.89	38.86	42.25
2009-10	30.25	27.25	28.86	40.59	44.39	42.39

Source: MHRD, Govt.of India

From the table, it has been seen that the rate of the drop outs of the

girls are gradually decreasing compared to the boys in elementary level. In 2009-10, the drop out rate of boys is 30.25%, whereas the drop out rate of girls is nearly 28% in the classes of I-V. Yet, the drop out rate of girls has increased up to 44.39% compared to boys (40.59%) in the classes of I-VIII. It seems that although a huge number of drop outs are found in the elementary level in both the sexes, many attempts are made for increasing the retention rate in schools.

But, latter on the retention rate has increased. The following figure shows the percentage of drop outs at the primary and upper primary levels.

Percentage of drop outs at the Lower Primary and Upper Primary levels in India during 2012-13.

Lower Primary Level (I-V)			Upper Primary Level (VI-VIII)		
Boys	Girls	All	Boys	Girls	All
4.68	4.66	4.67	2.30	4.01	3.13

From the table it has been seen that the rate of drop out has decreased compared to the previous years in both lower primary and upper primary level. Still there is a differentiation in both boys and girls in the drop out rates.

Apart from these discriminations in the rate of enrolment and drop outs, there is an acute shortage of competent and qualified women teachers particularly in the schools of rural areas. Inadequate basic infrastructural components like school building, child friendly class room, blackboard, teaching learning materials, toilet facilities especially for girls are responsible for retention of girl child in schools. These are also the factors behind the failure to achieve the goal of universalisation of elementary education in India.

Secondary level:

Though school enrolment ratio among girls is rising in both urban and rural areas, high rate of drop outs still continue to be a major problem among the girls in secondary level. This rate is higher at 10 Plus stage. Early marriage, poverty, conservative outlook of the parents, unwillingness to get educated under male teachers, lack of proper security measures for girls in schools, involvement of girls in the household work—are some of

the major causes for the big gender gap mostly in secondary schools. The following table shows the enrolment ratio and drop outs of girls compared to boys at the secondary stage of education.

In the lower secondary and higher secondary levels, the number of enrolment and drop outs are comparatively poor in case of girls. For instance, in the year 2007-08, the percentage of enrolment of boys is 56.39% whereas the enrolment of girls is 43.60% in the total enrolment in class IX to X. Again, in 2013, it has been seen that the percentage of enrolment of boys is 48.12% and girls 51.87% in the total enrolment in class VII-X level. In fact, the Gross Enrolment Ratio in Lower Secondary level (VII-X) and Higher Secondary level (X-XII) is as follows:

GER at Secondary level in the year 2013:

Lower Secondary (VII-X)			**Higher Secondary (X-XII)**		
Male	Female	Total	Male	Female	Total
86%	93%	90%	56%	54%	55%

Besides the numbers of enrolment, a high rate of drop outs is found in the classes from I to X. The following table shows the figure of the drop outs from classes from I-X.

Drop outs:

	Classes I-X		
Year	Boys	Girls	Total
2005-06	60.1	63.56	61.62
2006-07	58.61	61.5	59.88
2007-08	56.55	57.33	56.71
2008-09	55.82	55.95	55.88
2009-10	53.38	51.97	52.76

In the context of drop outs in the classes from I to X, there are gradual decrease of girls drop outs compared to boys from 2005-06 to 2009-10. Even in the year of 2009-10, there is less numbers of girl drop outs compared to boys. It means from the classes I to X, the girl drop out rate is gradually decreasing due to the efforts made by the Government in India. In 2014, it has been seen that in Secondary school level (IX-XII),

14.61 percent girls leave education in midway.

Higher Education:

In higher education, making education accessible to all is still a dream. There are rampant gender differences in terms of enrolment, gender bias in various stream of education etc. Gross Enrolment Ratio is still a big challenge for India. The current enrolment ratio in India is less than the average of lower middle income countries in the world. Although India has huge potential to improve demographically, it has less than 19% GER which is comparatively poor against the increasing population. While India has set the target to meet and 30% GER by 2020, the average high income countries have a ratio above 60 percent. For instance, the corresponding ratio is above 80% in the USA, above 70% in Sweden, Norway, New Zealand, above 60% in the UK and Australia, above 40% in several European countries, and more than 20% in many developed and developing countries such as Mexico, Malaysia, Thailand, Chile and Brazil. There is even an inter-state variation in the development of higher education in terms of enrolment ratio. Some Indian States have expanded their higher education system fast, but many are still lagging behind. For example, the enrolment ratio is as high as 29% in Chandigarh, but less than 5% percent in Jammu and Kashmir (4.95%). Even within the North eastern regions there is a wide range of variation in terms of gross enrolment ratio at higher stage.

Gross Enrolment Ratio (18-23 Years) in Higher Education in North East (as on 2011)

North East States	Male	Female	Total
Assam	13.3	13.4	13.4
Arunachal Pradesh	33.6	19.5	26.9
Manipur	38.5	33.3	35.9
Meghalaya	15.3	19.8	17.5
Mizoram	22	21.1	21.6
Nagaland	25.8	16.9	21.5
Sikkim	26	22.2	24.2
Tripura	16	11	13.6
India	20.9	16.5	18.8

Source: MHRD, Govt. of India, 2011-12

Thus, it has been seen that by 2011-12, India was able to achieve about 18.8 percent Gross Enrolment Ratio. In the North East, Assam has the lowest GER i.e. 13.4 percent compared to the other states followed by Tripura (13.6 percent). Besides these, from the table it has been seen that there are less numbers of girls GER compared to boys in India and other states of North East except Meghalaya and Assam. In India the Female GER is 16.5 percent which is comparatively less than the Male (20.9 percent).



CHECK YOUR PROGRESS

Q 8: Name the Article in the Indian Constitution which has made education a Fundamental Right.

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Q 9: Write down the Article 21 A.

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Q 10: Which Article of the Indian Constitution would ensure universalisation of elementary education?

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Q 11: What are the basic factors behind the drop outs of girls from school at the elementary and secondary levels of education?

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10.6 NORTH EASTERN REGION: ACCESS

Access to education opens up the livelihood choices of the people by increasing their capabilities. Education provides the “underpinning” to any vision of North Eastern Region (NER) which comprises Arunachal Pradesh, Assam, Manipur, Meghalaya Mizoram, Nagaland, Sikkim and Tripura. These eight states account for around 3.79 per cent of India’s total population (2001 census). Of India’s 635 tribal communities, the region alone is home to over 200 tribal communities.

The rate of literacy of the population in the NER is 68.5 per cent which is higher than the country's average of 64.8 per cent. The region's female literary rate of 53.8 per cent. The female literacy rate of Mizoram is 86.1 per cent. Another trend in the population growth in many of the NER states is that a large proportion of the population is less than 14 years. For such a population of high literacy rates the equity, access and reservation policy will be the critical input for equipping the young people of NER to expand their livelihood choices. The Sarva Shiksha Abhiyan (SSA - Education for All), introduced in phases among the North Eastern states since 2001-02, has made some progress in increasing enrolment and retention in elementary schools.

However, the access scenario in the NER as a whole is not encouraging. The North Eastern Region vision 2020 has observed that "despite the expansion of educational infrastructure and impressive literacy rates and pupil - teacher ratios in the region, the standard of education in NER is generally low and the skills and knowledge base of schools and college graduates has not equipped them to complete at the national level for further studies or employment, or engage effectively in entrepreneurial activity. The vision for the region thus calls for a vast improvement in the quality of education, infrastructure and facilities at all levels, so that children and youth have access the good quality education that will place them on a per with the best in the rest of the country."

Access to education in certain hill areas of the NER is a big problem. In Arunachal Pradesh, 48 percent of rural habitations do not have a primary school within one kilo metre and only 31.2 per cent have upper primary school facilities within three kilometres. Further, the areas under the Sixth schedule of the Indian Constitution need special attention of the government. In these areas, the Autonomous District Councils establish, construct and manage primary schools. High dropouts and low enrolment in these areas do not speak well of access to education.

10.7 IMPROVING ACCESS IN EDUCATION

The NER vision 2020 has given some measures to improve access in education. Innovative schemes can be set up in areas where access remains a problem. One such scheme is the establishment of non-formal education centres with active parent and community participation. The establishment of "well-monitored" anganwadis and non-formal education centres, especially in interior and inaccessible villages, will enable children to begin school at the appropriate age.

"Alternative ways of bringing schooling to children of peripatetic workers are being explored in the region. One successful initiative is the Mobile Teacher Programme initiated by SSA in Mizoram *to reach children* of *jhum* farmers…Here, the teacher brings schooling to the children. He cycles to the settlements, carrying his blackboard, teaching supplies and textbooks, and teaches local children in their own surroundings." In order to increase access to education and retain children in school, the vision 2020 suggested important measures like—the effective functioning of the mid day meal (MDM) scheme, increased community involvement through Self Help Group (SHGs) formed by mothers of the school going children in the locality, village education Committee (VECs) and other local bodies.

Besides, in India, there are misutilisation of autonomy in the educational institutions, asymmetrical allocations of public expenditure in various sectors of education, educational disparities, gender disparities, inter-state variation and regional disparity in terms of Gross Enrolment Ratio and implementation of the educational policies and programmes. Therefore, adequate number of needful educational institutions should be set up in each state for accelerating knowledge and skills of the people living there and thus make them empowered in every aspects of life. Thus, providing access, equity and quality education to the people in a society forms the basic objectives that have to be kept in mind by an institution while providing education to the learners. Thus, the main goals of education are to disseminate knowledge, to use information networks and mass media technologies, to help in the improvement of productivity which can be defined

as a way of ensuring the prospect of employability in every nook and corner of the society.

Various attempts and policies have been made from time to time for reforming education in terms of access, equity, excellence, efficiency and relevance of the system as a whole. Today, education is considered part of merit goods. For the greater interest of the general public or the stakeholders, the use of Open Educational Resource (OER) has presented itself as the most viable option to disseminate knowledge and information. With the help of these resources, a knowledge-enabled population can be boosted up in a welfare society. This is very pertinent as ensuring the formation of a knowledge-enabled population is one of the major challenges in the education system in a country like ours. Following the license provided by Creative Commons, OER has become the buzzword in any educational institution whose social role need to justify the use of educational resources for all. Thus OER, in common educational parlance, has been seen as the resources to be used for sharing, adapting and reusing for educating the masses as a whole. Thus, OER has generated a full-fledged international response. Even in India, the initiatives taken under the name of MOOCs have pushed the OER movement to a significant height in most recent times.

For improving the social and economic status of people an education policy has to be framed with a view to creating access to education, to provide equal opportunity to every member of society and to provide reservation of opportunities for the weaker sections of society. Equality of educational opportunity is widely accepted as a universal human right. The main function of education is to develop every member of society as a human resource. A passion for equity and social justice on the part of the framers of education policy would strength on the democratic traditions by providing an educated electorate.



CHECK YOUR PROGRESS

Q 12: Is the access scenario in the NER very encouraging ?

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Q 13: Suggest some measures for improving access to education in the North Eastern Region.

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10.8 LET US SUM UP

- Besides bringing meaningful changes in human life, education also contributes to the formation of human beings as productive citizens.
- That is why perhaps, education is considered to be the bed-rock of the socio-economic, cultural and political uplift of a country.
- Education is necessary, because educated people are well acquainted with the need-based skills, sufficient knowledge and information. The Government of India has made several attempts to provide basic education to all its citizens.RTA 2009 is one of such attempts.
- If an education policy is to reach out to the masses, it has to be guided by a spirit and habit of justness of those who are engaged in the process of formulation of education policy.
- The base of education should be equity and the education policy maker has to be endowed with a spirit of fairness and justness. When the education policy of a state could make every member of society its beneficiary, we can say that such an education system has equity as its base.
- The principle of equity in education underlines the need of expanding education. When the objective of extending education is fulfilled, the equality of opportunity will emerge in such a society. Fairness and

justness on the part of the education policy makers is the sine qua non of equity in education.

- There are rampant gender differences in all stages of education i.e. primary, elementary, secondary and higher in terms of enrolment, drop outs and Gross Enrolment Ratio etc.
- But for a better and welfare society, there is a need to ensure inclusive growth where the basic motto is to bring the equal opportunity to all irrespective of any kind of discrimination.
- There is an urgent need to reduce the gender inequality in every stages of education that will help the society to grow at large. Gender equality means that male and female have equal opportunities to realize their full human rights and contribute to the benefit to be gained from economic, social, cultural, and political development. Parity and equity are the building blocks of equality in education.
- Equality of access, equality in learning, equality of educational attainments and equality of results should be maintained and followed in every educational institution, whether formal and non-formal, that is giving the educational opportunity to the learners.
- Apart from improving the basic infrastructure in school, Open and Distance Learning and Open Educational Resources can play the vital role for accessing education to all in equitable manner.



10.9 FURTHER READING

1) Rao, K. Sudha (ed) 2002. *Education Policy in India.*
2) Naik, J.P. (1966). *Elementary Education in India.*
3) *National Knowledge Commission (2006)*. Government of India
4) North Eastern Region Vision 2020. *Ministry of Development of North Eastern Region*. North Eastern Council (2008)
5) *Economic Survey Assam, 2007-2008.*
6) *The Right of children to Free and Compulsory Education Act 2009.*

10.10 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q No 1: People are divided in accordance with their levels of economic development. For this stratification of society, all people do not enjoy equal educational opportunities.

Ans to Q No 2: What is spent for education is called human investment.

Ans to Q No 3: It is seen that education prepares the learners for higher earnings. These earnings are considered a return on what was spent for education.

Ans to Q No 4: Equity denotes the spirit and habit of fairness, justness. The principle of equity in education underlines the need of expanding of education. When the objective of extending education is fulfilled, the equality of opportunity will emerge in such a society as being more than a mere phrase. Fairness and justness on the part of education policy makers is the *sine qua non* of equity in education.

Ans to Q No 5: Access to education means the freedom for all sections of society, to go to school irrespective of one's caste, creed, religion and economic status.

Ans to Q No 6: The increase in access to education will lead to the expansion of education. This cannot happen without providing equality of opportunity which can be ensured by equity only. The society as a whole will get the benefit of expansion of education if the educational system of that society works out successfully with the objectives of equity and access. Equity in education has to ensure access to the right education and the right educational system to all.

Ans to Q No 7: The constitutional provisions incorporated in Article 45, 46, and 16 are devoted to equity, access and reservation.

Ans to Q No 8: Article 21 A of the Indian Constitution.

Ans to Q No 9: The Article 21 A provides that "the State shall provide free and compulsory education to all children of the age of 6 to 14 years in

such manner as the state may by law, determine."

Ans to Q No 10: The Article 21 A would certainly ensure the universalisation of elementary education in India.

Ans to Q No 11: Acute shortage of competent and qualified women teachers particularly in the schools of rural areas, inadequate basic infrastructural components like school building, child friendly class room, blackboard, teaching learning materials, toilet especially for girls are responsible for the drop outs of girl child from the schools and also these are the factors behind the failure to achieve the goal of universalisation of elementary education in India.

Ans to Q No 12: Though the literacy rate in the NER is impressive, the standard of education in the region is generally low. The knowledge base of school and college graduates is not sufficient to equip them to compete at the national level. The region needs vast improvement in the quality of education so that the children and youth of the region have access to good quality education that will place them on at par with the best in the rest of the country.

Ans to Q No 13: For the improvement of access to education some innovative schemes can be undertaken. Such schemes may be the establishment of non-formal education centres with active parent and community participation, the establishment of "well monitored" anganwadies and non formal education centres. Some other measures include the effective functioning of the mid-day meal (MDM) scheme, increased community involvement through Self Help Groups (SHGs) formed by the mothers of school going children in the locality, Village Education Committee (VECs) and other local bodies.



10.11 MODEL QUESTIONS

A) Short Questions (Answer each question in about 150 words)

Q 1: What do you mean by Access and Equity?

Q 2: How would you like to define gender dimension in education?

Q 3: Why do you think that education is important?

Q 4: What are the various stages of education and why they are important?

Q 5: How do you explain the importance of access, equity and reservation in education?

B) Short Questions (Answer each question in about 300-500 words)

Q 1: Explain the importance and significance of access, equity and quality education system in India.

Q 2: What are the basic factors that encourage in creating the gender biasness in our education system?

Q 3: How would you like to explain the differences between the sexes in the elementary level of education in India?

Q 4: How would you like to explain the gender differences in the secondary level of education in India?

Q 5: How would you like to explain the gender differences in the higher level of education in India?

Q 6: Discuss the strategies for improving the access and quality education system in India.

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UNIT 11: SELF-FINANCING AND FUND MOBILISATION IN THE EDUCATIONAL INSTITUTIONS

UNIT STRUCTURE

11.1 Learning Objectives

11.2 Introduction

11.3 Cost of Education

- 11.3.1 Private Costs
- 11.3.2 Social Costs
- 11.3.3 Opportunity Costs

11.4 Self-financing Education and Its Role in India

11.5 Nature and Type of Self-financing Programmes

11.6 Problems of Self-financing Education in India

11.7 Fund Mobilisation in Educational Institutions in India

11.8 Educational Institutions and Their Sources of Fund in India

11.9 Let Us Sum Up

11.10 Further Reading

11.11 Answers to Check Your Progress

11.12 Model Questions

11.1 LEARNING OBJECTIVES

After going through this unit, you will able to-

- identify the cost of education particularly in the elementary and higher level
- mention the pattern of financing in education
- recognise the different types of self-financing programmes in India
- identify the different problems involved in self-financing programmes
- explain the sources of fund of the different types of educational institutions in the country.

11.2 INTRODUCTION

The leading issue in the economics of education is the question of how education should be financed. This issue raises many ideological differences regarding how the financial burden should be shared among the government, individuals and employees of the educational institutions and what should be the balance between public and private sources of finance.

In India, education is predominantly a state controlled sector and is highly subsidised especially in the elementary education sector. India has a federal structure and hence different layers of governmental activities are involved in the provision of education. The constitution of India clearly demarcates the areas of operation of the central and state governments. India has set up agencies to specifically deal with the issues pertaining to the devolution of resources between the central and state governments. The financing mechanism and the funding pattern existing in India are completely dependent on the constitutional demarcation of powers and negotiated devolution of resources among the different states in the country.

11.3 COST OF EDUCATION

Since education is a good in the terminology of economics, the consumption of education involves monetary and non-monetary costs. These costs are briefly discussed below:

11.3.1 Private Costs

Private Costs or individual costs of education are those that are incurred by the students or their parents, guardians or by the family as a whole. For example, tuition fees, examination fees, other fees, books, technological equipments, uniforms, bags, transportation costs and hostel or living expenses etc. come under the category of individual or private costs. There are two types of private costs namely, direct private cost and indirect private cost.

11.3.2 Social Costs

These costs are the concern of the society. They are borne out as a result of training and educational activities in the education process at a given point of time. These are the costs as the name implies, incurred at the institutional level-government, private or mixed. These are the institutional or the public costs of education. The social costs include all recurring and non-recurring costs of education, current and capital expenditure and other institutional costs borne by the state.

11.3.3 Opportunity Costs

In economics analysis, the value of resources is measured in terms of the alternative opportunities that are sacrificed when resources are allocated in a particular way and those resources are limited. Government can use the resources devoted to education to provide health care or other welfare activities. For example, the opportunity cost of going to college for a three-year degree is the money you would have earned if you worked somewhere else instead in those three years. Thus, opportunity cost is the cost of alternatives foregone.

11.4 SELF-FINANCING EDUCATION AND ITS ROLE IN INDIA

Self-financing programmes or courses are the programmes, which are financed by charging user fee from students (i.e. from the parents of students). In addition, the government subsidy for these programmes is almost zero. The nature of the self-financing programmes depends on the institutional mode under which it is delivered. There are several programmes in the country, which are delivered through self-financing option. For example, there are a number of self-financing technical and professional courses in the fields of Engineering, Business Administration, Information Technology, etc. viz. B. E. (Bachelor of Engineering), BBA (Bachelor of

Business Administration), BCA (Bachelor of Computer Application), MBA (Master of Business Administration), MCA (Master of Computer Application) etc.

In India, myriads of educational institutions provide such self-financing programmes. These institutions include private universities, deemed universities, central and state universities and their affiliated colleges-government, aided and private, besides some Institutes of National Importance. These institutions deliver regular higher education programmes along with the self-financing programmes.

11.5 NATURE AND TYPE OF SELF-FINANCING PROGRAMMES

One of the main reasons of the commencement of self-financing programmes in the country is the inadequate fund allocation in education particularly in higher education. Most of the regular programmes in Government or Government aided and privately managed colleges are subsidised by the government. However, due to the paucity of resources, the institutions have begun to introduce self-financing programmes. Since these institutions already have developed infrastructure, the user fee from the students is charged in order to meet the recurring and capital expenditure. It should be noted that it is the market principle that determines the price of higher education in case of private universities and private deemed university. In case of private colleges under the statutory control of a university, the market principle of determining the fees is subject to some regulatory control.

In Government or Government-aided and privately managed educational institutions like colleges, fee are charged only on the principle of recovering recurring expenditure. Theoretically, there are two types of self-financing courses. According to the first type, there are some self-financing programmes in which the course fee recovers capital as well as revenue expenditure as in case of a private university, a private deemed university and a private college affiliated to a university. In these institutions, there is no effective regulation and monitoring on fees and, therefore, here market

principle rules. Private colleges charge fee under the same principle but it is controlled by the state university. On the other hand, according to the second type, self-financing programmes are those programmes in which the course fees recover the revenue expenditure only as in case of government and aided colleges under the supervision and control of university.

11.6 PROBLEMS OF SELF-FINANCING EDUCATION IN INDIA

In India, the growth of self-financing programmes is not appalling but the progress is hampered by many factors. Some of those factors are discussed below:

- **High Course Fee:** The course fee is very high because the private institutions in India provide most of self-financed courses. As a result, the course fee of the education is quite high. Moreover, the cost of professional self-financed courses is forcing higher fee in some disciplines compared to other programmes.
- **Lack of Financial Support:** In India, there is lack of financial support for the students who pursue self-financed courses. Financial support in the forms scholarship, grants and subsidised loans is very inadequate in comparison to other countries like Japan, USA and Brazil. Thus, the state needs to subsidise not only the fee component but also food, housing, conveyance and various other factors that affect demand for higher education in an important manner.
- **Lack of Curricular Reform in Self-financing courses:** Courses are not customer orientated and their curriculum is not innovative compared to the international standards.
- **Absence of Monitoring Mechanism:** There is no monitoring mechanism to supervise the fee in case of the self-financing courses in government as well as aided and private colleges in India. Therefore, the universities should create a benchmark in the standards for self-financing courses in terms of curriculum, availability of competent teachers, teaching learning practices, evaluation, library, lab facilities etc.



CHECK YOUR PROGRESS

Q 1: How is education financed in India?

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Q 2: What is the private cost of education?

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Q 3: What is the social cost of education?

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Q 4: What is the opportunity cost of education?

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Q 5: What is meant by self-financing education?

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11.7 FUND MOBILISATION IN EDUCATIONAL INSTITUTIONS IN INDIA

In most countries, a major portion of the cost of education is financed through general taxation or other government revenue particularly at the primary and secondary levels. In some countries, students receive free education or pay very low fee like in case of a country like India. However, in case of private schools, the fee is very high because of the numerous facilities provided by private schools and fee is the only source of their revenue. However, there are some private schools where there is often some degree of public subsidy either by means of tax concessions for those institution or direct financial assistance for teachers' salaries and so on.

In many countries, fee is charged in institutions of higher education, but this fee is often below the true costs of the higher education. But, many students receive financial aids in the form of scholarships, grants and subsidised students loans, which help to reduce the financial burden of

education which reduces the private costs of education and thus increases the private rate of return.

The major sources of the funds for education in India are mainly the government sources-from both the central and state governments. As directed by the Constitution of India, education used to be the responsibility of the state governments. But, at present, education comes under the joint responsibility of both the central and state governments. Even then, a substantial portion of the resources for education comes from the state governments, which expect devolution of a larger share of resources from the central government. Besides, there is competition among the states to get larger shares of the central resources. This competition sometimes results in disagreement between state governments and central government on the question of the devolution of resources.

More often than not, the resources actually made available to education are more a reflection of the interaction of various forces at different levels of governmental controls rather than a reflection of sound economic or investment criteria. While the pattern of devolution of resources may indirectly ensure the national priorities in education, its actual utilisation is the responsibility of the state government. The multi-level structure of planning and management within the federal framework therefore becomes crucial in the allocation and utilisation of resources for education in India.

11.8 EDUCATIONAL INSTITUTIONS AND THEIR SOURCES OF FUND IN INDIA

There are many types of educational institutions in India and the source of finance for these institutions is also different from each other. However, depending upon the levels of control and patterns of management, educational institutions in India can be broadly divided into three categories:

- **Government Institutions :** Government institutions are those institutions where the funding, administration and management of the institutions are under the full responsibility of the government. In India, government institutions form the major chunk of the total educational

structure especially in the primary education sector.

- **Semi-Government Institutions :** These institutions are government aided or grant receiving institutions, which are mostly funded by the government but are managed by private enterprises. The share of semi-government institutions is increasing in the country particularly in case of primary and higher education.
- **Private institutions :** Private institutions may be recognised or may not be recognised by the government. They do not receive grants from the government. In that case, the government neither provides the funds nor is involved with the administration, supervision and management of the institutions. In addition, there are some institutions, which are totally private institutions because those institutions are neither funded nor recognised by the public authorities. This category of institutions is mainly seen in the pre-primary stages in the field of school education. The number of private schools, nowadays, growing rapidly and they constitute a large proportion of educational institutions in the urban areas.



11.9 LET US SUM UP

- Now a day, financing education is one of the important issues in the economics of education.
- The financing mechanism and the funding pattern existing in India are a reflection of the Constitutional demarcation of powers. Presently in India, education is the joint responsibility of the state and centre.
- Since education is a good in the terminology of economics, the consumption of education involves monetary and non-monetary costs. There are three types of cost of education-private costs, social costs and opportunity costs.
- Self-financing programmes or courses are the programmes financed by charging user fee from students. There are several programmes

in the country, which are delivered through the self-financing option.

- Paucity of resource is the main reason of the commencement self-financing programmes in the country. There are two types of self-financing courses. In the first, the course fee recovers the capital as well as revenue expenditure. And, in the second, the course fee recovers the revenue expenditure only.
- However, the growth of the self-financing programmes is hampered by factors such as-high course fee, lack of financial support, traditional curricula and absence of monitoring mechanism.
- In India, the cost of education is financed through general taxation or other government revenue particularly at the primary and secondary levels. The major sources of funds for education in India are mainly the sources from both the central and state governments.
- Depending upon the levels of control and patterns of management, educational institutions in India can be divided into three categories-government institutions, semi-government institution and private institutions.



11.10 FURTHER READING

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11.11 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q No 1: In India, education is predominantly a state controlled sector and highly subsidised especially in case of elementary education. India has a federal structure and hence different layers of government are involved in the provision of education. The constitution of India clearly demarcates the areas of operation of the central and state governments. India has set up agencies to specifically deal with the issues pertaining to the devolution of resources between the central and state governments. The financing mechanism and the funding pattern existing in India are completely dependent on the constitutional demarcation of powers and negotiated devolution of resources among the different states in the country.

Ans to Q No 2: Private Costs or individual costs of education are those that are incurred by the students or their parents, guardians or by the family as a whole. For example, tuition fees, examination fees, other fees, books, technological equipments, uniforms, bags, transportation costs and hostel or living expenses etc. come under the category of individual or private costs. There are two types of private costs namely, direct private cost and indirect private cost.

Ans to Q No 3: Private Costs or individual costs of education are those that are incurred by the students or their parents, guardians or by the family as a whole. For example, tuition fees, examination fees, other fees, books, technological equipments, uniforms, bags, transportation costs and living expenses etc. come under the category of individual or private costs. There are two types of private costs namely, direct private cost and indirect private cost.

Ans to Q No 4: In economics, the cost measured in terms of the alternative opportunities is very important while judging resources allocation to a particular sector in an economy. The government can use the resources devoted to education to provide health care or other welfare

activities. For example, the opportunity cost of going to college for a three-year degree is the money you would have earned if you worked somewhere else instead in those three years. Thus, opportunity cost is the cost of alternatives foregone.

Ans to Q No 5: Self-financing programmes or courses are the programmes, which are financed by charging user fees from students (i.e. from parents of students). In addition, the government subsidy for those programmes is almost zero. The nature of self-financing programmes depends on the institutional mode under which it is delivered. There are several programmes in the country, which are delivered through the self-financing option. A number of technical and professional courses in the fields of Engineering, Business Administration and Information Technology are available through self-financing mode in India.



11.12 MODEL QUESTIONS

A) Short Questions (Answer each question in about 50-150 words)

Q 1: Why do you think that self-financing is important for education?

Q 2: What is the private cost of education?

Q 3: What is the social cost of education?

Q 4: What is the opportunity cost of education?

Q 5: What is self-financing education?

Q 6: Explain the different types of cost of education.

B) Long Questions (Answer each question in about 300-500 words)

Q 1: What is self-financing education? What are the nature and types of self-financing courses in India?

Q 2: Discuss the problems of self-financing education in India.

Q 3: Explain the fund mobilisation processes in the educational institutions of India.

Q 4: What are the types of educational institutions in India? Explain their source of finance.

*** ***** ***



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Name of the Paper: .....
Course Code: .....

Centre for Internal Quality Assurance (CIQA)
Krishna Kanta Handiqui State Open University
City Office: Housefed Complex, Guwahati-781006

Learner's Feedback on Course

Dear Learner,

Regarding the course as mentioned above, we would like to know your opinions and comments so as to improve the quality of self learning materials in future. Please respond to the following statements by ticking the number you feel most reflect your opinion. After completion of the additional comments, please detach the page and send/mail the same to us at the address given below.

The Director, Centre for Internal Quality Assurance, KKHandiqui State Open University
Housefed Complex, Dispur, Guwahati-781006
(E-mail id: ciqa@kkhsou.in)

1) Approximately how many hours did you spend for studying the units in the course? ☐☐☐

2) Please give your opinions (by ✓ mark) to the following items based on your reading of the block:

Sl. No.	Statements	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
I)	The SLMs of the course fulfil the learning objectives set out in the beginning of each unit					
II)	The units of the SLM could satisfy my academic needs and expectations					
III)	The Unit writers have excellent knowledge about the course contents					
IV)	Language and contents of the units were presented at a level which I could readily understand					
V)	Ample opportunity for participation in the activities provided in the units					
VI)	Used enough Illustrations (Diagrams, tables etc.) for conceptual clarity					
VII)	Quality of content is engaging, relevant, and up-to-date					
VIII)	The self check questions are very helpful					
IX)	The Possible/model questions and the answers to check my progress have benefited me a lot					

Additional Comments: *(Please feel free to provide your open comments)*

1) Which aspects of the SLM, according to you, worked well?

   .....

   .....

2) What sort of changes/improvements do you feel KKHSOU could implement to improve the overall quality of the SLM?

   .....

   .....

Thank you for taking the time to complete this form.