

Chapter 8

HUMAN RESOURCES

Define Labour.

Human resources of a country include the total labour supply along with their education, training, experience, discipline and motivation for work.

LABOUR

Labour means physical or mental work undertaken for monetary reward. In this way not only the work of a farmer, a factory worker, a surgeon and a driver is included in labour but also the work performed by a teacher, lawyer, T.V. artist, office clerk, policeman and journalist is considered as labour. Just as a construction worker provides labour, so does a college professor or a physician. The professor produces educational services and the doctor produces medical services.) Any manual or mental activity, which is undertaken for pleasure or personal happiness, is not labour.¹ For example, bringing up of children by the mother, self-gardening and singing as a hobby is not treated as labour. The act of begging is also not labour, since the beggar does not produce a good or service which people are willing to buy. We can define labour formally as

"Labour means all human efforts of body or mind which are undertaken for material reward."

Characteristics of Labour

Labour, as a factor of production, differs from other factors in many respects. It has some special features.

1. *Labour is perishable* more than the other factors. Labour cannot be stored or postponed. If some working time is lost, it is lost forever. This limitation keeps the workers under constant fear that they may not become jobless even for a single day.
2. *It can not be separated from labourer.* Land and capital can be separated from the owner. They can earn income for the owner even if he is far away e.g. the land or bus

Work may be productive or unproductive e.g. begging, stealing, gambling etc. are work in themselves. So is flattery or sycophancy. However these activities are unproductive. Society has nothing to gain from such work. Similarly so-called peers may earn a lot for themselves but they are unproductive. They live on other people's labour and are economic burden from social point of view.

is in use at Multan while the owner may be in Islamabad. But for labour, the situation is different e.g. a driver in order to do the work of driving at a bus has to be present there.

3. *Less mobile* Labour, generally, is less mobile than capital. Labourers do not readily shift places. Change of profession is also difficult. Whereas, it is easy to buy a taxi from Karachi and use it in Islamabad, it is difficult to make a taxi driver agree to shift to Islamabad. People of one place freely invest capital somewhere else.

4. *Weak bargaining power* Since labour cannot be stored, the labourer does not want to go unemployed. So, compared to the employer, his position to settle the terms of work is weak. Moreover, generally the workers are poorer than the employers. They have no reserve wealth. So they are in urgent need to earn something. Due to this weakness of labour, the employers exploit them and pay lower wages.

5. *Labourer is human being and not a machine* A labourer cannot be treated like a machine, which has no feelings or habits. A worker being a living person needs rest and recreation. If he is not treated properly, he may refuse to work or deliberately do something damaging. If a worker finds a cooperative and friendly atmosphere at the work place, he tries to please his employer by working hard and putting greater efforts.²

6. *Difference in work efficiency* Due to better education, training, experience or motivation, some labourers are more efficient than others.

7. *Difficult to find the cost of production of labour*. Unlike machines, it is difficult to calculate the cost of production of labour. Suppose a doctor with 17 years of education and 10 years of experience examines a patient for a few minutes and charges Rs.1000 as fee. We cannot say what it costs the doctor to provide 10-minute medical advice. Compare it with buying of a chair. If we pay Rs.1000 for this we can know the cost of production of the chair. We can decide if the seller is charging excessive profit.

8. *Labour is active factor*. Labour is an active factor while land and capital are passive. Land and capital can produce goods only when some labour is applied.³ So the management of labour in a factory is more important and difficult than the managing of machines and materials. Productivity (and efficiency) of both land and capital depends upon efficiency of labour. [During 1950's and 60's the economists thought that for rapid economic development of a country, abundance of capital is the most important requirement. But soon they realized that human capital i.e. educated, trained, skilled, motivated and dedicated labour was more important than capital or natural resources. Now in all modern economic planning, key role is allotted to labour i.e. human resources].

9. *Labour creates capital* A labourer works and gets income. If he saves a part of his earning that becomes capital. He can use the saved amount to earn more. So we can say that capital is actually an accumulated form of labour. (Every machine is the product of past human labour — use of muscle power and mental effort.)

10. *Dual Role* Labour is not only a factor of production, it is also the reason⁴ why economic activity takes place. Labourers are consumers and buyers of goods as well.

² A firm cannot buy and own labour in the same way that capital and land can be bought or owned. It is the services of labour which are bought and sold.

³ Something may grow on an idle piece of land. But the produce needs labour to make use of it.

⁴ This universe has been created for humankind. (Al-Quraan)

EFFICIENCY OF LABOUR (OR PRODUCTIVITY)

SOL Efficiency of labour refers to the productive capacity of labour. If a labourer can do more or better work than others, we say that his efficiency or productivity is higher.⁵

Efficiency means one of the following achievements:

- Saving of time* in doing some particular work. For example if a person changes the wheel of a car in 8 minutes while others take 10 minutes, then he is more efficient.
- Producing better quality goods* than others (or performing services more skillfully). For example if a typist makes less mistakes than others, he is efficient.
- Using less amount of raw materials and inputs* for some given quantity of output. For example a person who uses less materials to paint a house is more efficient.

Production of goods is not only affected by size of the labour force and number of hours worked but also by the efficiency of workers. So improving the efficiency of labour is the objective of all firms and countries.⁶

FACTORS INFLUENCING EFFICIENCY

1. Personal Qualities of the Worker

(a) *Racial and hereditary qualities* affect aptitude for work. For example, people of northern mountainous regions of Pakistan are more efficient in doing physical labour.

(b) *Health and Physique* A person with good mental and physical health will be more productive than a weak or sick one.

(c) *Personal qualities* like intelligence, honesty and disciplined habits increase efficiency of a worker. A soft-spoken and well-mannered person can be called more efficient.

(d) *Motivation* If a person feels job satisfaction and gets good salary, he is motivated to work efficiently.

(e) *Education and Training*⁷ make an illiterate and untrained worker more efficient.⁸

(f) *Experience increases efficiency* The proverb "practice makes a man perfect" is a universal truth. An experienced person avoids many problems faced by new workers.

(g) *Standard of Living*. A person enjoying high

Efficiency is a relative concept.

A worker may be more efficient in one kind of work but may be less efficient in some different job. Moreover, efficiency depends upon quality of materials, nature of machines, equipment etc. used by the labour

Education is the key to change and progress.

An experienced lawyer dealing his hundredth case, a doctor doing hundredth operation, an engineer building a hundredth road, a teacher delivering a hundredth lecture, an artist singing his hundredth song, a cook baking his hundredth cake, all have higher efficiency than they had for the first time.

⁵ Productivity of labour refers to the output per worker per unit of time i.e. the average amount of goods or services produced in an hour of work. It is measured as total output divided by the number of hours of labour in a month, then workers' per hour productivity

2000

$$\text{Productivity} = \frac{2000}{100 \times 25 \times 8} = 1 / 10 \text{ TV set}$$

⁶ Living standards rise only when production per person increases.

⁷ Education Increases the capability of a person to understand things around him and learn new technology easily. An educated person tries to organize his work on scientific lines and increase his technical skill.

⁸ Human Capital: A modern tendency among economists is to talk of Human Capital instead of human resources. Human Capital is the education, skills and experience of workers that increase their productivity. Trained labour increases the productive capacity of the economy just like physical capital.

standard of living can acquire better mental and body abilities. His efficiency will be higher than a poor worried person. Working capacity of a person who has his own motor transport to reach his work place will be greater than the other's who waits at bus stop or has a cycle to paddle away.

2. Working conditions and Wage level

(a) *Working environment* affects efficiency. If the work place is spacious, calm and quite, has ventilation, lighting, refreshment and rest facilities, efficiency of labour will be higher.⁹ Too much noise, uncomfortable work seats or overcrowding in workspace make the task of workers difficult.¹⁰

(b) *Division of labour (Specialisation)* When work is split into parts or stages and each worker has to do his part only, productivity per worker increases.¹¹ By concentrating on few tasks people become experts and specialists.¹²

(c) *Machines and Quality of other factors* A worker using better equipment and advanced machinery will produce a greater output. A tailor can prepare more shirts in a given time, if he uses electric sewing machine instead of hand-operated one. An accountant can do more work with a computer.

(d) *Climate* Hot and humid climate has bad effect on efficiency. People of such areas soon become tired and have lower efficiency (e.g. a person working in temperate climate at Islamabad will be more efficient than the person working at Sukkur in June.)

(e) *High wage and good terms of employment* promote efficiency. If employees get a share in profits (or bonus) they increase efficiency. A low paid worker cannot put his heart into the job. Even if he is not feeling well, he will not see a doctor. By prolonging illness, he reduces his work efficiency.

(f) *Good chances of promotion or hope for reward* provide incentive to the workers to work hard and improve productivity. If workers have confidence that benefits will be given on merit, they try to increase their efficiency.

3. Social and Political Conditions

(a) *Social Conditions* If a society gives much weight to caste, creed or sect system, the efficiency of workers will be lower. There is less cooperation between persons belonging to different groups. Due to social barriers, people do not find scope for the best use of their abilities.

(b) *Political stability and peace* People work whole-heartedly only when they feel security and safety for them and their families. Disturbed law and order conditions have

In modern large-scale firms and factories, much attention is given to internal arrangements of work i.e. **division of work**. There are hordes of people like supervisors, officers, managers, directors and executives.. For example, there may be production manager, personnel manager, marketing manager, account officer, etc.

Real wages are related to labour productivity. If productivity grows slowly, the real wage grows slowly

⁹ **Labour Welfare:** During past century the governments have given much attention to the welfare of workers. They have introduced many schemes for social security of labour. In developed countries, large firms also provide welfare services to their employees. Playing fields, social and recreational facilities, canteens, and factory medical facilities are quite common features of big industrial and commercial enterprises. Such provisions contribute towards a happier, healthier, and more efficient labour force.

¹⁰ **Internal organization** at a workplace, such as positioning of machinery and tools, movement of men and materials and sequence of operations affects efficiency of workers.

¹¹ A doctor (general practitioner) who attends every type of patient cannot be as efficient in treating an eye disease as an **eye-specialist** can be.

¹² See supplementary notes at the end of the chapter.

damaging effect for productive work. (A strong reason for low productivity of Pakistani workers is the disturbed political atmosphere and irresponsible statements by so called political leaders).

4. Employer - Employee Relations

(a) *Personal relations* If the employer has friendly relations with the workers and has sympathetic attitude towards their problems, the efficiency of labour will be higher. (A worker, being a human being, does more work for an employer who does not hurt his feelings. If an employer involves workers in decision-making, they try to be more responsible and efficient).

(b) *Trade Unions* cooperative behaviour with the employers, raises labour efficiency. Aggressive attitude of union lowers labour productivity. (In many state enterprises in Pakistan, during 1970-90, militant attitude of union leaders affected productivity of workers).

If we look around in Pakistan, we find that many of the factors, which increase efficiency and productivity of labour are unfavourable. This is the reason that a Japanese or American worker is many times more productive and efficient. This results in poverty not only of the workers but also poverty of the whole nation.

MOBILITY OF LABOUR

Mobility of labour refers to the ability and capacity of a labourer to change over to new job, new position or shift to a different place of work without much difficulty. To achieve high level of economic efficiency, make full utilization of a country's resources and to increase rate of economic development, greater mobility of labour is desirable. Mobility of labour is of five kinds.

- 1. Geographical Mobility.
- 2. Occupational Mobility.
- 3. Horizontal Mobility.
- 4. Vertical Mobility.
- 5. Social Mobility.

1. **Geographical Mobility** means the movement of a worker from one place to some other in search for better wages. If a person migrates from Swat to Lahore or from Pakistan to Saudi Arabia, it will be called geographical mobility.

2. **Occupational Mobility** refers to the changing of profession by a worker to enjoy higher income or a better status or more suitable job. For example, a driver may become clerk or an engineer may become a businessman.

3. **Horizontal Mobility** it means moving from one job to another having similar salary or status, in the same or some other profession. If an accountant of a college joins the passport office in the same capacity, it will be called horizontal mobility.

4. **Vertical Mobility** Through promotion or otherwise shifting from a junior position to a senior position is called vertical mobility. For example, a clerk may become an officer or a teacher may become principal.

5. **Social Mobility** means the movement from one social class or group to another e.g. a factory worker becomes businessman or journalist. A construction worker may become a contractor (*Theke-e-dar*) or a farmer may become lawyer.

Factors of Mobility

Large number of factors affect mobility of labour. The important factors are:

1. *Wage differences* People tend to move from low paid to high paid jobs. The greater is the difference in wages at two jobs, the more attraction will be there for change over to new job.

2. *Condition of work* People prefer to shift to those occupations and jobs where the conditions of work are more favourable. Short working hours, residential and medical facilities, clean and peaceful working atmosphere are the things people want to avail.

3. *Ambition* If the labourer has strong urge to make progress and improve his standard of living, he readily shifts to a new job where prospects are brighter. A village worker who makes a determination to raise the economic status of his family or to provide better educational facilities to his children may shift to some town.

4. *Peace and Security* Mobility of labour will be greater in a country where there is peace and security. A person from Peshawar can shift to Rawalpindi only if he feels that there is peace and he will get security of life and property at new place.

5. *Means of Transport and Communication* play important role in increasing mobility of labour. People do not hesitate to go to distant places if they can easily contact their families. Due to availability of transport, many workers daily come to big cities like Lahore or Rawalpindi.

6. *Education* Educated workers show greater mobility. They easily adjust themselves to changed circumstances and acquire new skills. Moreover, they are generally ambitious and desire to improve their economic and social position. So they do not hesitate to move to unfamiliar places or to a new occupation. Educated people have a wider outlook of life.

7. *Information about job opportunities* Labour mobility increases if information about employment opportunities in various fields is easily available. In this connection, the information provided by employment exchange offices, magazines, newspapers, TV, etc. greatly helps.

8. *Social Set up* Social set up, customs, conventions and traditions also affect mobility. For example in the past, in Indo-Pakistan, caste system did not allow the choice of free occupation. Son was compelled to follow the occupation of his father.¹³

Obstacles The following factors act as obstacles to mobility of labour.

- | | |
|---|---|
| a) Love for relatives, home sickness and social ties | Due to strong family bonds, an employee may refuse promotion which requires shifting to a new place of duty. He sticks to home, friends and social relations. ¹⁴ |
| b) Different climate | A worker from colder region may not want to work in some hot area of Africa |
| c) Different social customs | Different family system and pattern of social life discourages people to go to new places. |
| d) Language barrier | A person may not accept new job for which he is required to learn a different language. |
| e) Inadequate transport facilities | Workers avoid shifting to areas where contact with relatives is difficult due to poor communication facilities. |
| f) Government restrictions | Sometimes the government rules do not allow a person to move to some new job or area |
| g) Illiteracy and ignorance | Due to ignorance, people miss chances of better jobs. |
| h) incompetence and difficulty in learning new skills | This difficulty is especially greater for people who are above middle age. |

¹³ We may expect labour to be most mobile of factors of production. But this is not the case especially in the short run. In the long run however, we find that people move to far off places and quite new occupations. All of the population of USA, Canada, South America, Australia has migrated from Europe and Asia during past three centuries. After Second World War people from South Asia migrated to Europe and America. Still we must note that labour is relatively immobile. Movement of capital across borders is at much wider scale.

¹⁴ Many Pakistanis would not leave family to work in Saudi Arabia.

- i) Lack of capital or long training
- j) War and political disturbances
- k) Caste system, rigid social grouping and tribal thinking
- l) Attitude towards life.
- m) Health
- n) High cost

Importance

Mobility of labour has close relation with productivity of labour and proper utilization of a country's resources. (i) Greater occupational mobility helps to provide **right jobs** for the people. They can choose occupation of their liking and prove more efficient (ii) Vertical mobility provides inducement and **incentive** for people to work harder and improve their skills. (iii) Horizontal mobility reduces chances of **unemployment**. Workers move to places where jobs are available. The chances of overstaffing at one place and jobs lying vacant elsewhere decrease (iv) Geographical mobility helps in balanced development of various **regions**. The resources of different areas are optimally utilized. (v) Social mobility helps to create a **harmonious society**. It reduces tension and bitter feelings among various classes and groups. It promotes unity of the nation.

There are so many advantages of mobility of labour that the governments must take various steps to encourage mobility. The more a country is developed economically, the more mobility of labour will take place. Mobility lends elasticity to the economic system. Disequilibrium between demand and supply of labour anywhere in the economy is quickly removed.

L10C MALTHUSIAN POPULATION THEORY

Population and economic conditions of a country have close link. Population is the (human) basis of economic science. It is the people and their wants, which give economic meanings to material things.¹⁵ It is people who provide supply of labour to produce goods and services. And again it is the people who provide demand for goods as consumers.

Background:

During past centuries many people have discussed the link between population and economic conditions.¹⁶ But it was Thomas Robert Malthus who first of all made a scientific study of the problem. His theory of population got wide popularity and became the most well known one. Malthus studied the conditions around him and the problems arising due to rapid increase in population of England and put forward his theory in 1798¹⁷. He came to the conclusion that by nature the rate of increase of population is faster than the rate of increase of food production.)

In his own words, "By nature, human food increases in a slow arithmetical ratio, while man himself increases in a quick geometrical ratio".

¹⁵ There may be fertile land, water resources, minerals etc. available in abundance in some region of the earth, they will have no economic significance unless some people come to settle there. Human wants and needs will decide which resources are more valuable.

¹⁶ See 'Population Explosion' in the explanatory notes.

¹⁷ He wrote the book "An Essay on the Principles of Population." 1798.

Malthusian theory suggests that if no efforts are made to control the increase in population, the mankind will be caught in trouble.

Malthusian theory has two main parts;

A. Statistical facts about population growth and food

1. Population increases faster than food production. It increases in geometric progression i.e.(1,2,4,8,16,32,...) while food production increases in arithmetic progression i.e.(1,2,3,4,5,...).
2. Uncontrolled population normally doubles in 25 years.
3. Food production is subject to law of diminishing returns. Even if more labour and capital are used, land can produce less additional output.
4. If we start from a position when enough food is available for everyone, after some time (say, 50 years), food supply will definitely fall short of the requirements of rising number of people. When population outstrips food supply, starvation is the result.

B. How to balance population and food supply

Since food supply does not increase as fast as population, some steps are needed to keep balance between the two. In this connection Malthus describes two types of checks.

1. **Preventive checks** are those checks, which are applied by man, that is, late marriages, less children per marriage through restraint and wider use of contraceptives.
2. **Positive checks** are applied by nature. If man does not apply preventive checks, then wars, floods, diseases and famines etc., take place and reduce the population to bring it in balance with the food supply.

Malthus advises that instead of waiting for nature to reduce population to match available supply of food, it is better that human race itself makes efforts to control its numbers

Criticism

Some objections are raised against Malthusian view.¹⁸

1. *Lack of Historical proof* History shows that population of Europe and America did not rise as sharply as predicted. Birth rate has fallen low and the living standard of the people of western countries has gone much higher than envisaged by Malthus.

(The objection is invalid. A deeper study of history actually proves Malthusian view. The birth rate has fallen because people of these countries acted upon his advice and applied preventive checks to control population)

2. *Inaccurate mathematical formula* Population and food supply do not increase according to the mathematical formula suggested by Malthus. Over last two centuries food supply has not increased in a systematic way or in arithmetic progression.¹⁹

¹⁸ Most of the objections are not valid.

¹⁹ In fact, Malthus himself had realized this and had deleted the formula in second edition of his book

186

Very dark future

3. Pessimistic view Malthusian theory gives a pessimistic view of the future of mankind. But God has granted man abundance of natural resources and intelligence. New technologies enable humankind to avoid the fate predicted by Malthus.²⁰

4. The theory is based on the Law of Diminishing Returns But with mechanized farming, application of fertilizers and improved seeds, this law can be postponed.

5. Limited Scope Malthus compared only food production with population and ignored other resources available to a country. Many countries produce insufficient food but they import foodstuffs by exporting other goods. So the more important relationship is not between food supply and population but between population and total wealth of country. [In fact Malthus did not mean to apply the theory to a single country but to the mankind as a whole]

6. Empirical Evidence does not support the theory Demographers show that population depends upon per capita income. When people become accustomed to high living standard, they do not desire large family.

Evaluation Malthusian theory, for the first time, made the world conscious that population should be planned. *His basic observation that under normal circumstances, rate of increase of population is more than the rate of increase of food supply cannot be denied.* Now in every country people and governments are trying to bring down birth rate. This is essential because the death rate has already fallen low. So unless birth rate comes down, trouble is unavoidable. Malthusian theory contains a lot of truth in it. *Most of the objections raised against it are either due to ignorance of what Malthus stressed or are due to narrow interpretation of religious principles by some scholars who do not take into account the statistical facts (and biological) about birth and death rates.*²¹

Malthus never recommended killing of children. He only pointed out that if birth rate remains high, starvation would be the result. (See explanatory note at the end of the chapter). Population can play effective role as a factor of production only if enough natural resources and capital are available to work with. Those people who point out that population of Europe and America is not growing at the rate Malthus had mentioned, are actually supporting his view. Malthus had said that if we are to avoid food shortage, we must bring down birth rate through preventive checks. Developed countries have enough food supply only because they are acting upon his advice.²²

Application of Malthusian Theory in Pakistan

In order to decide whether Malthusian Theory applies to the present conditions in Pakistan or not, we must firstly look into the basic facts of population in Pakistan.

1. Pakistan's total population is 185 million.²³ It is about six times of population in 1947 and it has doubled during past 30 years.²⁴ The rate of increase is 2 %, which is

²⁰ Many countries like Israel and Saudi Arabia have converted deserts to cultivable lands.

²¹ There is a proverb: A little knowledge is a dangerous thing. Example: A verse is generally quoted from the Holy Quran "Don't kill your children for fear of starvation." Here the word 'kill' is quite clear. But it is used to imaginary children who never existed. (They were never conceived by any woman). Suppose the marriage of a person (male or female) takes place at the age of 30 instead of 20 and they have four children in their family life. Can we accuse them that they have killed some children by not marrying earlier?

²² In 1947, Population of England was more than that of Pakistan. Whereas now England's population is less than ½ of ours. They have applied birth control and have saved themselves from trouble of food shortage. In fact, all developed countries are acting upon the Malthusian wisdom. China has controlled population by bringing birth rate very low, so it is progressing by leaps and bounds.

²³ Economic Survey 2013

²⁴ 1 crore = 10 million.

higher compared to world average. In 1960, Pakistan's population was 1/2 that of Japan. Now we are much ahead of it. (Thanks to our social attitude).

2. *Pakistan falls among the poorest countries of the world.*²⁵
3. Birth rate is high while *death rate has fallen low*. So population is growing fast.
4. *Health* of our people is poor. They are suffering from diseases because they get insufficient food and poor health care.
5. *Shortage* of housing, water supply, electricity and poor transport and sanitary conditions facilities is our permanent problem. This shows that population is growing faster than what we can manage.
6. *Literacy rate* in Pakistan is only 58%. 1/3 of our children are still out of school.²⁶
7. Wide spread unemployment and underemployment indicates signs of overpopulation. Working population is only 33%.
8. Time and again serious *shortages appear in the supply of essential commodities* such as wheat, sugar, fuel and cement etc.
9. *Inflation* rate is high, which also shows demand for goods exceeds supply.
10. There is all round deterioration in environment. Air and water are polluted. Water shortage is becoming a permanent problem. Trees have been cruelly cut from hills and natural forests. *Wild life* and natural beauty is disappearing.²⁷ In many ways the balance between man and nature is being destroyed.

Pakistan, over past half century, has made lot of development. Yet living standard of majority of our people has improved little. Poverty, misery and food deficiency can be seen all around. There is social, political and economic unrest. It is not difficult to realize that rate of growth of our population is not sustainable. Thus Malthusian theory is quite applicable in Pakistan's situation.

If we want to avoid positive checks of nature such as famines, earthquakes, floods, diseases, social disturbances and accidents to reduce the number of people, we must ourselves adopt preventive checks to bring down birth rate. If we fail to control birth rate, one day, our population will exceed that of America which has area 10 times of Pakistan. Feeding this population will be difficult. Then ultimately nature will have to restore the balance through famines or diseases. But it is better if we ourselves, as rational human beings, try to achieve balance between our natural resources and population without waiting for the day nature's hand restores this inevitable balance.

OPTIMUM THEORY OF POPULATION

The optimum theory of population was given by Cannan. Earlier, the economists were dissatisfied with the Malthusian theory of population which compared only food availability and population growth. Malthusian theory explained only a general fact that population grows faster than food supply, but it is of little help to formulate a definite population policy for a country. The optimum theory is better in the sense that it tells what level of population a country should try to maintain.

²⁵ Our birth rate is double that of USA while death rate is almost equal (See notes)

²⁶ Pakistan is among the countries who spend lowest percentage of GNP on education i.e. 2 % (Economic Survey 2013). The percentage, instead of increasing, has decreased.

²⁷ Man himself is multiplying while all other creatures of nature are being destroyed to make room for increasing human numbers. No doubt man is super creature of God, but how this super creature will exist if other lower creatures are denied space on earth.

Optimum population refers to the best desirable and ideal size of population which a country should have. Optimum population, when combined with currently available natural resources, capital stock and technology, ensures the highest possible per capita income for the people. Rising of population above or falling below the optimum level will decrease per capita income.

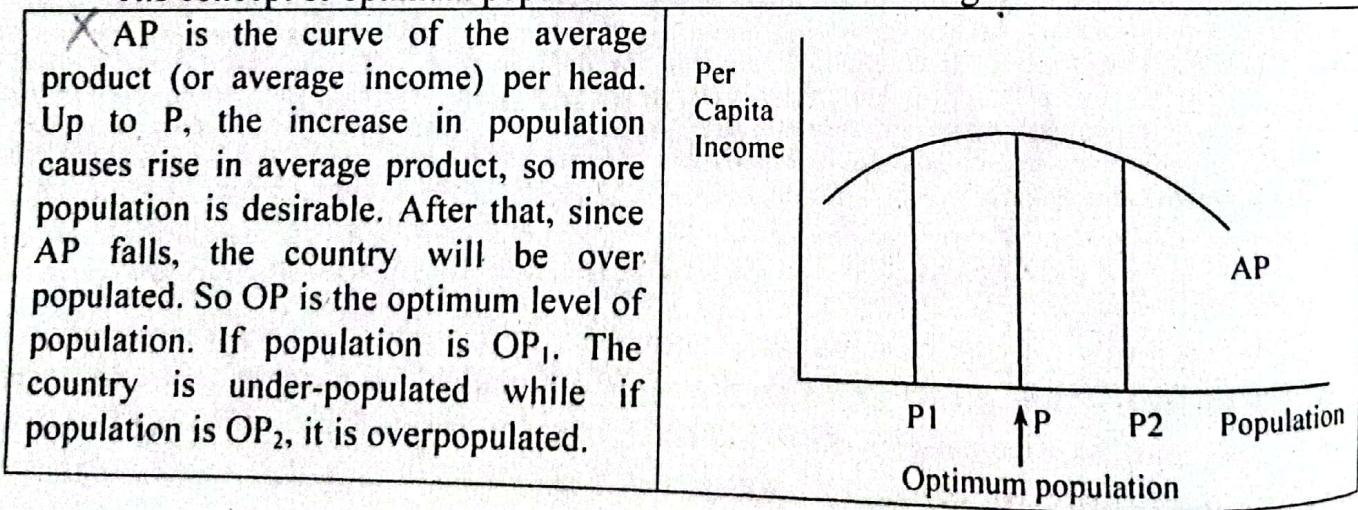
Determination of the optimum size of population. A country can face three possible situations.

- (a) over populated
- (b) under populated
- (c) ideally populated.

Over population is indicated if increase in population causes fall in per capita income. Such a country must take steps to control population growth. **Under population** is indicated if increase in population can raise per capita income. To properly utilize the country's resources more persons are needed. A country is **ideally populated** (or **optimally populated**) if both increase and decrease of population create negative effect on the level of per capita income.

According to optimum theory, the **ideal population does not mean a fixed size**. It changes with discovery of new resources, improvement in techniques of production, advancement in knowledge, efficiency and skills of human labour. For instance, let us assume that to start with, a country has 100 million people and this number is optimum in the sense that per capita income is the highest possible. Now suppose, the technology advances and the country is able to provide irrigation to vast areas of new lands. In order to bring additional land under cultivation and expand the economy, more people will be needed. If population increases by 10 million and per capita rises to the maximum, then the new optimum population is 110 million. Thus, the point of optimum population has moved upward. Similarly when due to increase in capital stock and automation in production methods less people can produce more goods, the optimum point may come down.²⁸

The concept of optimum population is illustrated in the figure.



²⁸ In words of Cannan: "At any given time, increase of labour up to a certain point is attended by increasing proportionate returns and beyond that point further increase of labour is attended by diminishing proportionate returns. Thus, per capita income is the highest at point where the average product of labour starts falling. The point of maximum returns is the point of optimum population."

Evaluation

- (A) Optimum theory is considered superior for the following reasons.
- Malthusian theory is a general study of population problems. The optimum theory depends upon the economic conditions of a particular country.
 - Malthus had narrow vision. He related the growth of population to food supply only.
 - It is difficult to make a practical (dynamic) *population policy* on the basis of Malthusian theory. According to optimum theory, neither increase nor decrease in population is itself undesirable. Population should be managed according to the availability of resources.
 - Malthus gave a dark picture about future of mankind. Optimum theory does not create unnecessary fear.
 - unlike Malthus who stressed the biological fact about human birth rate and food production, optimum population theory includes economic factors.

(B) Drawbacks

- It is difficult to know where is the optimum level of population.
- Techniques of production and stock of capital keep on changing. New resources may be discovered any time. It means the country will have to decide the level of correct population frequently. But to change population is not an easy task like building of a road.
- In countries like Pakistan, the data on per capita income is inadequate and misleading. It is difficult to correctly measure per capita income and locate the optimum point.
- The theory neglects social conditions. It takes into consideration only economic factors. But the question of population or, for that matter, the question of number of children in a family has deep social, psychological and biological implications.

Conclusion Going through the various aspects of the theory of optimum population we come to realize that a country must have some planning about its human resources. But this planning will be quite broad, general and long run. Any rigid target of population cannot be and should not be fixed.

Pakistan and the Optimum Theory According to this theory, it appears that with current resources and technology, our population is above optimum level. If our population had been somewhat less, our per capita income would be higher.

~~H-N~~ PROBLEMS OF OVERPOPULATION *Mcols*

Human labour, like land and capital, is a factor of production. Thus the quantity and quality of human resources (working population with its skills and abilities) have close link with the production performance of an economy. But an interesting and important fact about human labour is that it has a **dual role in economic life** i.e. on one side it is used in production of goods and on the other, all production is meant for humans. People are not only producers but also consumers.²⁹ Thus whereas more land and capital resources are desirable, we can not make similar simple conclusion about

²⁹ Mankind is the end product of this universe (Al-Quran)

190

population. More population may be desirable because it provides more workers. But it may be undesirable because a large quantity of goods will be needed to feed, clothe and maintain increasing population. According to Malthusian theory of population, it is just natural that countries get overpopulated. The rate of population growth is higher than the rate of increase of food supply. It is actually happening in many countries of the world. They make plans to increase their national output. But by the time these plans are implemented, population has also risen. Thus, such countries are caught in a trap. Their efforts to raise living standard of the people are bearing little fruit. Pakistan is one such country. India, Indonesia and most of Africa and Latin America are facing the problem of over-population. Now it is widely realized the world over, that unless population growth is brought under control, people will remain poor. Over population is, in fact, the root cause which gives rise to many economic and social problems. Some of these are:

1. *Shortage of food* is cause of starvation or malnutrition of our people.
2. *Housing facilities* for growing numbers.
3. *Overcrowded cities* Absence of civic facilities, slums, traffic mess, water shortage and poor drainage make life miserable for majority of city dwellers.
4. *Diseases* Due to food shortage and lack of proper healthcare disease is widespread. This lowers the productivity of labour.
5. *Low Saving and investment* Since majority is poor and consumes most of their incomes, little is saved for capital formation.
6. *Unemployment* In the light of such problems, it becomes necessary that population should be controlled. Most countries of Asia and Africa including Pakistan are in urgent need for bringing down birth rate.
7. *Increase in crime rate*. When young generation does not find jobs and is denied basic necessities of life, it is attracted towards unlawful activities.
8. *Deterioration in environment* deteriorates quality of life.

POPULATION AND ITS PROBLEMS IN PAKISTAN

Pakistan, at the beginning of twenty-first century, is in a very critical and interesting situation. If we handle the situation carefully, a bright prosperous future awaits us. But there is also the possibility that if we do not analyze our problems objectively and adopt appropriate policies; we may be left behind other nations in the world. One of the important problems that needs our attention is the problem of over-population. This problem is multi-dimensional i.e. it is not only an economic problem but also has socio-political and religious aspects. Population has a dual nature. On the one side it means a group of human beings who need goods for consumption and on the other, population is a kind of economic resource. It is the source and supplier of manpower which produces goods. In order to fully evaluate the nature of population problem in Pakistan, let us first look at some data.

Year	Population (Millions)
1947	32
1981	85
2000	140
2013	185

Pakistan's total population has reached 185 million.³⁰ Working population is only 33%. The remaining 67% do not work and are dependent upon others' incomes. This non-working population consists of children, old people, non-working women and social

³⁰ Economic Survey 2013. 51% of the population is male. Majority of population lives in villages. Only 38% is in cities. Agriculture employs 45% of total population. The literacy rate is only 58%.

parasites like beggars, *big lanatoras*, touts etc. Children below the age of 15, form 35% of our population. The most important aspect of our population is its high growth rate. Since independence our population has increased six times.

The present economic and social conditions indicate that Pakistan is definitely over populated. Following points support this view.

1. *Our per capita income* is very low.³¹ Countries like USA and Japan have more than 30 times of our income. In spite of some economic development poverty continues as ever.

2. *Cultivated area per head* has fallen to less than one half over the past decades. Small area (i.e. less than 1/2 acre per head) cannot supply enough food and materials to maintain population. With rising population, pressure on agriculture land is increasing.

3. *Rate of increase of population is 2 %*, which compared to most other countries is high. Dependency ratio is also high.

4. In spite of rapid increase in educational institutions, *literacy rate* is only 58%. Total number of illiterate children is more than what there were 20 years ago.

A person is not often job according to their education

5. *Unemployment and underemployment* are widespread. New jobs are not being created to match the increasing numbers.

6. *Overcrowded cities* Most people have unsatisfactory water, sanitation and *housing facilities*. Public transport is inadequate. Scenes of people stuffing wagons like animals or riding on top of buses are common.

7. Due to *inadequate food supply* and unhygienic conditions and poor healthcare, people suffer from various diseases. There productivity is low.

8. Rapidly rising population is consuming most of the increase in incomes. Little is left over to invest. *Less investment* means slow development and continuity of poverty.

9. Because of low domestic savings, we have to depend on *foreign loans*. Pakistan has accumulated huge foreign debt.³² Its servicing consumes major part of govt. budget.

10. *Inflation* is playing havoc with common man's life. Demand for goods is rising fast while supply is not matching it.

11. Death rate has fallen fast³³ but birth rate is falling slowly. Average age in Pakistan has risen but quality of life for majority is not improving.³⁴

12. Fast growing population and widespread poverty is causing unrest and *political disturbances*. Due to frustration and uncertain economic future, students are not serious about studies. Political leaders exploit the increasing difficulties of the masses.

13. An important cause of wide spread corruption and bribery in all departments of government is overpopulation. Admissions, jobs, electricity connections are not available on merit. So corruption is the result.

³¹ According to Pakistan Economic Survey 2013, per capita income was \$1368 (provisional).

³² Foreign debt has risen above \$61 and is 35 % of Pakistan's GDP.

³³ It is 7 per thousand or about 0.7%.

³⁴ Average age (life expectancy) has risen to 66 years.

The Solution

In the light of the above observations, it is not difficult to conclude that Pakistan is in the grip of population explosion. To secure a good future for our people, population problem must be solved. We can adopt *two courses of action* to achieve the objective.

- (a) **Control through population planning.**
- (b) **Rapid increase in agricultural and industrial production** to raise per capita income.

The most important part of the population policy would be to reduce birth rate. Death rate has already fallen, so unless birth rate comes down, we are bound to be caught up in 'population explosion'. A systematic program of population planning is the solution.

In this connection the following steps are suggested

- Increasing literacy rate; since educated couples like fewer children.
- Spreading female education; since it reduces many superstitions of women about family planning.
- Increasing employment opportunities for the poor to increase their living standard.
- Provision of social security and old age benefits. Many people expand family since they expect that children will help them in old age.
- Late marriages, so that there are fewer children per marriage.
- Using safe contraceptives which modern science and technology has provided.
- Popularizing the idea of small family and publicizing the miseries of large families.
- Removing religious and medical misunderstandings of people about birth control.
- Improving the status of women, so that they are not considered simply as childbearing machines.
- Discouraging child marriage
- Providing education, advice and facilities about family planning in clinics.
- Providing incentives for small family through tax concessions.

Two principal ways in which human labour becomes human capital are formal education and on-the-job training.

LABOUR FORCE

Total size of working population of a country along with their productive abilities is called labour force. It is estimated by excluding children, old people and other dependents from the total population. A country's prosperity or the level of national income depends upon the strength, efficiency, and employment rate of labour force.³⁵ A look at the economic position of various countries on the globe reveals that the poverty of a nation or under-development of a country, in most cases, is not because of lack of natural resources but because of poor quality of its human resources. Nature has gifted every region with various kinds of resources. Some, like Pakistan and USA have abundant agricultural land; some have huge mineral deposits like Saudi Arabia while some have excellent location like Egypt and Singapore. But for utilization

³⁵ Supply of labour in a country depends upon labour force. Supply of labour is the measure of hours of work offered by workers different wage rates over some given period of time.

of the natural resources, the role of labour force is of prime importance. In economics, labour force of a country is studied from *three points of view*.

- (i) Labour force - population ratio.
- (ii) Rate of employment of labour force.
- (iii) Efficiency with respect to age, skills and residence etc.

(i) **The labour force - population ratio is called participation rate.** This rate indicates what part of population is working and percentage is dependent upon others' incomes. Pakistan's participation rate is 33%. This is quite low as compared to other countries. In most of the developed countries, the participation is above 50%. It means we have too many dependants. These include children, very old persons, non-working women and voluntary idle people like feudal lords, beggars, peers, insane people etc.

The participation rate is higher for rural population because children start work from early age. Again the participation rate is higher for males than for females. One of the important reasons for lower female participation in labour force is that women working as housewives are not counted as labourers. So their work is ignored (Pity!).³⁶ In fact a housewife's work is no less important than that of a woman attending some office.

A higher *participation rate* is desirable since it means more working hands and less dependants. So the governments try to increase the proportion of working population. With the spread of education, training, change in work-attitude of women and desire for higher standard of living for the family, the proportion of labour force in total population rises.

Ratio of non-workers to workers
is called dependency ratio.
Compared to developed countries
this ratio is very high in Pakistan.

(ii) **Pakistan's total labour force**, estimated for the year 2013, is 58 million. The distribution in different sectors of the economy is as shown below:

Table 8.1 Distribution of Employed Labour Force in Pakistan 2013

Sector	labour employed%
Agriculture	45
Manufacturing	14
Transport	6
Construction	7
Trade and Commerce	16
Finance, Services and others	12
Total	100

The table shows that nearly half of our labour force is employed in agriculture alone. This is a clear sign of under-development of Pakistan economy. In USA only 3% labour force is engaged in agriculture.³⁷ But it is so productive that the agricultural production of USA is the largest in the world. They feed not only their own people but also export to countries like Pakistan.

³⁶ The present definition of working women shows ostrich like attitude of economists and statisticians; that if they can not measure the work of housewives, they ignore it. We cannot contribute to this approach. In Islamic countries there will always remain a good percentage of women who will not work outside their homes. Bringing up of children and taking care of the family, while remaining at home, is no less important than working in offices and factories. Thus under the present system of national accounting our participation rate will always be underestimated. This is inadequacy of statistical methods and not a drawback of women working at homes.

³⁷ For comparison see notes at the end of the chapter.

Unemployed and underemployed labour force means wastage of human resources. Unemployment also creates social and political unrest. In Pakistan, open unemployment rate is around 8% (and if concealed (disguised) unemployment and underemployment is included it is not less than 12%). Measures like rapid industrialization and promotion of small-scale industry can help to reduce unemployment. Decrease in growth rate of population has also positive effect on employment situation.

(iii) Labour force is a heterogeneous group of people. In Pakistan, on the one side, we find people who are highly trained, experienced and specialists in their fields. But on the other side there is high percentage of illiterate and unskilled population, which limits the productive potential of labour force. Thus we need to give more attention to skill formation through literacy and vocational training. When more people get technical education, national output will go up. Efficiency of labour force depends upon use of machines and other forms of capital. So we must accumulate capital.

Another factor needs attention. There are large number of women who have nothing to do. Our social and economic system is such that job opportunities for these women are very limited. Through female education and skills, change in social values, motivation and various other schemes, we can bring more women in the working group.

A summary of problems faced by Pakistani labour force is as follows:

- | | |
|--|--------------------------|
| (i) Poverty (root cause of many problems) | (ii) Unemployment |
| (iii) Low productivity and efficiency | (iv) Low wages |
| (v) Unsatisfactory working conditions | (vi) Lack of mobility |
| (vii) Unorganized labour (lack of trade unions) | (viii) Low social status |
| (ix) Social insecurity (no protection against unemployment, disease, etc). | |

Table 8.2. Labour Force and Employment Estimate for 2013

Total population	185 million
Working age population (Age 15-65)	115 million
Labour force	58 million
Employed labour force	54 million
Unemployed labour force	4 million
Open rate of unemployment	6 %
Disguised unemployment/underemployment	12 %
Labour force participation rate (% of labour force in total population)	33 %

UNEMPLOYMENT IN PAKISTAN

(L10) *H.W.* *56kis*
Unemployment³⁸ and inflation are the two most disturbing economic problems of the modern world. This is also true of Pakistan.

One of the major and permanent economic problems faced by Pakistan is widespread unemployment and underemployment.

Unemployment is the situation where an able-bodied person seeks a job but is unable to find one at current wage rate.³⁹

Underemployment is the situation when either (i) a labourer has job not matching with his education and training level or (ii) he has only part-time job although he wants full-time work.

Existence of unemployment⁴⁰ and underemployment indicates imbalance between demand and supply of labour. Unemployment causes wastage of a country's human resources. It is not only lack of income for the individual and country but also is the root cause of many social and political problems. The unemployed, besides losing income, will suffer from boredom, depression, family tensions, divorces, violence and tendency towards crime. The present situation in Pakistan is that out of 185 million population, our labour force is 58 million. Out of this, 4 million are totally unemployed while about 6 million are partially employed. The rate of open unemployment does not appear to be too high but a large part of unemployment is concealed (which is called disguised unemployment). In Pakistan, all unemployed persons are not recorded.

The unemployment problem in Pakistan has many aspects and special features. There are different categories of unemployment.⁴¹

(i) Unemployment of unskilled or semi-skilled (ii) Rural unemployment.

(iii) Unemployment of educated young

(iv) Unemployment of women (v) Industrial unemployment (vi) Temporary or seasonal unemployment⁴²

Employment Situation 2013 (Million)	
Labour force	58
Employed	54
Unemployed	4

³⁸ According to Labour Surveys, the 'employed' means all those persons of ten years of age and above who worked at least one hour during the reference period and were either 'paid employed' or 'self employed'

³⁹ There are some persons in society who are *not called unemployed* although they may appear to be. These include children, full time students, retired people, too old persons, disabled, housewives, peers and *malang*-type individuals who either cannot work or do not want to work. These groups are dependent for their living upon the work and earnings of other people

⁴⁰ **Unemployment Rate** is expressed as percentage of labour force

$$\text{U} = \frac{\text{Number of unemployed}}{\text{Labour Force}} \times 100$$

⁴¹ Types of unemployment. See Notes

⁴² **Causes:** There are three broad groups of causes (i) **Natural rate of unemployment.** Due to various reasons, no country can achieve 100 % employment. There always exists a minimum rate of unemployment which is around 3 - 4 %. It is called natural rate of unemployment. This inevitable unemployment occurs because some people, are searching employment. They are new young men and women entering job market. There is some structural unemployment which occurs because some old industries are dying e.g. handloom weavers, tonga wallas, cartmen, village blacksmith etc. have to shift to new jobs. Some people are unemployed due to seasonal nature of their work (ii) **Demand-deficient unemployment.** This occurs because either there is depression in the economy, or because development of industry and other sectors of economy is slower than the rate of increase of population. Aggregate demand may also fall due to political disturbances and loadshedding, factories may close down. Govt. may also decrease its expenditure (iii) **Excessive-wage unemployment.** When workers are demanding too high real wages, there will be unemployment (See explanatory notes).

CAUSES

1. Poverty *Poverty and unemployment are twins.* A poor person has fewer chances of finding employment or creating self-employment. And on the other hand, poverty is the destiny of unemployed. Since poverty is widespread in Pakistan, so the result is unemployment. People don't have resources to set up some business or industry.

2. Rapid Population Growth Pakistan's population is growing fast at 2% rate which is one of the highest in the world. About a million new people are entering the job market each year. On the other side, expansion in the employment opportunities is not enough to absorb all the new job seekers.

3. Scarcity of Capital Capital is needed to put people to work. Employment opportunities cannot be expanded unless tools, equipment and materials are available in sufficient quantity. But there is serious shortage of capital in Pakistan. Capital is created through investment. However, due to our limited saving capacity,⁴³ rate of investment remains low.

4. Mechanization of Agriculture and Automation in Manufacturing is also a cause. Rural population is getting unemployed. A tractor and tube well displaces scores of people. Surplus agricultural labour seeks employment in urban centers. In industries, the use of automatic machinery and computers reduce need for workers.

5. Slow Industrial Development Due to various economic, social and political reasons industrial progress is slow. Enough jobs are not created to absorb surplus labour. Loans are misused. Instead of establishing industries. People get loans written off through political influence.

6. Imbalance in Education Most of the students opt for general education. They want to get some white-collar job in an office. They are not interested in vocational training. The result is that when they leave educational institutions, they have degrees but no work training.

7. Capital Intensive Industries Modern large and medium-size industries are capital intensive i.e. they need huge funds, but fewer human hands.

8. Biased Attitude for Public Sector Employment Government job has more prestige than a similar job in private sector. People prefer to become an office clerk than to work as a private electrician. But government cannot employ every job seeker.⁴⁴

9. Seasonal unemployment occurs in agriculture and some other industries like fan and air-cooler industry.

10. Continued depression of our economy is another cause of unemployment.

REMEDIES

1. Population Control This is the single most important method to reduce unemployment. Slow growth of population reduces the number of job seekers. Spread of education, popularization of the concept of small family and improvement in status of women should be adopted to reduce birth rate.

⁴³ Domestic saving rate is 9% of GDP which is very low. (National saving rate and fixed investment in Pakistan is just 13 % of GDP)— Economic Survey 2013.

⁴⁴ In Pakistan, Government service means less effort, security of service, more chances for corruption and misuse of power. Private jobs demand more labour and involve risk.

2. Capital Formation is basic requirement for economic development. To increase capital accumulation, savings should be encouraged. Foreign capital also helps to undertake new projects.

3. Rapid Industrial Growth Capacity of agriculture to absorb labour is limited. Final solution for unemployment lies in slow population growth as well as rapid expansion of industry.

4. Small Scale Industries are more labour intensive, so in industrial policy, development of such industries should be encouraged.

5. Technical Training and Skill Formation should be given special attention in development strategy.

6. Self-employment Through suitable financial schemes, self-employment be encouraged in the form of small business, workshops, clinics etc.

8. Diversification of Agriculture Instead of concentrating on formal crops, activities allied to agriculture should be expanded e.g. dairy, poultry, fish and bee farms, processing of foods.

9. Change in Social Attitudes People's attitude towards work and manual labour needs change. Manual labour is given due respect, People would not hesitate to adopt it.

10. Government Policy Various government programs like Khushal Pakistan and People's Works Program help to create large number of jobs because they concentrate on small projects. SMEDA (Small and medium enterprises development authority) was established to promote small business and increase employment opportunities.

In order to encourage self-employment in youth, Self Employment Scheme and Youth Investment Promotion Society were established. Internship for highly qualified persons had been introduced. Various institutions for training and providing apprenticeship are working. Migration of labour to other countries is also encouraged. National Manpower Commission is working for properly utilizing labour force.

SUPPLEMENTARY NOTES

➤ **Social Factors and Productivity of Labour** Some decades ago, the economists thought that the main reason for low productivity of workers in under-developed countries was that they used less capital in the form of modern machinery, and equipment. They did not give much weight to social factors. Now, the key role played by the social conditions in which the labour works is universally recognized. Along with physical capital, human capital has assumed as much importance. Social values and practices in a country deeply affect the quality and performance of human resources. A favorable social atmosphere, supporting and promoting a sense of human dignity increases productivity. On the other hand, a society supporting social biases or prejudices of caste, race, tribe, region or religion, acts as obstacle in application of their best abilities.

A social system

- where people's efforts are not fairly rewarded
- where injustice prevails
- which allows hatred towards working class
- which gives more respect to wealth or hereditary positions
- where leadership lies with corrupt but influential persons
- where economic benefits depend on political influence
has a disastrous effect on productivity of labour.