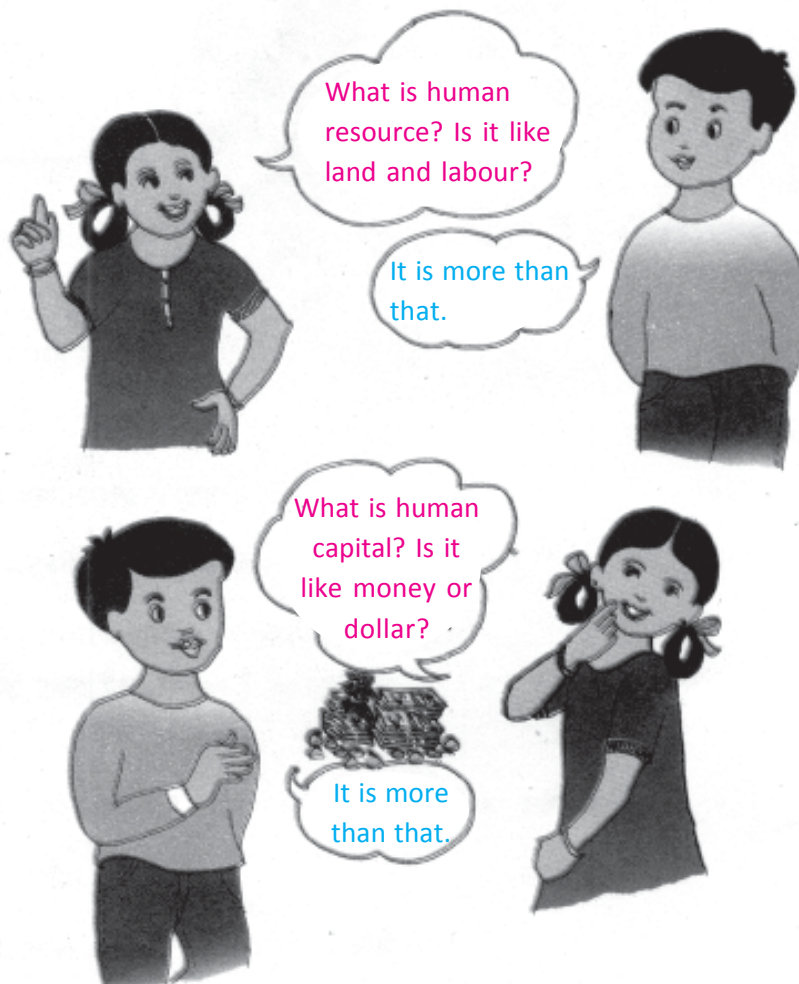


Chapter-2

People as a resource



Introduction:

Man is a social animal and his minimum requirement is food, clothes, shelter, medical care and education. In previous chapter we studied the

resources of production through a story in which 'enterprise' was a resource. Enterprise has been considered as an active resource of production. Enterprise is not a non-living thing, but it is a living thing that is known as man. So man is the main source of production. As a lock is useless without key similarly a production process or development work cannot begin without man.

For carrying the process of production ahead, man has been accepted as a resource. We can know it in the form of human capital too. However, man is paramount among all resources. Now 'human resource' is called 'human capital' because it is the main part or resource of production process.

Objective:

For development of any country, resources should be used collectively. For intensive use of resources, a strong Human Capital is needed. 'Human capital' depends mainly on **food, clothe, shelter, health, education, training, information technology, management** etc. while resource hints to Physical Capital. On this basis difference can be identified between physical and human capital.

Human capital is living and active whereas physical capital is non-living and inactive. The role of human capital is very important in producing physical capital.

It is very important to strengthen and intensify the hidden talent of human being. With this objective we shall try in this chapter to focus on various dimensions of human capital. How can the human capital be enriched? We shall discuss this in this chapter in detail.

The life standard of human being will increase with development of a country and state in relation to development of human capital.

People – in the form of a resource

Picture 2.2



Meaning of 'human in the form of resource' is 'skills' and 'abilities' of working population of country.

When a person acquires abilities and skills for extending contribution in creation of national producer he becomes a resource.

Therefore, a person becomes national property when he acquires training, ability and skills by investments made on him through education, health and training.

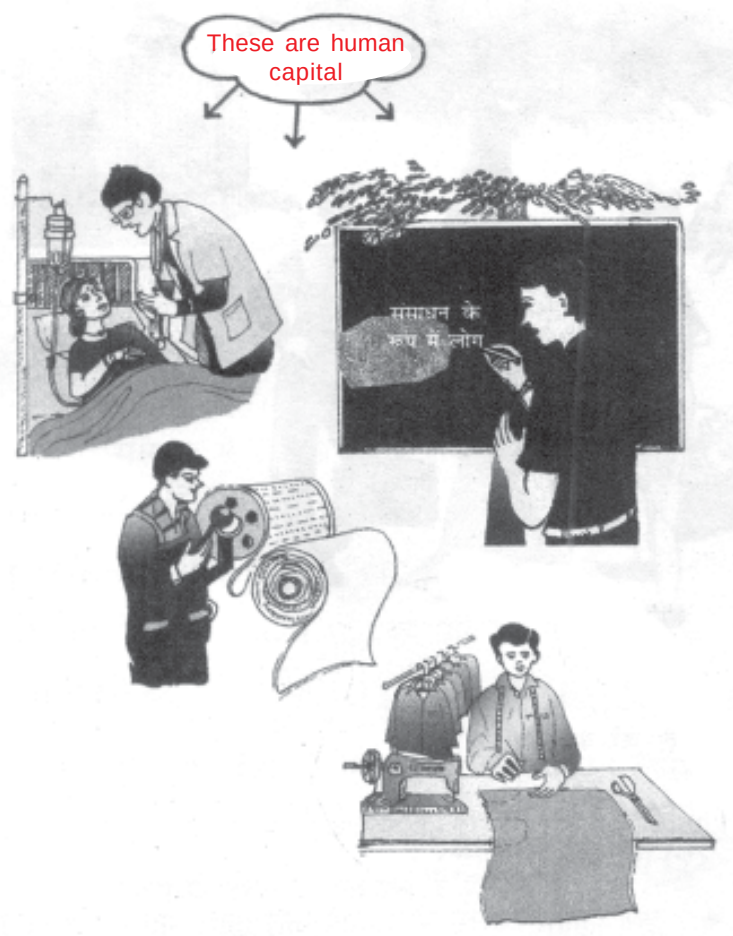
Thus he is transformed into a form of resource. In reality the productivity of a trained, skilled, qualified and specialised person is more than a person who is uneducated, untrained, without knowledge, unskilled, unhealthy and weak and their contribution to the development of economic system always remain more.

Children! Do you know, you are very important resources and you are being transformed into an important human capital by imparting education?

Through education you will remain at the centre of production capacity and play an important role in the development of country as a part of valuable resources as a doctor, engineer, manager or a teacher.

For example, as a country, through industries, transforms its physical resources into physical capital, in the same way the human resource in the form of students are transformed into engineer, doctor, teacher, lawyer, etc. Therefore, investment is needed for transforming human into resource. The kinds of investments are known in the forms of food, clothe, shelter, health, education and training. In the given picture human is presented as resource through education and training.

Picture No. 2.3.



Human Capital

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Physical and Human Capital

Children! till now read about human resource and understood its importance, but how is human capital different from physical capital? Now, we shall try to know it.

Both physical capital and human capital are result of investment, but there are differences between them that can be displayed as follows:

Differences between Human Capital and Physical Capital

Both, human capital and physical capital, are outcome of investment, but there are some differences between them that can be illustrated like this:

Physical Capital	Human Capital
i. Physical capital is passive resource of production.	i. Human capital is active resource of production.
ii. Physical capital is tangible that can be carried to market..	ii. Human capital is intangible and it cannot be carried to market. Only the services of human capital can be purchased and sold.
iii. Physical capital can be separated from its owner.	iii. Human capital cannot be separated from its owner.
iv. Physical capital is perfectly mobile within the country.	iv. Human capital is not perfectly mobile . It is related to nationality and culture.
v. Physical capital has depreciation in terms of time due to its regular use.	v. In human capital depreciation is likely with increase in age but it can be compensated through regular investment in education and health.
vi. Through physical capital the owner gets private benefit .	vi. From human capital the owner gets private benefit but simultaneously society also acquires social benefits.

Human Capital formation or Development of Human Resources

Transformation of human as resource - through education, health, training, information technology, etc

There are two types of capital – physical capital and human capital. When machine, instruments, tools and equipments, buildings of factories, raw materials ,etc. are used in order to increase production, it is called Physical Capital. But when human is used for its knowledge and skills it is called human capital for which various resources are being described here-

Resources of Human Capital

- food
- clothe
- shelter
- health
- education
- training
- information technology
- management

Food – to keep the body alive and healthy food is essential.

A hungry person cannot do additional work of mental level due to his concern to feed himself. Therefore, food is the primary need of human resource.

Clothe – When the need of food is fulfilled a human being wants garments to clothe his body. The demand of clothe, in India a country of changeable seasons, is very important demand. This is another matter that the need of clothe in cold places are fairly large and in the hot and normal climate the need of cloth is less.

Shelter – The third essential demand of human being is a roof on his head that is home, where he can keep himself protected in variable seasons.

Health – A sound mind develops in a healthy body. Therefore, sound health of a person is his important capital and an investment for its development is to



Picture: 2.4

transforming him into valuable resource. In comparison to a common person a healthy one works better and plays an important role in the development of country.

Health Centre

Finally, **expenditure on health is an important source of human capital formation.**

Education – The contribution of education is also very important in creating human capital. Education is the medium through which a person enriches himself in the

form of human capital so people invest on education for their own progress as well as the development of their country.

As companies for a desired profit spends on capital goods, in the same way education makes human capital more productive by enhancing its capacity.

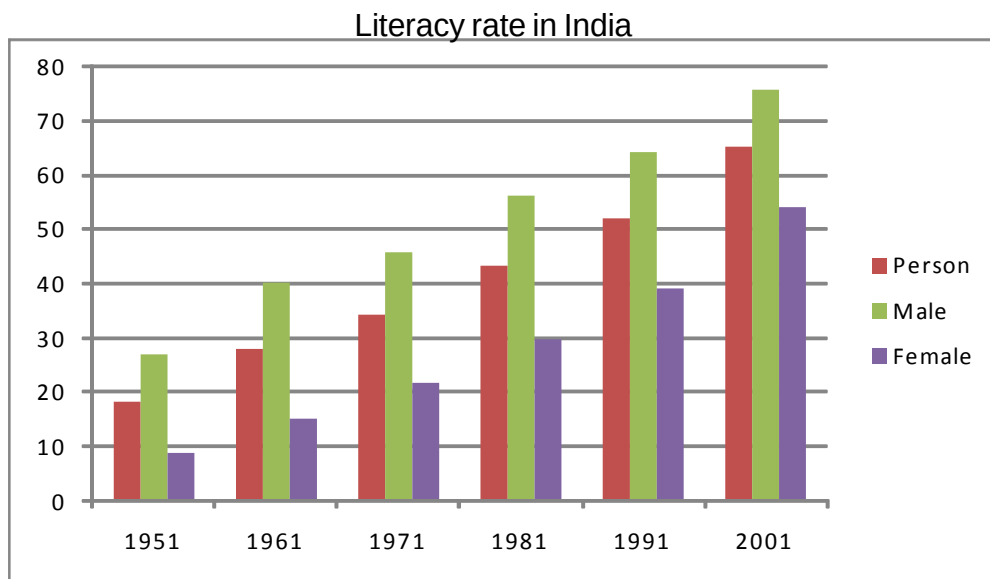


Picture: 2.5

Nobel Prize laureate Prof. Amritya Sen has emphasised on making elementary education **fundamental right** for citizen in order to enrich education in the form of human capital. In spite of economic development in previous years in India, the number of educated person have not considerably increased that is clear from the following table:

year	person	male	female
1951	18.3	27.2	8.9
1961	28.3	40.4	15.3
1971	34.5	46.0	22.0
1981	43.6	56.4	29.8
1991	52.2	64.2	39.3
2001	65.4	75.9	54.2

The above figures can be presented through a diagram.



Picture 2.6 (Census of India 2001)

From the above table and diagram it is clear that literacy rate of India has increased in every decade. Still the male literacy rate is higher than female



Officers imparting training on sericulture

literacy rate that shows a backward thinking towards females. We ought to take pledge for extension of education for both male and female.

Training – Through education we increase only our bookish knowledge. To connect this knowledge with skill some special knowledge is required. The need of special training for a particular work is connected to technical education. In modern time need of training has increased with its increasing demand because we have to prove ourselves skilled in the world market.

Human Capital creation or Human Resource Development

The ultimate goal of India's development plan is the creation of human capital, so that in the long run the economic reforms could be made successful. During last few years in India there has been a considerable development in human resources that can be seen from population related better indicators, standard of literacy and education and standard of health services. Average life expectancy, literacy rate, birth and death rates, and infant mortality rates are true indicators of Human Development. On the basis of the indicators of the human development we can say that India has progressed in the development of Human Resource which is shown in the following table:

	1951	32.2	18.3	39.9	27.4	1
	1961	41.3	28.3	41.7	22.8	1
	1971	45.6	34.5	36.9	14.9	1
	1981	54.4	43.6	33.9	12.5	1
	1991	55.9	52.2	29.5	9.8	
	2001	63.8	65.4	25.8	8.1	

Source: Govt. of India, Economic Survey 1996-97 & 184 and Economic Survey 2002-03

From this table it is obvious that in India during plan period **average life expectancy** and **literacy rate** have increased while **birth rate, death rate and infant mortality rate** have decreased. An increase is registered in **per capita income** also. The data are indicators of the fact that in India there has been a considerable progress in the development of human resource.

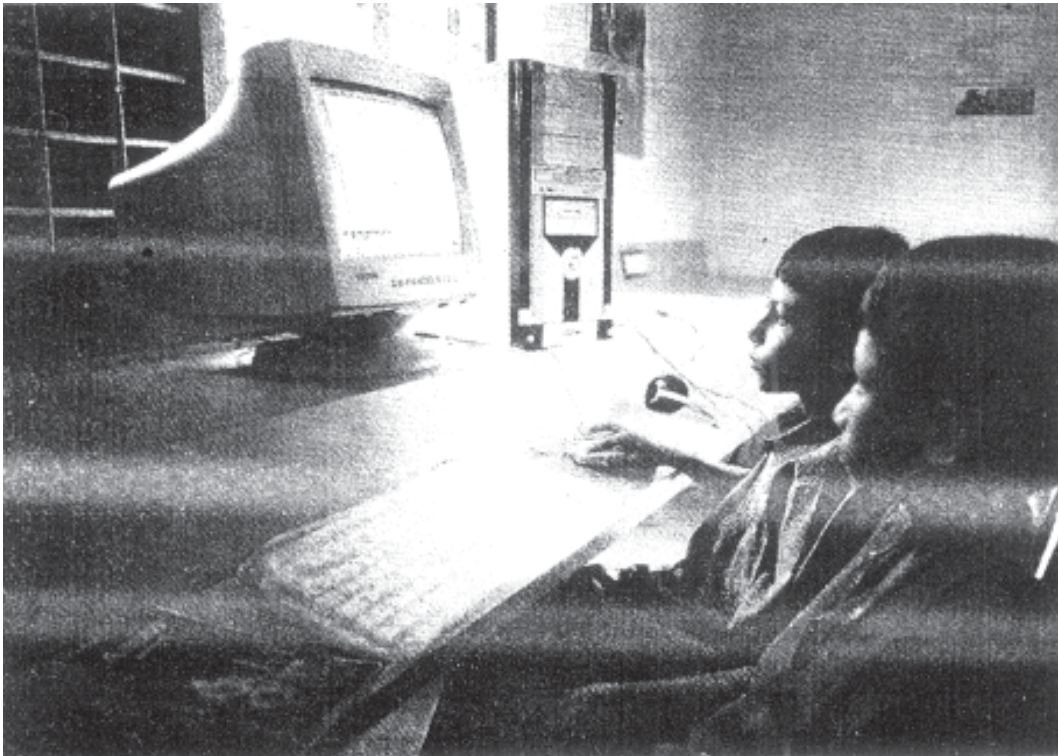
The following educational research centres have been extending their services in the development of human resource-

Abbreviation	Extended form of abbreviation
---------------------	--------------------------------------

U.G.C.	University Grants Commission
N.C.E.R.T.	Nation Council of Educational Research and Training
S.C.E.R.T.	State Council of Education Research and Training
I.C.A.R.	Indian Council of Agriculture Research
I.C.M.R.	Indian Council of Medical Research
I.C.S.S.R.	Indian Council of Social Science Research

Information Technology – Modern age is an age of information technology (IT). Information Technology is a capital for enrichment of human resource. Through this human being enriches his knowledge and through learned techniques helps in enhancing production. Due to information technology there is opportunity to know the ways of earning profit by investing limited capital in production sector. People of other places can be benefitted by using information technology. The advantage of the technology is being taken in rural areas in a state like Bihar.

Picture 2.7



School children using internet

Management – The standard of management can be enhanced through the increased level of education. When we gather all resources of population and use it properly in a collective manner, it is represented as an accomplished organisation. Only a man of acute acumen can lead an accomplished organisation and such sharpness of mind and intelligence are acquired through training.

Population

The meaning of population is human population. It is an invaluable capital of any nation, and carries out production of goods and services, distribution and consumption and thus contributes in the economic development of country. So population is called both means and end. But there is limit of augmentation of anything and its violation is always a dangerous thing.

If means and resources of any country is in proportion to its population it is called favourable and ideal population but in inverse situation when available resources are not enough to mete out the demand of its population, it is called over populated. many countries are affected by the problem of overpopulation, but when we talk about India it is on the most dangerous level of over population that is denoted with 'population explosion' which is clear from picture 2.6.

Picture 2.6

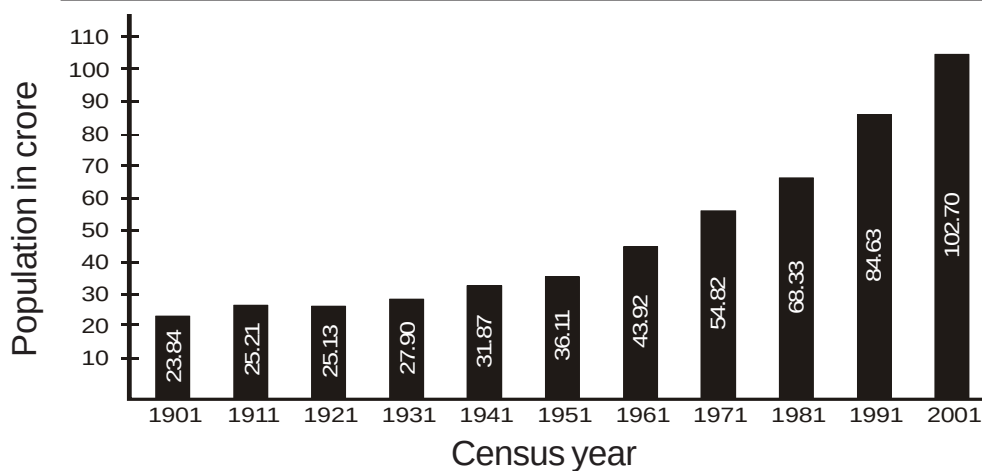


Rapidly growing population of country

The above data corroborates the fact that the population of India is growing rapidly in an uncontrolled way. At the time of independence the population of the country was **33 crores**, but growing rapidly it touched the figure of **102.70 crores** in 2001. In every ten year census is conducted in India. The trend of rapid growth of population can be seen from the following table –

Population of India

Census Year	Population in crore	Changes in decade (in crore)	Growth rate in crore
1901	23.84	+0.24	–
1911	25.21	+1.37	+5.75
1921	25.13	–0.08	–0.31
1931	27.90	+2.77	+11.00
1941	31.87	+3.97	+14.22
1951	36.11	+4.24	+13.31
1961	43.92	+7.81	+21.64
1971	54.82	+10.90	+24.80
1981	68.33	+13.51	+24.66
1991	84.63	+16.30	+23.86
2001	102.70	+18.01	+21.30



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मूल्य जनसंख्या

0.83% 0.59% 1.59% 9.42% 8.07% 7.81% 7.37% 6.05% 5.88% 5.50% 5.14% 4.93% 3.57% 3.10% 2.62% 2.59% 2.37% 2.03% 1.34% 0.83% 0.59% 1.59%

उत्तर प्रदेश 16.17%

पश्चिम बंगाल 9.42%

बिहार 8.07%

मध्य प्रदेश 7.81%

आंध्र प्रदेश 7.37%

कर्नाटक 6.05%

महाराष्ट्र 5.88%

गुजरात 5.50%

केरल 5.14%

तमिल नाडु 4.93%

ओडिशा 3.57%

पंजाब 3.10%

हरियाणा 2.62%

असम 2.59%

राजस्थान 2.37%

उत्तरांचल 2.03%

जम्मू, कश्मीर 1.34%

हिमाचल प्रदेश 0.83%

0.59%

1.59%

Bihar: Population and its different constituents

According to 2001 census the population of Bihar is 8,28,78,796 (8.28.crores) i.e. 8.07 percent of total population of India. Thus after Uttar Pradesh and Maharashtra, Bihar is the third largest state in terms of population.

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In 1991 the population of undivided Bihar was a little more than ten percent of the total population of India and nafter Uttar Pradesh, Bihar was the second largest state of country. The population of Bihar decreased after Jharkhand got separated as a state.

Population Growth Rate in Bihar

During 1991-2001 the population growth rate is 28.43 percent that is more than the national growth rate (21.34 percent). In this decade 1991-2001 the population growth rate of 22 districts of Bihar was more than the average population growth rate of the state, i.e., 28.43. The new district Sheohar was on the first position with 36.16 percent growth rate. On the other hand, population growth rate of Nalanda was lowest with 18.64 percent while in 1981-1991 its growth rate was 21.73 percent. It is obvious that population growth rate of Nalanda has definitely decreased.

Districts with highest and lowest population in state are shown in the following:

(1) *In descending order*

(2) *In ascending order*

Again, according to population growth rate of Bihar, five districts with highest growth and five districts with lowest growth rates are depicted here-

(3) *In descending order*

(4) *In ascending order*

5 districts with highest population in state	
1. Patna	47,09,851
2. East Champaran	39,33,636
3. Muzaffarpur	37,43,836
4. Madhubani	35,70,651
5. Gaya	34,64,983

5 districts with lowest population in state	
1. Sheohar	5,14,288
2. Sheikhpura	5,25,137
3. Lakhisarai	8,01,173
4. Munger	11,35,499
5. Khagadia	12,76,677

5 districts with highest population growth in state	
1. Shivhar	36.16%
2. Purnea	35.23%
3. Nawada	33.03%
4. Saharsa	33.03%
5. Jamui	32.90%

5 districts with lowest population growth rate in state	
1. Nalanda	18.64%
2. Munger	20.34%
3. Lakhisarai	23.94%
4. Banka	24.47%
5. Bhojpur	24.58%

Population Density

The meaning of population density is people residing in an area of per square kilometre. According to census 2001, the population density of Bihar is 880 per sq.km while in 1991 census it was 685. Five districts of state with highest population density and five districts with lowest density are shown in the following table:

(5) In descending order

(6) In ascending order

Sex Ratio (Male Female Ratio)

5 districts with highest density (per sq.km) in state	
1. Patna	1,471 person
2. Darbhanga	1,442 person
3. Vaishali	1,332 person
4. Saran	1,231 person
5. Begusarai	1,222 person

5 districts with lowest density (per sq.km) in state	
1. Kaimur	382 person
2. Jamui	451 person
3. Banka	533 person
4. W.Champarn	582 person
5. Aurangabad	607 person

The meaning of sex ratio or male female ratio is number of females in comparison to one thousand males. As is the case with India, in Bihar also that here the number of males are more than the number of females. According to 2001 census the sex ratio in Bihar was 921 while in 1991 census it was 907. The male female ratio in Bihar is lower than the male female ratio in India.

Five districts with highest sex ratio and five districts with lowest sex ratio in state are presented here-

(7) *In descending order*

5 districts with highest sex ratio in state		
1.	Siwan	1033
2.	Gopalgan	1005
3.	Saran	965
4.	Nawada	948
5.	Madhubani	943

(8) *In ascending order*

5 districts with lowest sex ratio in state		
1.	Patna	873
2.	Bhagalpur	878
3.	Munger	878
4.	Khagadia	890
5.	Sitamarhi	893

Let' Do

1. Children! Determine the male female ratio of your family members.
2. Find out male female ratio of teachers working in your school.
3. Try to know the male female ratio in your class.

Literacy in Bihar

If a person together with understanding a language knows to read and write it, is called '**literate**'.

According to census 2001, the total number of literates is 3,16,75,607 including 2,09,78,955 males. The number of literate females is 1,06,96,652. It means only one female is literate in comparison to two males. The literacy rate in Bihar in 2001 census is 47.53 percent whereas in 1991 the percentage was 37.49. In this way in the last decade the literacy rate in Bihar has roughly increased by 10% that still it is fairly lower than national literacy rate i.e.65.38%.

(7) *In descending order*

5 districts with higher literacy rate in state	
1. Patna	63.82%
2. Rohtas	62.36%
3. Munger	60.11%
4. Bhojpur	59.71%
5. Aurangabad	57.50%

(8) *In ascending order*

5 districts with lowest literacy rate in state	
1. Kishanganj	31.02%
2. Araria	34.94%
3. Katihar	35.29%
4. Purnea	35.51%
5. Madhepura	36.19%

Let's increase our knowledge, Children! Divide yourselves into groups and find out the number of literate persons in your mohall or village. Also find out number of literate males and females and display it through a chart.

Rural and urban Population

In any state, the process of urbanization displays the pace of its development. Urbanization has remarkable impact on economic development; therefore, urbanization and development are closely related to each other. **The more the urbanization of a state, the more it will go ahead in the development sector.**

The position of urbanization in Bihar is not heartening. Patna, Muzaffarpur, Bhagalpur, Chapra, Gaya and Vaishali are among prominent districts in Bihar where urbanization took place. When industrial and commercial areas develop, urbanization begins spontaneously and automatically. In very few districts in Bihar urbanization is outcome of extension of education and services e.g. Patna.

Presently in Bihar, the ratio of urban and rural population is 89:11 (2001).

Reasons of population growth in Bihar can be seen point wise like this-

- hot climate
- joint family system
- child marriage
- illiteracy
- poverty
- traditional values
- lack of awareness towards family planning
- other reasons

The measures to check rapidly growing population in Bihar are point wise in the following:

- fast economic development
- family planning
- equal and just distribution of wealth and income
- publicity and spread of education
- awareness
- government effort

National Population Policy, 2000

In the ninth five year plan (1997-2002), it has been admitted that sustainable development and population are closely related. In order to maintain development process, it is most important to check the growing population and with this aim the National Population Policy was announced by Government of India on 15, February, 2000. In this policy, population stabilization has been considered as basic need for sustainable development with equal distribution.

The policy has **immediate**, **mid-term** and **long-term** objectives.

The **immediate objective** of National Population Policy-2000 is to address the unmet needs for contraception, fulfilment of immediate needs, health care infrastructure and health personnel, and to provide integrated service delivery for basic reproductive and child health care.

The **mid-term** objective is to bring the total fertility rate (TFR) to replacement level by 2010.

So in this policy, the **long-term** objective is to achieve a stable population by 2045 at a level consistent with the requirement of sustainable economic growth, social development and environmental protection.

To make the population stable by 2045 the following measures are discussed mainly in the national Population Policy-

1. Reduce infant mortality rate to below 30 per 1000 live births.
2. Reduce maternal mortality ratio to below 100 per 1,00,000 live births.
3. Achieve immunization of children.
4. Achieve 80% institutional deliveries by trained person.
5. To promote awareness among people against AIDS and apply measures for its control.
6. To give incentive to a family of two children.

7. To enhance the facilities for safe termination of pregnancy.
8. To implement law against child marriage sternly.
9. Promote delayed marriage for girls preferably after 20 years of age.
10. To provide special reward for those women who marry after 21 years of age and get sterilized after two issues.
11. To make provision of health insurance for the persons belonging to below poverty line (BPL) family who get sterilized after two issues.
12. To constitute a National Commission on Population under chairmanship of Prime Minister to have an eye on National Population Policy.

Under the policy a 10 year action plan is formulated to stable the population at 1100 million by 2012. The points discussed therein are hereunder-

1. To constitute Self Help Groups (SHG) with mainly housewives as its members who will remain in contact with health workers and Panchayats.
2. To make primary education free and compulsory.
3. To make registration compulsory for marriage and pregnancy along with birth and death.

Through the policy, the government hopes to stabilize the population by 2045. The policy is criticised on the ground that the whole burden of population control rests upon females and males are left free. Males should also be encouraged for sterilization along with females after having two issues. The burden of population control should be equal on both the sexes.

State has also been recommended to adopt National Population Policy-2000 under Gadgil Formula. Under this formula it is affirmed that the states should get its appropriate share in the revenue of Central government namely the states with lower population will get more shares in per capita national income. It is imperative on the densely populated states like Bihar to have control on its population. If it is not possible, there will be continuous decrease

in the per capita income of Bihar and it will be compelled to suffer problems like poverty and unemployment simultaneously.

Summary

Human Capital is capital for economic development. The spread of Physical Capital is possible from Human Capital. In comparison to illiterate, untrained and unskilled person, the contribution of educated, trained and skilled workers fairly large. To earn it is essential to give priority to human development by paying special attention to education, healthcare and high life standard. **Human Capital is more important than Physical Capital.** Human capital means inherent productive skill and knowledge among people.

Particularly for an over populated country or state, a strong human capital is most essential as it is like a pillar of the nation. If the constituents of human capital of a country or state are strong, the economic condition of the nation will be excellent.

Exercise

I. Objective question:

For correct answer write only a, b, c, or d.

- (1) What are the basic needs of human being?
 - (a) food and clothes
 - (b) shelter
 - (c) education
 - (d) all above
- (2) Which among the following is not a human capital?
 - (a) health
 - (b) training
 - (c) inefficiency
 - (d) management

- (3) What has Prof. Amritya Sen emphasise to make primary education for human being?
- (a) fundamental right
 - (b) fundamental duty
 - (c) directive principle
 - (d) unnecessary
- (4) According to 2001 census the literacy rate of India is?
- (a) 75.9 percent
 - (b) 65.4 percent
 - (c) 54.2 percent
 - (d) 64.5 percent
- (5) What among the following is the average life expectancy of human being according to 2001 census?
- (a) 65.4 years
 - (b) 60.3 years
 - (c) 63.8.years
 - (d) 55.9 years
- (6) Which district of Bihar has highest population?
- (a) Patna
 - (b) East Champaran
 - (c) Muzaffarpur
 - (d) Madhubani

II. Fill in the blanks:

1. From human capital there is anin Gross Domestic Product (GDP).
2.resource is active source of production.
3. is essential for the development of human resource.
4. According to census 2001 the Indian Population is.....crores.

5. The state with lowest literacy rate according to 2001 census is.....
6. According to 2001 census the literacy rate of Bihar is

III. Answer in one sentence:

1. What is human resource?
2. Why do we need investment in human resource?
3. What is difference between literacy and education?
4. What is difference between physical and human capitals?
5. What is India's place as per world population?
6. What is birth rate?
7. What is death rate?
8. Who is a literate person?
9. What is elementary (primary) education?
10. What is vocational education?

IV. Write the full forms of the abbreviations:

1. G.D.P.
2. U.G.C.
3. N.C.E.R.T.
4. S.C.E.R.T.
5. I.C.M.R.

V. Short answer question:

(Answer in not more than 20 words)

1. Define human and human resource.
2. How does a human being increase production?
3. What are the two main sources of human capital of a country?

4. Why is it necessary to make a person skilled through education?
5. Clarify the form of population in India through a bar diagram.
6. Write name of five districts in Bihar having highest population growth.
7. Write name of five districts in Bihar with lowest population growth.
8. Bihar is the state with lowest literacy rate in country. Write its two reasons.

VI. Long answer question:

(Answer in 100 words)

1. What is human resource? How does it transform into human capital?
2. What is difference between physical capital and human capital? Clarify it in a table. Is human capital superior to physical capital?
3. Introduce the development of human capital formation in India.
4. Discuss the role of education, health care and shelter in development of human resource.
5. Write a short note on National Population Policy of India.

Answer

I. Objectives:

(1) d (2) c (3) a (4) b (5) c (6) a

II. Fill in the blanks:

(1) increase (2) human (3) education (4) 102.70 (5) Bihar
(6) 47 percent

Project Work:

- I. As per questionnaire, gather information related to population of the area (through personal study)
 1. Name of the respondent -.....
 2. Age -.....
 3. Qualification -.....
 4. Sex -
 5. Number of the family members -.....
 6. Number of total males in the family -.....
 7. Number of total females in the family -.....
 8. Number of total boys in the family -.....
 9. Number of total girls in the family -.....
 10. Monthly income of the family -.....
 11. Main source of income of the family -.....
- II. Prepare a pictorial note of human capital on the basis of preferences.
- III. Display in pie diagram the percentage of state partnership in total population of country.
- IV. Display the percentage increase (decadal) of Indian population in a graph through dotted-lines.

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