

## **POPULATION AND LABOUR ECONOMICS**

### **POPULATION ECONOMICS**

**Population** refers to the total number of people living in a given area during a specified period of time.

### **TERMS USED UNDER POPULATION**

#### **1. Birth rate (crude birth rate)**

This refers to the number of children born alive in a year per thousand of the population. It is expressed as a percentage.

$$\text{Crude Birth Rate (CBR)} = \frac{\text{Number of live born babies}}{1000} \times 100$$

#### **Determinants of birth rate**

- Level of education
- Cultural status
- Food supply
- Level of technology for example family planning methods being used.
- Natural female fertility rate.
- Government policy on population growth.

#### **2. Death rate (Crude Birth Rate)**

This refers to the number of deaths in a year per thousand of the population. It is expressed as a percentage.

$$\text{Crude Death Rate (CDR)} = \frac{\text{Number of deaths}}{1000} \times 100$$

#### **Determinants of death rate**

- Food supply
- Political climate
- Level of income of individuals
- Level of medical care
- Rate of natural hazards or epidemics for example Ebola, AIDS and cholera.

### 3. **Fertility rate**

This refers to the number of children a woman can bear in her reproductive age/ life usually 15 to 45 years.

#### **Determinants of fertility rates in developing countries**

- Health standards
- Demand for children
- Cost of living
- Socio-economic status
- Level of education

#### **Causes of high fertility rate in developing countries**

##### **a) The economic value of children**

Some communities attach great importance to the number of children in a family. This is because children are source of labour and provide security to their parents later in their old age.

##### **b) Customs and traditions.**

In some communities, children are sources of pride, pleasure and respect to the parents. A wife who bears many children is regarded as the ideal wife. Fertility rates are therefore high in a community with such an attitude to children and women

##### **c) Low cost of raising children**

The cost of raising children in some societies is lower than benefits realized from them. Costs of raising children in such societies are low because food is plentifully available and government meets the cost of education and medical care. Thus the burden of raising children is not so much felt by the parents thus encouraging them to produce more.

##### **d) Early marriage.**

Women in developing countries tend to marry when they are still young usually at the age of 15 or less. The child bearing period of up to 49 years of age is therefore very high.

##### **e) Limited access to education by women**

The majority of women in developing countries have limited access to education thus limiting their role in society to provision of labour to family tasks and child bearing.

##### **f) Absence of government commitment to control fertility.**

Fertility rates are high due to government failure to punish families for having many children. This contrasts sharply with countries where governments use positive and negative sanctions to influence family size such as in china and India.

g) **Increased health and life expectancy of mothers**

Education and health services have increased the life expectancy of child bearing mothers through reduced maternal mortality rates thereby increasing fertility rates.

4. **Life expectancy**

This is the time period normally in years that a baby is expected to live after it has been born.

5. **Mortality rate**

This is the number of people who die before their life expectancy is over.

In many developing countries, the mortality rate has fallen because of improved economic and hygienic conditions, availability of modern medicine and better medical and education which have been provided to the people by the government.

6. **Migration**

This refers to the movement of people from one area to another in a given time.

7. **Immigration**

This refers to the movement of people which involves entering and settling into the country.

8. **Emigration**

This refers to the movement of people which involves moving out of the country to settle in other countries.

**Factors which influence migration of people**

- 🌐 Imbalances in resource distribution among regions and countries.
- 🌐 Differences in levels of development between regions and countries.
- 🌐 Difference in incomes and wages between regions.
- 🌐 Political instabilities like wars and change of regimes.
- 🌐 Educational requirements where people are forced to go to other countries to acquire education.
- 🌐 Differences in climatic conditions which may be favourable or unfavourable.
- 🌐 Diseases which may affect certain regions thereby pushing people to other countries.

9. **Population increase**

This is the rise in the number of people living in an area over time.

Population grows in two ways i.e. naturally or artificially.

Thus population increase can also be defined as the growth in population size either naturally (birth rate exceeds death rate) or by artificial increase by way of net migration;

#### 10. Population growth rate

Population growth rate refers to the annual percentage increase in the number of people living in area overtime.

There are two kinds of population growth rates i.e.

##### a) Natural population growth rate (NPGR)

This is the rate of increase of the population size over a given period due to interplay of birth rates and death rates.

$$NPGR = \frac{\text{birth rate} - \text{Death rate}}{1000} \times 100$$

##### b) Artificial population growth rate (APGR)

This is the rate of change of the population resulting from the interplay of immigration and emigration rates.

$$APGR = \frac{\text{Immigration rate} - \text{emmigration rate}}{1000} \times 100$$

#### Determinants of population growth rate

- 🌐 Birth rate/ fertility rate
- 🌐 Death rate/ mortality rate
- 🌐 The net international migration

#### 11. Population projection

This is an estimation of the future population size basing on the current population size and population growth rate.

#### 12. Demography:

This is the study of the population structure and its composition in terms of age, sex, education levels etc.

#### 13. Population census

This is the physical counting of people in the country after a given period of time.

In Uganda, the population census is normally carried out after every 10 years.

## **REASONS FOR CARRYING OUT A POPULATION CENSUS**

- a) **To enable the calculation of per capita income so as to indicate the standard of living.** The per capita income is the ratio of the total income to the total population of a country.
- b) **To establish the size of a country's population so as to facilitate planning.** For example planning for employment, housing and educational facilities requires accurate population figures.
- c) **To establish the distribution of the population.** This focuses on age, gender (sex), level of education and spatial distribution. This enables the government to allocate resources appropriately in the country.
- d) **To establish the quality of a country's population.** This mainly focuses on the level of education and the health status of the people in a country. This aids man power planning in a country.
- e) **To establish the size of the labour force.** The government wishes to find out the number of people ready for employment such that it puts in place a conducive environment to ensure that the jobs are available.
- f) **To determine the natural population growth rate.** This is through computing the number of live births per 1000 and population and the number of deaths per 1000 population so as to find out whether the population is increasing or not.
- g) **To establish the rate of migration/ to determine the artificial population growth rate.** An increase in the number of immigrants with a fall in the number of emigrants represents an increase in in the artificial population growth rate.
- h) **To solicit for foreign aid.** This is through presenting the population statistics to international aid agencies or friendly countries. The aid agencies like USAID, IMF, World Bank and IDA always request for population figures to determine the area/ sector and the amount of aid to be given.
- i) **To establish the number of nationals and non-nationals in a country.** This is to help the government design appropriate policies on ownership of property, work permits and immigration.

- j) **To obtain population figures to demarcate political units like constituencies, town councils, municipal councils and town boards.** The decision to accord any of the above statutes depends on the existing size of the population.

#### 14. Population density

This is the number of people per unit area of land for example per square kilometer.

#### 15. Population explosion

This is the sudden rapid sharp increase in population of an area over time such that existing resources become too inadequate to support the population.

##### **Effects of population explosion**

- Leads to over exploitation of resources.
- Leads to food shortages
- Leads to land shortages
- Leads to increased dependence burden.
- Leads to increased poverty.
- Worsens balance of payments position.
- Leads to environmental degradation.
- Leads to increased income inequalities.
- Leads to demand pull inflation.
- Unemployment is increased.
- Distorts government projected planning.

#### 16. Dependence burden

The dependence burden refers to the section of the population that is below 16 years and above 64 years which is economically unproductive and thus reliant on the working population for survival.

##### **Negative effects of a high dependence burden**

- 🌐 Low savings
- 🌐 Underutilization of resources
- 🌐 Heavy burden on government to provide social services
- 🌐 Low productivity in the economy
- 🌐 Low labour supply

#### 17. Dependence ratio.

The dependence ratio is the ratio of the dependents to the total population.

$$\text{Dependence ratio} = \frac{\text{Number of dependents}}{\text{working population}}$$

### **Example**

Given that the working population in a country is 12,000,000, the young population is 14,000,000 and the elderly population is 4,000,000, calculate the country's dependency ratio.

### **Solution**

$$\begin{aligned} \text{Dependence ratio} &= \frac{\text{Number of dependents}}{\text{working population}} \\ &= \frac{18,000,000}{12,000,000} \\ &= \frac{3}{2} \\ &= \underline{\underline{3:2}} \end{aligned}$$

### **THE STRCUTURE OF UGANDA'S POPULATION**

1. It is dominated by the young who constitute about 40% of the population.
2. The population is mainly rural based. That is approximately 80% of the population lives in rural areas.
3. Majority of the population is semi-skilled and unskilled.
4. The productive force of the population is mainly engaged in primary production.
5. The population growth rate is high. Uganda is one of the countries with the highest population growth rate in the world. It is about 3.4% per annum.
6. A big proportion of the population lives below the international poverty line. About 35% of Ugandans live below the international poverty line i.e. they live on less than one dollar a day.
7. There are high illiteracy levels among the population. About 32% of Ugandans do not know how to read and write.
8. There are more females than males in the population. That is generally about 51% females and 49% males.
9. The population is unevenly distributed. For example Kampala has 7360 people / km<sup>2</sup> while Moroto has 20 people / km<sup>2</sup>.
10. Mainly engaged in primary production. The productive force of the population is mainly engaged in primary production especially agriculture.

## **ECONOMIC IMPLICATIONS OF UGANDA'S POPULATION STRUCTURE**

### **POSITIVE IMPLICATIONS**

1. **High market potential** due to the high population growth rate. The steadily growing population provides a large market potential.
2. **High potential for labour force** due to high population growth rate. There is a possibility for the provision of cheap labour because many people are unskilled and semi-skilled.
3. **Potential for massive future investment** because of the dominant young population.
4. **High tax potential.** This is due to the high population growth rate that provides labour force to be taxed by the government.
5. **It initiates efforts to work harder** to sustain the pre-dominantly dependent population.
6. **The government is awakened to its responsibilities** of providing necessary infrastructure and this leads to increase in output.
7. **The young are usually innovative and creative.** This gives room for new discoveries leading to technological progress.
8. **High potential for increased resource utilization.** The increase in population is a stimulus to development by providing a challenge to the investors and the government.
9. **Reduction in per capita social overhead costs.** The high population growth rate reduces per capita social overhead costs for instance reduction in the cost of providing infrastructure.
10. **Encourages labour mobility.** The high population growth rate forces the skilled and unskilled labour to search for better opportunities either within the country or outside the country in order to earn a living.

### **NEGATIVE IMPLICATIONS**

1. **Low labour productivity.** This arises due to the fact that a big portion of the population is semi-skilled or unskilled which reduces the size of national income.
2. **High dependence burden thereby limiting savings.** This is due to the dominance of the young age group that strains the working population.
3. **Results into unemployment and underemployment.** This is because of the high population growth rate that results in excess labour supply compared to job openings.
4. **Limited domestic market/ low effective demand.** This is because many live on less than a dollar a day implying that they are very poor and are not able to buy many goods and services which scare away investors.



5. **External resource dependence** for example on foreign man-power. The population of Uganda is mainly semi-skilled and this Uganda relies on expatriates in different fields leading to higher foreign exchange expenditure.
6. **Worsens balance of payments problems.** This is because the high population growth rate leads to increase in import requirements to supplement domestic supply.
7. **Effective planning for the population becomes difficult.** The steadily rising population makes it difficult for the government to make long term plans. This is arises because economic planners fail to accurately predict the population size over the years to set realistic development objectives and targets.
8. **High government expenditure on provision of services.** High population growth rates require massive investments in social and economic infrastructure like in education, health, transport and housing. This results into budgetary deficits and declining quality of service delivery.
9. **Environmental destruction.** High population growth rates have devastating effects on the environment. For Uganda's case, a high population size has caused over use of land, forests, hillsides and swamps especially in city centres like Kampala, Jinja, Mukono and other areas. There are also high social costs in form of pollution and congestion.
10. **It results into brain drain.** The structure of Uganda's population reveals that a big size of the population is unemployed and this forces many skilled people to seek for alternative employment in other countries.
11. **High rates of rural – urban migration with its negative consequences** like prostitution, high crime rates and congestion. This is due to the high population growth rates in rural areas that cause poor living conditions in such areas.
12. **Quick depletion of resources** due to their over exploitation.
13. **Perpetuates income inequality.** In Uganda, the middle income group owns the means of production and distribution whose demand continues to grow with increasing population. Consequently, the middle income group continues achieving rising standard of living whereas the majority of population does not.

## POPULATION THEORIES

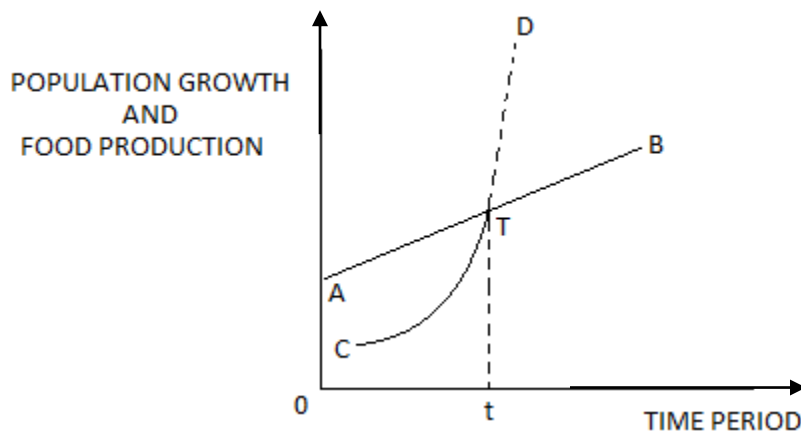
### THE MALTHUSIAN POPULATION THEORY

The theory was advanced by a British economist known as Rev. Robert Thomas Malthus in the 18<sup>th</sup> century and it explains the relationship between population growth and food production.

Malthusian population theory states that whereas population grows at a geometric rate, food production tended to grow at an arithmetic rate.

Malthus stated that due to the above trend; population growth after a time would equal food production (population trap) and further outstrip it, and after such a time, there was need to control population growth through preventive (negative) checks like moral restraint, celibacy among others, otherwise positive checks like pestilence, wars, diseases among others would serve to reduce the population.

#### Illustration of Malthusian population theory



T is the population trap

ATP is food production

CTB is population growth

#### NOTE

🌐 *The population trap is the point in time according to Malthusian theory at which population growth is equal to food supply/ growth.*

- 🌐 *Positive checks are those which reduce the birth rates by increasing death rates e.g. famine, diseases, earth quakes, floods, wars, malnutrition etc.*
- 🌐 *Negative (preventive) checks are those which reduce the population growth rate by reducing birth rates e.g. late marriages, family planning, discouraging polygamy, celibacy etc.*

### **ASSUMPTIONS OF THE THEORY**

- Assumes a closed economy.
- Assumes constant technology applied to food production.
- Land is fixed in supply and subject to the law of diminishing returns.
- Food grows at an arithmetic rate.
- Population increases at a geometric rate.
- Population growth depends on only food supply.
- Assumes subsistence food production.

### **RELEVANCE/ APPLICABILITY OF THE THEORY TO DEVELOPING COUTRIES**

To a smaller extent, the Malthusian population theory is relevant/ applicable to developing countries in the following ways.

1. Land supply being fixed and subject to the law of diminishing returns is what is being experienced and Malthus predicted this situation.
2. Natural family planning methods (control measures) like celibacy are being used. These control measures are his initiation.
3. The positive checks on population as predicted by Malthus exist in LDCs today e.g. wars, epidemics etc.
4. Land problems/ disputes are common issues in LDCs.
5. Some areas of LDCs are facing food shortage/ famine e.g. Karamoja region 2012, Teso 2009 in Uganda.
6. Existence of a subsistence sector which is still large.

### **LIMITATIONS OF THE THEORY**

To a greater extent, the Malthusian population theory is irrelevant to developing economies reasons being that;

1. It assumes constant technology which is unrealistic since technology is ever changing.
2. It assumes a closed economy yet economies of most LDCs are open economies/ it ignores the role of international trade.
3. Agricultural modernization is not foreseen by the theory yet this is taking place in most LDCs.
4. It did not foresee labour mobility to reduce pressure on land.
5. Population does not depend on food alone.
6. The theory is based on the subsistence economy yet LDCs' economies are not predominantly subsistence any longer.
7. The theory did not foresee great improvement in transport i.e. transportation of food from areas of plenty to areas of scarcity.
8. It did not foresee the possibility of getting foreign aid/ resources from other countries.
9. There is no mathematical relation as regards growth in food and population.
10. The theory ignored the deliberate and scientific methods of birth control (modern family planning methods) e.g. use of pills, condoms, etc.
11. The theory did not realize that rising living standards can cause a fall in birth rates and population.
12. It ignored the possibility of emigration to ease pressure on resources.
13. Malthus was influenced by the law of diminishing returns which is not always true.

## **THE CONCEPT OF UNDER POPULATION, OPTIMUM POPULATION AND OVER POPULATION**

### **UNDER POPULATION**

Under population is the population size that supplies inadequate labour force relative to the existing co-operant factors leading to low average product.

#### **Merits of under population**

- It protects the country's resources from over exploitation
- Reduces the level of inflation because there is reduced aggregate demand.
- Leads to creation of more employment opportunities for the available labour force.
- It may lead to equity in income distribution if majority of the people are employed.

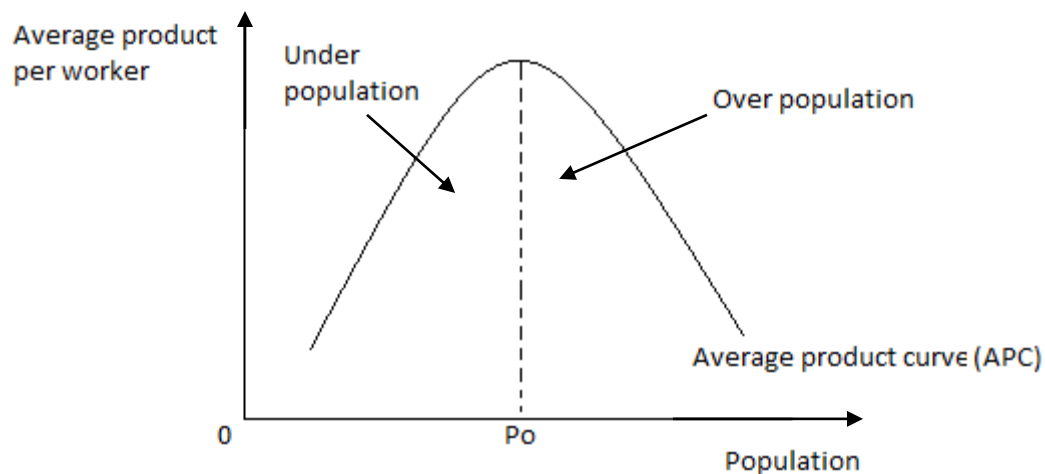
### **Disadvantages of under population**

- 🌐 Leads to limited/ small market size.
- 🌐 Results into limited labour supply.
- 🌐 Leads to low output hence low economic growth rate.
- 🌐 Leads to low tax revenue.
- 🌐 Results into low level of innovations and inventions.
- 🌐 Results into underutilization of natural resources.
- 🌐 Leads to high average cost of providing social infrastructure.
- 🌐 Leads to low levels of investment.
- 🌐 Leads to limited specialisation.
- 🌐 Leads to a weak national defence.

### **OPTIMUM POPULATION**

Optimum population is the right size of the population (ideal population size) that provides labour force which when combined with other factors of production yields maximum output per worker.

#### **Illustration of optimum population**



Where  $OP_o$  is **optimum population**

#### **Determinants of optimum population**

- The level of savings
- The level of technology.
- The level of natural resource base.
- The available stock of capital.
- The size of the population/ amount of labour supply.

### **Indicators of optimum population**

- Maximum utilisation of resources
- High level of employment
- More equitable distribution of income.
- Maximum output per worker.
- Limited dependence or expenditure on imports.

## **OVER POPULATION**

Over population refers to a population size where there are more people relative to the existing resources leading to falling average output as the population increases.

### **CAUSES OF HIGH POPULATION GROWTH RATE IN DEVELOPING COUNTRIES**

1. **Early marriage among the youth.** Many people marry and produce children early in life say before the age of 21 years. This results in rapid population growth in developing countries.
2. **Reduced civil wars and natural calamities.** These results in rapid population growth in developing countries as the peaceful environment forces people to produce more children.
3. **Cultural or traditional tendencies that encourage large families.** In some cultures, children are regarded as sources of pleasure and pride to parents. Parents therefore produce very many children in order to fulfill these traditional mores.
4. **High polygamy rate in society especially among Muslims.** This results in rapid population growth in developing countries among the polygamous communities.
5. **High poverty rate among the population.** Many people produce children in order to have old age social security later in life whereby children provide for the needs of their parents in old age.

- 6. High level of prostitution.** Many people have loose sex with several partners resulting in production of many sometimes unwanted children hence fast growth of the population.
- 7. Low level of literacy and inferiority complex of some women.** Some women believe that they are valuable only for their reproductive functions and they can best retain their spouses by producing many children in polygamous families for example wives compete amongst themselves as to who would out-do the other in producing many children. This results in fast growth of the population.
- 8. Limited family planning programmes in rural areas.** Many people are ignorant of family planning methods; both their availability and benefits. Those that are aware of their existence and benefits cannot afford to use them. This has resulted in limited use of contraceptives hence high birth rate and high population growth rate.
- 9. Decline in death rates due to improved health care.** Improved medical care through effective public health programmes at all levels such as establishment of medical facilities, vaccination and health awareness has reduced death rates resulting in fast rate of population growth.
- 10. High rate of immigration to developing countries due to insecurities in other countries.**  
Due to political instabilities and limited economic opportunities in some countries, people migrate to other countries leading to rapid population increase in the recipient countries.
- 11. High rates of pregnancies among the unmarried due to rape and fornication.** Due to the high level of adventurism among the unmarried, there is fornication resulting in high rates of pregnancies hence high population growth rates.
- 12. High infant mortality rates.** Due to high infant mortality rates, many people produce very many children as security against child mortality so that as others die, others remain. Sometimes all the children survive mortality resulting in high population growth rates.
- 13. Low cost of raising children.** The cost of raising children in some societies is low due to availability of food cheaply and state provision of merit goods like education and health at heavily subsidised rates. Since child upbringing is not very burdensome to parents, they do not see need to restrain their fertility.

## **IMPLICATIONS OF A HIGH POPULATION GROWTH RATE IN UGANDA**

### **POSITIVE**

1. **High market potential.** This is due to increase in effective demand by the growing population.
2. **High tax potential.** This is due to increased investment, labour force and consumer demand that provide more tax revenue to the government.
3. **High potential for labour force.** This is because of the increase in labour supply associated with the growing population.
4. **High potential for increased resource utilisation.** This is due to the high level of investment required to meet the increasing consumer demand hence increased use of idle resources.
5. **Potential for massive future investment.** This is due to the increased consumer demand.
6. **Government is awakened to its responsibilities of providing the necessary infrastructure.** This leads to increase in output.
7. **The young population is usually innovative and creative.** This is due to the increase in the level of competition that results into more discoveries.
8. **It reduces per capita social overhead costs.** This is because the infrastructure in form of schools, hospitals and roads is maximumly utilised.
9. **Initiates efforts to work harder to sustain the predominantly young population.** This is because the working population strives to meet the demands of the dependents.
10. **High mobility of labour** due to increased population pressure.

### **NEGATIVE IMPLICATIONS**

1. **Leads to unemployment and underemployment.** This is due to the excess labour supply arising from the high population growth rate.
2. **Leads to high rates of rural – urban migration and its negative effects like prostitution, high crime rate and congestion.** This is due to the poor working conditions in the rural areas.
3. **Leads to high social costs in form of pollution, accidents, congestion and sanitary problems.** This is due to the increase in the number of people living in different areas.



4. **Causes income inequality.** This is due to the increase in poverty levels especially in rural areas.
5. **Leads to high government expenditure on provision of social services.** This is due to increased demand for social facilities by the dependent population.
6. **Leads to high dependence burden.** This is due to the large number of young people that depend on the working population.
7. **Worsens the balance of payments problems.** This is due to the high level of importation to meet the demands of the population.
8. **Leads to quick depletion of resources.** This is due to their over exploitation to meet the rising demand of the population.
9. **It makes effective government planning for the population difficult.** This is due to the high birth rates.
10. **It increases external resource dependence.** This is due to increased reliance of foreign aid, foreign manpower and foreign technology to meet the needs of the increasing population.
11. **Leads to limited domestic market.** This is due to the high level of poverty especially in rural areas.
12. **It increases brain drain.** This is due to the high levels of unemployment that forces highly skilled labour to look for better opportunities in other countries.
13. **It leads to low labour productivity.** This is due to the increase in the number of unskilled and semi-skilled labour force.
14. **It overstrains the available infrastructure like schools and hospital.** This is because the increasing population demands for social services like education and health care.
15. **Leads to low income per capita** resulting in poor standard of living.
16. **Leads to low capital accumulation** due to low savings.
17. **Leads to low investment** due to high level of consumption that limits funds set aside for investment.
18. **It may lead to inflation** due to high demand for goods and services.

## **AN INCREASING POPULATION**

### **POSTIVE IMPLICATIONS OF AN INCREASING POPULATION**

1. It provides a wider and growing market potential for goods and services produced in a country.
2. It provides a high potential for labour force required especially in the agricultural sector, industrial sector and defence.
3. An increasing population is an incentive for massive future investment due to increased demand for goods and services.
4. An increasing population leads to increased government revenue through taxation on personal income.
5. An increasing population initiates effort to work harder to sustain the predominantly dependent population.
6. Government is awakened to its responsibility of providing necessary infrastructure such as schools, hospitals.
7. Competition among the young increases pressure on development effort through inventions and innovations.
8. An increasing population reduces per capital social overhead costs in a country in form of infrastructure.
9. An increasing population provides a high potential for increased resource utilisation hence increased level of output.

### **NEGATIVE IMPLICATIONS OF AN INCREASING POPULATION**

1. An increasing population leads to low labour productivity especially in the agricultural sector due to the principle of diminishing marginal returns.
2. It leads to increased dependence burden on the small working population which leads to low savings, low level of capital accumulation and low level of investment.
3. It leads to unemployment and underemployment as the public and private sectors are not in position to create enough employment opportunities to match with the increasing population.
4. It leads to balance of payments problems due to increased import requirements to supplement domestic supply of goods.

5. The available social and economic infrastructure in form of schools, hospitals, housing are overstrained.
6. It leads to increased government expenditure on provision of social services such as education and health care.
7. It leads to increased rates of rural – urban migration and its related problems of rural stagnation, open urban unemployment and development of slums in urban centres.
8. Its leads to quick depletion of resources due to their over exploitation by the people.
9. It leads to brain drain a problem that robs a country of her productive labour.
10. Effective economic planning for the population becomes difficult due to limited resources.
11. It leads to limited domestic market due to low income per capita.

### **Assignment**

Why is there a need to control the population growth rates in developing countries?

### **DECLINING/ DECREASING/ SHRINKING POPULATION**

This refers to a situation where the population size is falling due to need to keep families small and due to emigration. It is common in developed counties where the birth rate is very low e.g. Britain, France, Germany, etc.

### **ECONOMIC CONSEQUENCES OF A SHRINKING POPULATION**

#### **NEGATIVE CONSEQUENCES**

1. **Reduction in the size of the labour force.** A shrinking population is usually characterized by a high percentage of the elderly and the old. This age group is largely unproductive in the economy. Therefore a shrinking population may lead to a reduction in the size of the labour force and consequently a reduction in the productive potential of that population.
2. **Decline in the level of investment.** The level of investment falls due to inability of the market to sustain productive industries. Some of the existing industries may collapse and close down.
3. **Huge expenditures on the old people.** A shrinking population is characterized by a large percentage of the old people and thus a lot of money and other resources are spent in form of pensions to the old, social health conditions and providing health care.

4. **A fall in output per capita.** Unless there is technological advancement to take up the jobs that are being done by labour, output per capita is likely to fall.
5. **It leads to a fall in aggregate demand for goods and services in the economy.** The demand for goods and services decreases due to reduction in the number of consumers.
6. **It reduces the government tax revenue derived from taxes imposed on incomes of the people.**
7. **It reduces competition among the workers.** This leads to inefficiency in production.
8. **It discourages geographical labour mobility.** This is because workers are not pressure to look for employment in other areas.

#### **POSITIVE CONSEQUENCES**

1. **It reduces pressure on land and other natural resources.** This minimizes the diminishing returns associated with land and environmental degradation.
2. **Reduced pressure on government to provide social infrastructure, education and health services** since the number of people requiring the services is falling.
3. **It reduces the dependence burden on the working group.** This improves the standard of living and capital accumulation in the country.
4. **It helps a country to acquire the optimum level of resource allocation.** This is true in case the economy is over populated.
5. **It reduces on the problem of unemployment in the economy.** This is because labour supply reduces as the population declines and therefore the remaining labour force is in position to get employment.
6. **It encourages savings due to reduced dependence burden.** This helps to break the vicious cycle of poverty as a result of increased investments and incomes.
7. **It encourages proper planning in the economy.** The government is in position to match the population of the country with the available resources.
8. **It reduces congestion and rural – urban migration.** This helps to control open – urban unemployment in the economy.
9. **It reduces on the social and political unrests in the economy.**
10. **It helps to check on inflationary tendencies and shortage of goods and services in the economy.** This is because of reduced aggregate demand due to declining population.

## **AN AGING POPULATION**

People in the age group of 65 years and above are referred to as the **aged population**.

An aging population is due to;

- 🌐 A fall in birth rate due to improved medical services.
- 🌐 Improved nutrition and balanced diet
- 🌐 Improvement in technology.
- 🌐 Low death rates.

## **PROBLEMS ASSOCIATED WITH AN AGING POPULATION**

1. **Declining output per capita.** Output per person declines as people become older because people's capacity to contribute to output declines with age.
2. **Declining labour supply.** Labour supply in an aging population declines as more people retire from work due to old age and poor health associated with old age.
3. **It increases government expenditure** in terms of pensions and other retirement benefits to the old plus increased costs of providing medical care for treating diseases associated with old age e.g. high blood pressure.
4. **High levels of conservatism.** There arise in the population a large number of people who find it difficult to learn new industrial techniques arising out of technological progress.
5. **Limited mobility of labour.** Labour mobility is low because the old find it hard to adapt to new changes and are also reluctant to move to new areas.
6. **Rising dependence burden.** Where much of the population is made up of the elderly, the burden on the working population and the government to provide support to the elderly is high.
7. **Low levels of innovations and inventions.** The level of innovations and inventions declines largely because the aged are not reluctant to accept new ideas nor are they willing to innovate new ideas of their own due to fear of uncertainties.
8. **Limited market due** to declining demand for consumer goods and services.
9. **Low levels of investment.** The level of investment becomes low because the aged are reluctant to take risks of investments for fear of incurring losses that may wipe out all their life savings.

**MEASURES THAT SHOULD BE TAKEN TO CHECK POPULATION GROWTH**  
**RATES IN UGANDA**

1. **Health facilities should be improved.** Child health should be improved through establishment of medical facilities throughout the country and through mass immunization against killer diseases. This may reduce parents demand for many children for security purposes.
2. **Family planning should be encouraged.** Efforts should be made through mass media campaigns to encourage family planning especially the use of contraceptives so as to avoid unnecessary pregnancies.
3. **Encouraging women to participate in political and economic activities.** This can be done by giving women a head start in numerous political offices in the country and by extending loans to women. The economic empowerment of women can enable women to make rational decisions concerning their bodies and to increase the opportunity cost of child bearing.
4. **Education of women should be encouraged.** The education of the girl child and women in general should be encouraged for example by giving women additional points when selecting students for entry into higher institutions of learning. This can keep women longer in schools and reduce their child bearing ages.
5. **The population should be sensitised of the dangers of large families.** People through the mass media should be sensitised of the dangers of having large families such as inadequate resources and time to look after children effectively. This can encourage parents to choose small families instead of large families.
6. **The minimum marriage age and defilement laws should be enforced.** Persons indulging in sexual relations when they are below the age of 18 should be subjected to judicial penalties. This can delay the age at which a person becomes a parent for the first time and reduce the fertility rate.
7. **Monetisation of the economy should be encouraged.** The economy should be monetised and subsistence production should be discouraged through provision of markets for farm produce and provision of loans to farmers. Monetisation of the economy can increase the cost of raising children and may discourage parents from having large families.

## **FACTORS LIMITING POPULATION GROWTH CONTROL POLICIES IN UGANDA**

- High levels of poverty/ low income among Ugandans.
- Limited supply of skilled labour/ family planning experts are few
- Poor infrastructure limits information flow.
- Religious opposition, contradicting teachings (Islam and Christianity against family planning)
- Conservatism due to rigidity in cultural norms.
- Over dependence on agriculture.
- Low cost of living in the country especially in rural areas.
- High levels of corruption
- Poor government policy on population control.
- Political unrests in some parts of the country.
- Early marriages.

## **LABOUR ECONOMIES**

Labour refers to any human effort whether physical or mental that is utilised in the production process.

### **Characteristics of Uganda's labour force**

- Mainly youthful.
- Slightly more females than males.
- Mainly employed in the primary sector
- Mainly semi-skilled and unskilled.
- Mainly rural based
- Many are employed in the public sector
- Many are unemployed and underemployed
- Majority of the population is not unionized.
- Some are poorly deployed to occupations which do not match their skills.s

### **Determinants of the size of labour force**

- Size of the population
- Number of full time students/ length of training period
- Health status of the population.
- Government policy in terms of employment age/ age structure
- Social customs/ number of full time housewives.

## **WAGES**

### **Meaning**

A wage is a monetary reward or payment to labour for its contribution towards the production of goods and services.

### **Types of wages**

#### **1. Nominal wage**

Is a wage expressed in monetary terms for example Euros, Shillings or dollars.

#### **2. Real wage**

A real wage is the quantity of goods and services that a nominal wage can purchase. words, it  
OR

It is the purchasing power of a nominal wage.

### **Determinants of the real wage**

- Size of the nominal wage
- Level of taxes
- Amount of goods and services available
- General price level
- Size of the monetary/ subsistence sector.

#### **3. Basic wage**

This is a wage earned by a worker after removing all the allowances and medical benefits.

#### **4. Minimum wage**

A minimum wage is a wage set by the government above the equilibrium wage and it becomes illegal to employ and pay workers below it.



## **5. Subsistence wage**

This is a reward to labour that is just enough to enable him meet the basic human needs.

OR

It is a minimum payment to a worker to induce him to hard work but not afford any luxury of life.

## **6. Living wage**

This is a payment to a worker sufficient to provide basic needs.

OR

It is a reward that is adequate for a worker and family to subsist comfortably.

## **7. Reserve wage.**

This is the minimum/ lowest wage a worker is willing to accept below which he does not work.

### **Other concepts related to wages**

#### **1. Wage freeze**

This is a government policy of legally holding wages at their current rates for a given period of time mainly to control inflation.

#### **2. Wage drift**

This is where piece rate earners negotiate with their employers for more allowances apart from the basic wage.

#### **3. Wage restraint**

This is the government policy of appealing to employers and trade unions to voluntarily restrict wage increases for a given period of time in order to check inflation.

### **WAGE DETERMINATION**

Wages can be determined through the following ways;

#### **1. Employers setting the wages for the workers**

The employer sets a wage at which to pay workers depending on his will and ability to pay the wage. Employers with a strong ability and willingness to pay offer high wages to the workers while employers with a low ability and willingness to pay offer low wages to the workers.

#### **2. Individual bargaining**

Wages are determined by the individual worker bargaining with his or her employer for an acceptable wage rate. A worker with strong bargaining power earns more wages than a worker with low bargaining power who is paid low wages.

**3. Collective bargaining.**

Trade unions determine wages through round table negotiations for wages with employers. Strong trade unions are able to demand for higher wages for their members compared to weak trade unions with a low bargaining power.

**4. Piece rate method.**

Wages are determined by the quantity of output produced. The more the work done by the worker, the higher the wages and a small amount of work done leads to earning low wages.

**5. Time rate method.**

Wages are determined according to the duration spent at work. The more the time spent at work, the higher the wages and the less the time spent at work, the lower the wages.

**6. Market forces of demand and supply of labour.**

The wage rate is determined through the interactive forces of demand for labour and supply for labour till the equilibrium market wage is determined.

In a situation where the demand for labour is more than the labour supply, wages tend to be high and where labour supply is more than the demand for labour, low wages are paid to the workers.

**7. Government policy of wage determination**

Government determines wages by either setting a minimum wage above the equilibrium wage rate below which it becomes illegal to pay workers or by setting a maximum wage below the equilibrium wage rate above which it becomes illegal to pay workers.

Government also determines wages for civil servants using a historical salary scale where workers are graded such that the top civil servants are paid high wages compared to the low cadre staff.

### **WAGE LEGISLATION**

This is the government policy of fixing wages that is either maximum wage set below equilibrium wage above which it is illegal pay workers or minimum wage set above the equilibrium wage below which it is illegal pay workers.

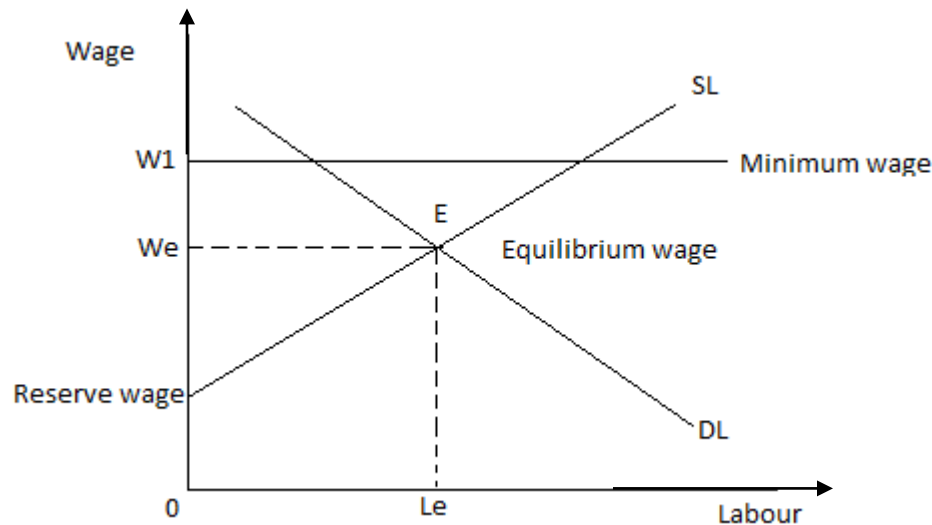
a) **Minimum wage legislation**

This is the government policy of fixing a wage rate below the equilibrium wage above which it is illegal to employ and pay workers.

The result of minimum price legislation is a **minimum wage**.

A **minimum wage** is one set by the government above the equilibrium/ ruling market wage and it is illegal to pay workers below it.

Illustration of a minimum wage



Reasons for setting up a minimum price

1. **To enable workers meet rising cost of living.** Minimum wage legislation is undertaken to enable workers to cope with the rising cost of living caused primarily by rising levels of inflation.
2. **To reduce brain drain.** This applies especially when the minimum wage is higher than either the market wages or legislated wages in the neighbouring countries. Workers would thus find no economic motivation to go to work in other countries where wages are lower than the ones offered at home.
3. **To reduce exploitation of the workers by employers.** Minimum wage legislation reduces workers' exploitation by the employer since the employer is not allowed to pay workers less than the minimum wage.

4. **To ensure industrial peace.** Minimum wage legislation reduces workers' strikes for increased wages since workers are aware that they are paid wages which are higher than rates determined by market forces of demand and supply of labour.
5. **To expand the demand for goods and services.** Minimum wage legislation increases the purchasing power of workers hence increased demand leading to increased standard of living of the workers.
6. **To encourage labour mobility.** Minimum wage legislation is aimed at increasing inter-sectoral mobility of labour say from the private to the public sector.
7. **To fight corruption or bribery among workers.** Minimum wage legislation aims at reducing malpractices such as theft and embezzlement especially if the minimum wage provides for workers' basic needs of life.
8. **To increase labour productivity or efficiency.** Minimum wage legislation enables workers to save and investment and this increases the productivity of the economy.
9. **To ensure fair distribution of income or wealth between different sectors and regions.** Minimum wage legislation reduces wage differences between occupations in order to forge equity in income distribution.
10. **For political support.** Minimum wage legislation aims at winning political support from the workers who may fear a change of government because change of political leaders may put into power leaders who are not sensitive to workers' welfare.
11. **To encourage savings or capital accumulation by the workers.** Minimum wage legislation increases the level of savings and investment in an economy thus increasing output.
12. **To attract labour force by reducing voluntary unemployment.** Minimum wage legislation is aimed at attracting labour from other sectors of the economy into the public sector.
13. **To reduce labour instability such as moonlighting** (A situation in a worker holds more than one job simultaneously in order to make ends meet). Minimum wage legislation aims at making labour force more stable as it avoids problems of labour instability such as absenteeism and moonlighting in order to make a living.
14. **To prevent rural – urban migration** since wages will be similar both in rural and urban areas.

**Demerits/ costs of a high minimum wage**

1. **It leads to technological unemployment.** High wages force employers to replace labour with machines due to excessive demand for a high wage.
2. **It leads to rural – urban migration and its negative effects.** Minimum wage legislation causes imbalances in income gap between rural and urban centres since formal employment which benefits from minimum wage legislation is urban-based. This leads to influx of labourers from rural areas to urban areas in quest for high wage employment.
3. **It leads to demand pull inflation.** High minimum wage leads to increased aggregate demand leading to inflation if increased wages do not lead to corresponding increase in output of consumer goods and services.
4. **It worsens the problem of income inequality when it is not implemented in all sectors.** High minimum wage increases income disparities between wage and non-wage earners because prices for products in the informal and agricultural sectors are low leading to low earnings for workers in these sectors.
5. **Discourages investment.** It scares both the foreign and domestic investors because of high costs of production due to high wages given to employees thereby reducing the profitability of entrepreneurs.
6. **It decreases profit margins of employers because of the high wages given to employees.** This hinders firm expansion.
7. **Leads to high government expenditure to ensure its success** for instance subsidising firms, monitoring and supervising firms to ensure that workers are not paid below the legislated wage hence straining the government budget.
8. **Leads to excess supply of labour in relation to its demand** due to attractive wage

**Reasons why governments in developing countries are reluctant to set a minimum wage**

1. Fear of excess supply of labour in relation to demand.
2. Fear of increased cost of production that may result due to high labour costs.
3. To avoid technological unemployment.
4. To avoid worsening the income gap when not equitably implemented.
5. To avoid rural – urban migration and its demerits.
6. Fear of inflationary tendencies, that is, cost push, wage price and demand pull inflation.
7. To avoid discouraging investment.

8. Fear of causing low entrepreneurship due to lowering of profit margins.
9. Fear of high costs to the government to enforce e.g. monitoring, supervision, subsidization of firms, implementing the policy.

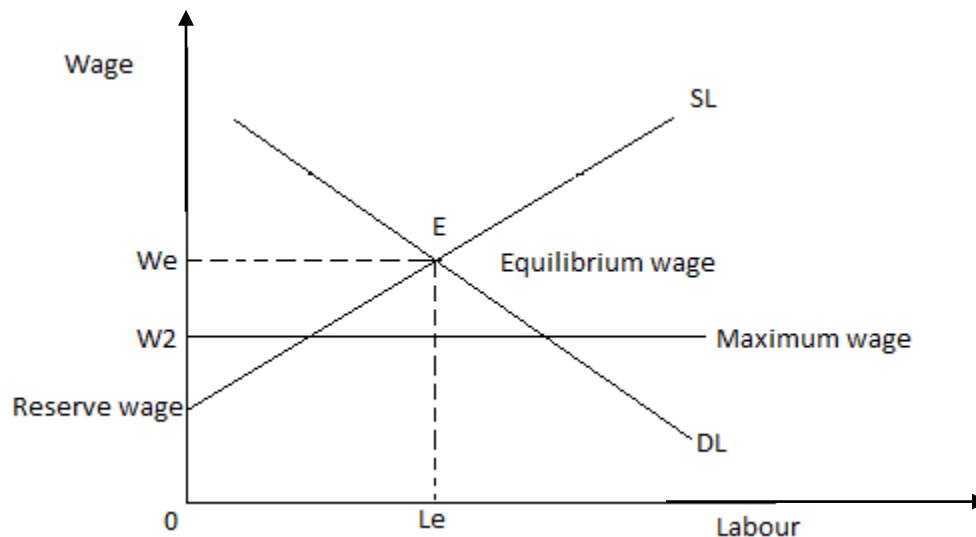
b) **Maximum wage legislation**

This is the government policy of fixing a wage rate below the equilibrium wage above which it is illegal to pay workers.

The result of maximum wage legislation is a **maximum wage**.

A **maximum wage** is a wage set by the government below the equilibrium wage rate above which it is illegal to pay workers.

Illustration of a maximum wage



## EFFECTS OF MAXIMUM WAGE LEGISLATION IN A MARKET ECONOMY

### POSITIVE EFFECTS

- Encourages investment.
- Makes labour cheap and affordable.
- Controls demand pull inflation
- Creates equity in income distribution
- Controls a boom.
- Minimises labour unrest
- Makes government popular.

## **NEGATIVE EFFECTS**

- Leads to brain drain
- Causes voluntary unemployment
- Depresses consumption leading to economic depression or stagnation.
- Causes unpopularity of the government.

## **METHODS/ MODES OF WAGE PAYMENT**

### **1. Piece rate method.**

Is a method/system of paying wages according to the quantity/ amount of output produced.

#### **Merits of the piece rate method**

1. Promotes team spirit among workers leading to increased productivity.
2. Faster workers earn more wages than slow/ lazy workers which minimises cheating in the payment of wages.
3. Dull and slow workers are stimulated to work hard in order to earn high wages.
4. Encourages innovativeness among workers so as to produce a large output of goods and services to earn high wages.
5. There is easy calculation of wages because output is measurable.
6. It eliminates the need for constant supervision of the workers leading to reduced costs of production.
7. It helps employers in identification of suitable workers by enabling them to remove the lazy ones and maintain workers who put in more effort.
8. It saves time/ tasks are completed faster since the system encourages hard work among the workers.
9. It minimizes industrial unrests because it limits conflicts/ disagreements over payment.
10. Protects employers from falsified payments since wages are directly related to the level of output.
11. Higher output is realized because workers are encouraged to produce more so as to earn high wages. Increase in output leads to reduction in the cost per unit of a fixed factor of production employed.

12. Employers easily forecast output to be produced by the workers and this enables them to put aside the necessary amount of money for wage payment, that is, it simplifies employers' costing calculations.
13. Workers do work at their own pace thereby reducing overstraining

### **Demerits**

1. Workers tend to overwork themselves to earn high wages and this negatively affects their health.
2. It is difficult to negotiate for a national wage by trade unions.
3. Variations in piece rates from one place to another undermine trade unions solidarity.
4. It undermines trade union solidarity because of variations in piece rates from one place to another and due to conflicts between the hard working workers and the slow workers.
5. There is production of poor quality output due to hurrying in a bid to produce more output and earn a higher wage.
6. Slow but careful and efficient workers are discouraged since they produce low output levels and good quality output in a long time that earns them low wages.
7. When a worker falls sick/ genuinely misses work, he is not paid for the days missed. This causes wage/ income instability.
8. Leads to high risks of accidents because workers try to increase the speed of work for higher output so as to earn higher wages.
9. Leads to over production due to high output rates resulting into wastage of resources.
10. Hard working people are resented by the slow workers leading to conflicts and income inequality.
11. Workers may resist being transferred from one form of work where they have acquired more experience to another.

### **2. Time rate method**

This is a method/ system of paying wages according to the duration spent at work/ number of hours worked for. For example per hour, day, week, month, etc.

The system involves “clocking in” and “clocking out”.



### **Merits of the time rate method**

1. It is easy to understand and calculate by both parties i.e. the employer and the employee.
2. A worker is assured of a regular and defined payment even in case of absence from duty. This enables the worker to plan effectively.
3. It can be applied where output can't be easily measured quantitatively e.g. the services of a doctor, teacher.
4. It leads to high quality work. This is because employees are motivated by the regular payment.
5. It reduces income inequalities among the workers in the same firm. This is because all the workers are paid a uniform wage basing on the number of hours worked not the amount of work done.
6. It is suitable for organisations where team work is emphasized as opposed to individual effort.

### **Demerits of time rate method**

1. It requires a lot of supervision and time checking to ensure that work is done efficiently hence high costs of administration.
2. It is a disincentive for labour efficiency because hardworking and lazy workers earn the same wage.
3. It leads to low output. There is a tendency of workers to dodge or do little work since they are assured of their wages at the end of the period.
4. It leads to production of low quality output. This is because it does not consider how the work is done but rather the period worked.
5. It is not suitable to use in a situation where there is need to increase output very fast. For example when a firm is supplying a certain product to a given company and there is a sharp increase in demand.
6. It is difficult to identify the hardworking employees when using the time rate method of wage payment.
7. Encourages laziness by the workers.

### **3. Sliding scale method**

This is a method of wage payment where the worker is paid according to the cost of living. When the cost of living increases, wages are increased and vice versa.

The worker's purchasing power is kept constant thus maintaining a stable standard of living. Producers of consumer goods benefit indirectly because consumption is not affected.

#### **Demerits associated with this method.**

1. Causes conflicts between employers and employees especially where there is a decrease in the cost of living and workers do not want their wages to be decreased.
2. Planning becomes difficult for the workers due to uncertain wages since one cannot predict the trend of the cost of living.
3. It may cause wage push and cost push inflation where prices increase due to labourers' desire for high wages.

### **3. Bonus payment**

This is a situation where a worker is given an extra amount of money for producing beyond the expected target or working beyond the recommended time.

### **4. Payment in kind.**

This is where a worker is paid in terms of goods for the work done for example giving bunches of bananas to those working in a banana plantation.

## **THEORIES OF WAGE DETERMINATION**

### **1. Subsistence theory of wages (the iron's law of wages)**

It states that workers should be paid wages to enable them meet their bare subsistence needs so that they can worker harder after experiencing hardships like hunger.

#### **Applicability of the theory in determination of wages in Uganda**

- a) Casual workers/ unskilled labourers are paid basing on the level of their subsistence needs.

- b) In the subsistence sector of Uganda, rewards to workers are based on basic needs hence applicability of the law.
- c) Employers in a bid to retain cheap labour tend to pay workers wages which are just enough to cater for their subsistence needs.
- d) Entrepreneurs due to profit maximization goal pay workers wages which are just enough to meet their subsistence needs.
- e) Workers/ employees due to high level of unemployment are willing to accept low wage rates as long as it covers their subsistence needs.

### **Limitations of the iron law of wages in uganda**

- a) The law approaches the problem of wage determination entirely from the supply side. It ignores the demand for labour entirely thus difficulty in using it.
- b) The theory relates wage rates to birth rates/ population growth (rate) which is not the case in Uganda's labour market.
- c) According to the theory, all workers should receive the same wage (rate) which is not the case in Uganda (where wages differ)
- d) The theory does not consider the fact that bare minimum needs vary from time to time depending on price levels, economic conditions, etc.
- e) The theory is only applicable to the subsistence sector but not to the commercialised sector of Uganda's economy which uses other considerations in wage determination.
- f) Trade union influence in wage determination is not taken into consideration by the theory.
- g) Contrary to the assertion of the law, employees work harder when paid higher wages.

## **2. Wage fund theory of wages.**

The theory advocates that employers put aside a fund from which wages must be paid and this money must not be used for any other purpose other than paying wages.

The wage fund is accumulated from profits realized from production.

The bigger the fund, the higher the wages paid to the workers and the smaller the fund the lower the wages paid.

**Limitations of the theory include;**

- Employers do not usually create wage funds in order to pay workers.
- Wages are not necessarily determined by the wage fund but by labour demand and productivity.
- It considers the wage fund first and the wage rate later yet wage rate is considered first and the wage fund later.
- It assumes that wage rate is calculated by dividing the total amount of money by the number of workers which is not always true.
- The theory does not provide an explanation to changes in wage rates apart from changes in labour supply.

**3. Residual theory.**

According to this theory, wages are residuals (leftovers) after other factors of production have been rewarded. The more the leftovers, the higher the wages and vice versa

**4. Bargaining theory of wages.**

This theory states that wages are determined by the relative strength of the trade union and employers' association concerned. Arriving at a given wage involves negotiations between management and the trade union representatives.

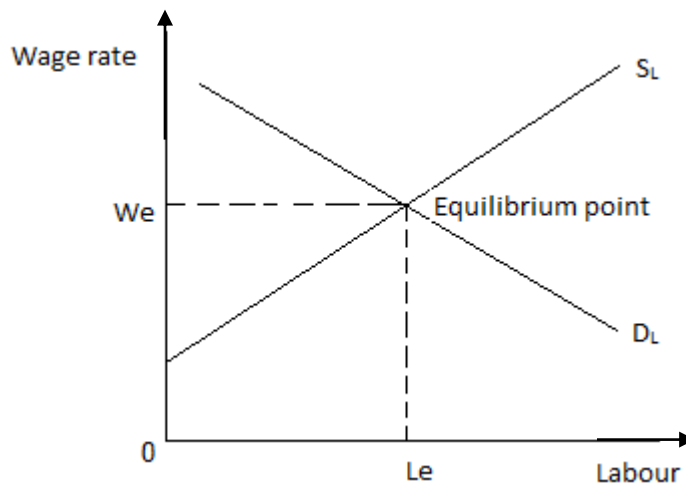
**5. The market theory of wages (modern)**

According to this theory, the wage is determined at the point of intersection of the market forces of demand and supply for labour.

Since the wage rate is the price of labour, the wage rate in the market is determined by job seekers (labour supply) and employers (labour demand) and this gives a realistic wage level in the market.

If there exists excessive supply of labour in the market, wages fall and if there is excessive demand for labour, wages increase.

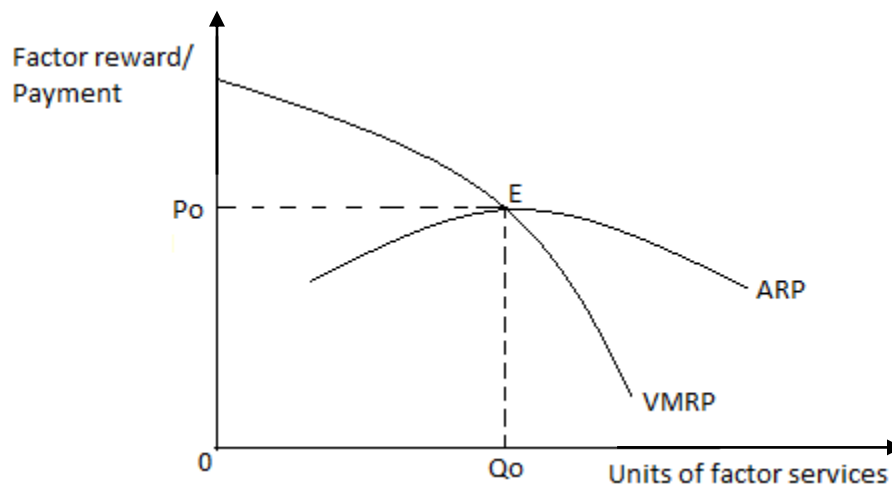
### Illustration



## 6. The marginal productivity theory of distribution

The theory states that a factor of production should be paid a reward which is equal to the monetary value of its marginal (physical) product.

### Illustration of the marginal productivity theory of distribution



Where;

ARP is average revenue product.

VMRP is value of marginal revenue product.

OQo units of factor service employed.

OPo is the factor price.

From the diagram above, the factor price is determined at a point E where  $ARP = MRP$ . Thus each factor service is paid OPo price for OQo units of output.

**Assumptions of the theory are;**

- It assumes that all units of factors of production are homogeneous.
- Output, can be quantified into measurable units.
- It assumes that the marginal product of a factor of production can be calculated.
- It assumes fair and perfect mobility of factors of production.
- It assumes full employment of factors of production.
- It assumes perfect knowledge in the factor market.
- It assumes no government intervention in determination of factor rewards
- It assumes operation of the law of diminishing returns.
- It assumes perfect competition in the factor market.
- It assumes a long run situation.
- The theory assumes that firms aim at profit maximization.

**APPLICABILITY OF THE THEORY**

To a minor extent, the theory can be applicable to LDCs due to the following;

- The payment to a factor according to the value of its marginal product can be used where output can be quantified.
- Factor input in LDCs have tended to homogeneous for example unskilled labour, firm land and money capital.
- Technology in many developing countries has tended to be constantly rudimentary/primitive hence making the theory applicable.
- In liberalized economy and private sector operations, government has limited or no control in determining rewards to factors of production but other factors are used for example forces of demand and supply of a factor, productivity of a factor and bargaining strength.

**LIMITATIONS/ CRITICISMS OF THE THEORY**

- Government legislation of factor prices is not taken into account by the theory.
- The theory ignores the role of trade unions and individual bargaining power in the determination of factor rewards for example the wage rate for labour.

- All units of factor inputs are not homogeneous as the theory assumes. For example fertility of land differs from one place to another; likewise efficiency of labour differs from one worker to worker.
- The factors of production are not perfectly mobile between different employments and places for example labour tends to be immobile both geographically and occupationally due to limited skills and ignorance, land is also geographically immobile.
- It assumes the law of diminishing returns which is unrealistic since there may be increasing returns.
- It ignores other determinants of factor rewards for example historical factors like inherited salary structures.
- It ignores the use of other factors to reward factors of production other than their marginal (physical) product for example skills and experience.
- It is difficult to measure the marginal product of a factor of production in some occupations for example services offered by teachers, doctors.
- Production is not a result of one factor alone and hence it's difficult to determine the contribution of each factor to marginal product.
- Perfect market conditions do not exist in true market situation. What is in existence is imperfect competition. This leads to exploitation of factors by being paid much lower than their marginal productivity.
- The factors of production are not fully employed as the theory assumes. Full employment does not exist in LDCs as there are high levels of unemployment and underemployment and in such cases, factor inputs will offer their services even at a price less than their marginal product.
- Profit motive is not the main aim of production always. There are other factors that motivate entrepreneurs besides profits.
- The theory assumes a long run situation yet firms are mainly concerned with short run situations.
- Employers at times use the subsistence theory of wages which is at times below or above the value of marginal product.
- The value of marginal product is not necessarily equal to the value of factor inputs used in producing it but determined by other factors for example forces of demand and supply.

## ASSIGNMENT

- a) Explain the marginal productivity theory of wages
- b) To what extent is the marginal productivity theory of wages applicable to developing countries?

### **FACTORS THAT INFLUENCE THE LEVEL OF WAGES IN AN ECONOMY**

#### **1. The quantity of output produced.**

More amount of work done leads to high wages given to workers because of their high level of productivity but less amount of work done leads to low wages given to workers due to the low levels of productivity

#### **2. The duration/ time spent at work.**

More time spent by a worker at a given job leads to high wage given to such a worker because of contributing more to output but less time taken on a given job results into low wages given to a worker since the contribution to output is low.

#### **3. The ability and willingness of the employer to pay.**

The higher the willingness and ability to pay the workers, the higher the wages given but when willingness and the ability to pay the workers is low, the wages given to the workers are low.

#### **4. The ability of the individual employee to bargain.**

A worker with a strong bargaining power is able to be paid a high wage because of his ability to convince the employer for better pay than a worker with low bargaining who cannot easily convince the employer for a better pay even when they are of the same qualifications and do the same job.

#### **5. The level of education and skills.**

Highly skilled labour is paid more wages because of the high productivity and efficiency than a worker with a low level of education who is inefficient and needs further training.

#### **6. The level of talents and natural/ physical ability.**

A highly talented worker is gifted and contributes more to output hence earns more wages than a worker who is less talented and contributes less to output.

#### **7. The strength of the trade union.**



Workers under trade unions with a strong bargaining power earn more wages because of the ability of the trade union to negotiate for better terms of employment but workers under weak trade unions are paid low wages since their trade unions cannot actively negotiate for better terms of service.

**8. The cost of living.**

High costs of living like in urban areas lead to high wages given to workers to enable them sustain better standards of living while low costs of living like in rural areas lead to low wages given to workers because of the minimal cost required to sustain a given lifestyle.

**9. Discrimination in the labour market.**

Some employees pay high wages to some works and at the same time other workers are paid low wages for the same occupation within the same company basing on differences in age, religion, gender and political party.

**10. The government policy of wages.**

Government gives different wages to different civil servants in different departments. Some are paid high wages because of their high levels of experience, education and productivity while others are paid low wages because of their low levels of experience and productivity.

**11. The level of risks/ the nature of occupation.**

Highly risky jobs result into high wages given to workers to compensate them for the risk they are exposed to while less risky jobs result into low wages given to workers.

**12. The degree of seniority, responsibility and/ or experience.**

High level of experience or more responsibilities lead to high wages given to a worker because of the high level of efficiency while limited experience or responsibility leads to low wages given to a worker since he contributes less to a firm's output.

**13. Market forces of demand and supply.**

A high demand for labour compared to labour supply leads to high wages paid to workers since there are more job vacancies than the job seekers but a high labour supply compared to the demand for labour leads to low wages paid to workers as the job seekers are more than the job vacancies available.

**14. The (elasticity of) labour supply.**

**15. Degree of substitutability of labour.**

**16. The (elasticity of) demand for products of labour/ labour.**

## **WAGE DIFFERENTIALS**

This is where different workers earn different wages in the labour market.

### **FORMS OF WAGE DIFFERENTIALS**

#### **1. Individual wage differentials**

These are differentials among different individuals based on sex, age, expertise, level of skills, etc.

#### **2. Occupational wage differentials**

These are differentials between people belonging to different occupations e.g. teachers versus engineers.

#### **3. Regional wage differentials**

These are differentials between people living in different areas of an economy e.g. urban wages and rural wages.

#### **4. Sectoral wage differentials**

These are differentials between people employed in different sectors of the economy e.g. the industrial sector versus the agricultural sector.

#### **5. Intra – sectoral wage differentials**

This is where within the same sector, some people earn more than others. E.g. within the agricultural sector, commercial agriculturalists earn more than subsistence farmers.

### **CAUSES OF WAGE DIFFERENTIALS**

1. Difference in people's ability to do work/ Differences in the quantity of output produced.
2. Differences in the number of hours worked.
3. Differences in employer's ability and willingness to pay workers.
4. Differences in bargaining strength of individuals.
5. Differences in levels of skills (Education and training)
6. Differences in talents and natural ability.
7. Differences in strength of trade unions and professional associations
8. Differences in the cost of living

9. Discrimination in the labour markets based on age, sex, religion and race.
10. Differences in elasticity of supply of labour
11. Government policy on income, wages which tend to be non-matching.
12. Differences in the nature of jobs.
13. Differences in experience, expertise or responsibility in that senior workers tend to earn more.

### **TRADE UNIONS**

A trade union is an association / organization formed by workers with the primary objective of advocating for increased wages and improved conditions of work for its members.

Examples of trade unions in Uganda include

- National Organisation of Trade Unions (NOTU)
- Uganda National Teachers' Union (UNATU)
- Uganda Law Society (ULS)
- Uganda Medical Workers' Union (UMWU)
- Uganda Railway Workers' Union (URWU)
- Makerere University Academic Staff Association (MUASA)
- Etc

### **Objectives of trade unions**

**1. To bargain for better wages.**

They always do this when the cost of living increases through collective bargaining and other tools.

**2. To demand for better working conditions.**

They achieve this by representing their affected members in the negotiations for better conditions of service.

**3. To advise government on issues pertaining to manpower planning** (Labour, wages, employment policies).

They achieve this by rendering advisory services to the government in forecasting and training the manpower needed by a country currently and in the future.

**4. To protect members against unfair treatment by employers for example abrupt dismissal.**

They achieve this through intervening with appropriate tools when members are unfairly dismissed by their employers.

**5. To improve the skills of their members.**

They achieve this by conducting regular workshops and seminars/ short courses to ensure that members have high productivity so that they are employable.

**6. To create unity among workers.**

They achieve this by maintaining consistent membership in the unions. They maintain the old members and encourage new members to join.

**7. To advocate for the human rights of the workers.**

They do this by forming or sponsoring political parties and pressure groups for example the labour party of UK.

**Types of trade unions**

**1. Open shop**

An open shop refers to a trade union whose membership is free and open regardless of the industry or qualification e.g. National Organization of Trade unions (UNATU)

**2. Closed shop**

A closed shop refers to a trade union in which membership is restricted to a particular group of workers with particular skills e.g. Uganda Law Society (ULS), Uganda National Teachers Union (UNATU) and Uganda Medical Workers Association (UMWA), MUASA, U.L.A, UWEA.

**3. Professional/ Craft trade unions**

These are associations of workers with similar skills irrespective of the company or industry in which they are employed.

For example the Uganda National Teachers Union (UNATU)

**4. Industrial Trade unions**

These are associations of workers in a particular industry irrespective of their skills.

For example The Uganda Medical Workers Association (UMWA)

**5. Company Trade unions**

These are associations of workers of a particular company or factory or firm.

For example The Uganda Railway Workers' Association (URWA)

### **METHODS USED BY TRADE UNIONS TO ACHIEVE THEIR OBJECTIVES**

#### **1. Collective bargaining**

In this method, the leaders of the trade union sit with the employers and negotiate for better wages and working conditions. In case the employers do not give in to the demands of the workers, the trade union leaders resort to means that would force the employers to offer better wages and they usually involve creating loss for the firm.

#### **2. Mediation/ industrial arbitration**

In this method, the leaders of the trade union and the employer get an independent and impartial third party that helps them find a common ground for the good of either side. The third party helps both sides to see each other's point of argument and steer them to agreement.

#### **3. Court action.**

In this method, the trade union opts to go to court and file a case against the employer especially if the employer has refused to effect an agreement. It is up to court to rule in favour of either party. Sometimes when a lower court rules in favour of the employer, the trade union may make an appeal in a higher court.

#### **4. Sabotage (media wars/ boycott, de-campaigning)**

With this method, the members of the trade union resort to measures that discredit the firm so that it makes losses. The union members may shun the consumption of the products of the industry (primary boycott) or they may decide to convince the public not to buy the products of the industry (secondary boycott) by putting negative campaign messages in newspapers, on television and other public media. All this is meant to create pressure on the employers so that they change their position and give in to the demands of the works.

#### **5. Go slow method**

With this method, the workers use time wasting techniques while at work. The intention is to reduce output and cause losses to the employer. It is anticipated that the employer would feel the pain and give in to the demands of the workers.

#### **6. Sit down strike**

With this method, the workers report at the workplace but they do not engage themselves in any productive work i.e. they lay their tools until the employers respond to their problems.

**7. Picketing**

This involves prohibiting workers to go beyond certain points (Picket lines) and some workers (pickets) are deployed to ensure that everybody complies. Those who fail to comply may be punished by beating them up.

**8. Demonstration**

With this method, the workers make posters or banners describing their grievance which they display as they move around for public sympathy. The main intention is to make the problems public. In so doing, employer is forced to address the demands of the employees very fast if they are genuine in order to save the image of the company.

**9. Go on strike/ the destructive method/ industrial action/ violent strikes**

This involves workers refusing to work and in addition, they destroy the property of the firm. For example they can decide to burn down the industrial plant.

**10. Abduction of key members of management.**

The union members carry off illegally and by force the key members of employers' officials and they are treated as hostages. To save the abducted individuals, the employer has to respect the demands of the workers.

**11. Closed shop – Supply highly restricted/ Restriction of entry of new members.**

This involves requiring employers to only employ members who are registered with the trade union. The trade union limits the number of people who can become members either directly or indirectly so as to limit supply of labour to the industry. This forces wages up due to limited supply of labour.

**FACTORS ADVANCED BY TRADE UNIONS WHEN DEMANDING FOR PAY**

**RISE**

When demanding for a higher pay, workers have to justify their demand so that the employer may agree to raise the pay or keep paying the same amount of money. Trade unions tend to table the following arguments in their round table negotiations;

**1. Profitability argument.**

An increase in the profit level of a firm makes workers to feel that they should have a fair share in the additional profits earned. This is because the firm's ability to pay has increased and they also believe that they substantially contribute to the profitability of the firm.

**2. Productivity argument.**

An increase in the workers' productivity makes trade unions to demand for higher wages so as to compensate the workers for raising the output per worker. Workers tend to believe that they are the ones that enable all other factors of production to produce and therefore justified to get an increase in pay.

**3. Comparative wage argument.**

When workers learn of higher wage rates in similar occupations, they demand for an increase in pay so as to create equity in between jobs. They argue that since the work is similar, they should get the same pay.

**4. Relative wage argument.**

In cases where the workers feel that they are being exploited by the employer, they tend to demand for an increase in pay so that their wages correspond with the effort they put in.

**5. Cost of living argument.**

A significant increase in the cost of living makes the current pay to the workers inadequate to enable them to lead the lifestyle they are accustomed to. To ensure an equivalent standard of living, trade unions demand for an increase in wages for their members that are proportionate to the increase in the general price level.

**6. Wage agreed upon earlier or minimum wage legislated by government is not paid to workers.**

Where the employer is not paying a prior agreed amount of money or when not paying a legislated minimum wage to the workers, trade unions demand for an increase in pay so that the wages paid match with the agreed amount or the minimum legislated wage.

**7. Trade union members have attained more skills.**

Trade unions demand for pay rise for the members when members' skills improve so as to compensate members for the costs incurred and time spent in acquiring the new skills.

**8. Work load has increased but without corresponding increase in pay.**

An increase in the workload for the workers prompts trade unions to demand for higher wages for their workers because the workers feel that when more is demanded from them, then they should be paid more.

**9. The work has become more risky.**

Trade unions are justified to demand for increased wages for their members to compensate them for the risks they go through.

**10. Failure to effect the agreed upon periodic wage increases.**

Employers usually agree to offer workers regular pay rises but later refuse to honour the agreements making trade unions justified to take the necessary steps to force the employer to honour the agreement.

**11. Increase in demand for labour.**

At times when trade unions believe that the demand for labour services of their members has increased, they tend to demand for higher wages and expect the current employer to effect the increment for fear of losing them to other competing firms.

**12. Workers in the same occupation got a wage increment.**

This justifies the trade unions to demand for a pay rise for their members since the work being done is the same and there is need to have wage uniformity.

**Assignment**

- a) Distinguish between **collective bargaining** and **picketing**.
- b) Under what circumstances are Trade Unions justified to demand for wage increases?

**Solution**

- When the cost of living increases/ In case of inflation hence need for more pay to maintain their standard of living.
- When there is increased profitability of the firm due to increase in prices of products produced by labour.
- When there has been increased labour productivity.
- When the wages being offered are below the government set minimum wage.
- If higher wages are offered to workers with similar jobs in other industries.
- In case of increased demand for the products produced by labour.



- When supply of labour becomes more inelastic hence becoming difficult to substitute workers.
- In case the employers fail to effect the agreed upon periodical wage increases.
- In case of improvement in working skills via training.
- When workers feel that the wage being paid is lower compared to the services they render.
- In case of increased risks at the job.
- If the workload or number of hours worked are increased.

### **Features/ characteristics of trade unions in LDCS**

- They are amorphous i.e. lack permanent membership.
- They are financially weak.
- They have small membership.
- Have weak leadership.
- Experience high levels of corruption.
- They tend to be politically motivated.
- They are characterized by unity for example on religious or tribal basis.
- They suffer from political interference.

### **FACTORS THAT INFLUENCE THE STRENGTH OF TRADE UNIONS**

#### **1. Degree of unity of members of the trade union.**

Trade unions whose members are divided on sectarian grounds such as on the basis of tribe, religion or political affiliation are weak since they find it hard to agree on a particular weapon to achieve wage increment and better working conditions while trade unions which are organised on the basis of workers' economic interests are strong since they easily agree on tools to employ so as to achieve their objectives.

#### **2. Level of leadership ability/ leadership bargaining skills**

Trade unions whose leaders are equipped with leadership skills are in a stronger bargaining position than those whose leaders have limited leadership skills. This is because skilled

leaders have an advantage of superior negotiation skills and may time their demands more appropriately.

**3. Level of government interference**

Government interference in the activities of trade unions for instance by putting in place laws that prohibit industrial action and appointing their leaders makes trade unions to be weak. On the other hand, limited government intervention in the activities of trade unions makes trade unions to be in a better position to bargain for better wages and working conditions.

**4. Availability of funds to finance union activities/ availability and size of strike fund**

Trade unions with adequate funding tend to be strong since they can easily run their activities and ably get their members through a strike while trade unions with limited funds are weak because they cannot sustain industrial action and thus they easily give up on their demands after a short time.

**5. Level of skills of members.**

Trade unions of skilled labour tend to be very strong because the members are united, understand the concept of trade unions and are in position to articulate their demands better. On the other hand, trade unions of unskilled workers miss out on all these positive attributes and are easily manipulated by employers through dividing them and in some cases corrupting their leaders.

**6. Level of employment**

High levels of unemployment comprise the trade unions' ability to negotiate for higher wages due to excess labour in the market and thus employers can easily let the existing workers to go and they higher other workers at lower wages. On the other hand, low levels of unemployment imply low labour supply in the market thus boosting the chances of trade unions to bargain for higher wages with better chances of success.

**7. Level of demand for products produced by the member of the trade union**

The higher the demand for the products, the stronger the trade union and the lower the demand, the weaker the trade union

**8. Economic performance/ profitability of firms.**

Trade unions are strong when firms are earning profits since it is easy for them to demand for higher wages with the argument that labour contributes to the attainment of such profits. In

times of low profits, it is hard for trade unions to successfully bargain for higher wages because the employers feel that the higher wages would result into losses.

#### **9. Elasticity of supply of labour**

Trade unions with labour that is inelastic in supply are strong because increase in wages does not cause flooding of the labour market. For elastic supply however, a slight increase in wages floods the labour market creating excess labour hence dampening wages. This explains why it is easier to increase wages of skilled labour like doctors than unskilled labour like plantation workers.

#### **10. Level of infrastructural development especially roads and communication facilities**

Poor infrastructure in some areas hinders the passing of information among members hence limiting coordination of union activities in an economy. This leads to failure of trade unions to achieve their objectives. On the other hand, trade unions are stronger where communication and other infrastructure are well developed as this facilitates the passing on of information among members hence better coordination of union activities.

#### **11. Degree of awareness of members about their rights.**

Ignorance of workers of their rights limits the morale and loyalty of the workers as it causes disinterestedness in trade union activities making the trade unions to be weak. On the other hand, trade unions are stronger when workers know their rights and are capable of fighting for them at the work place.

#### **12. Level of accountability of trade union members.**

High level of corruption among members especially the leader weakens trade unions ability to demand for wage increase especially where the leaders receive bribes from the employers and thus work against the objectives of the trade union on the other hand, trade unions are stronger when there is high level of accountability by the leaders in performance of trade union activities.

#### **13. Proportion of the wage bill to total costs of production**

In instances where the wage constitutes a large proportion of the total cost, the employers tend to resist wage increments because they would substantially increase the cost and eat into the firm's profits. However when the wage is relatively small, trade unions find themselves in a stronger position to bargain for higher wages since the employer would not feel the burden of increasing the wage.

#### **14. Substitutability of labour**

In circumstances where labour can easily be substituted especially by capital, trade unions are weak because whenever they try to press the employers to increase wages, they threaten to employ capital intensive technology. However labour that is not easily substituted can easily bargain for better wages since there is limited competition with capital for jobs.

#### **15. Price elasticity of demand for products produced by union members.**

Trade unions whose members produce products with price elastic demand are weak because they find it hard to convince the employers to increase wages since it is hard to pass on the cost to consumers through increased prices as this would adversely affect demand. However when the product has price inelastic demand, the employer finds it easy to transfer the cost to the consumer thus and thus trade unions easily achieve their objectives.

#### **16. Degree of unionisation.**

Trade unions are strong when they are closed shop since they can limit the supply of labour to the industry and force wages up. On the other hand, trade unions are weak when they are open shop since there is a possibility of non-members negotiating independent wage bargains.

#### **NOTE**

**A closed shop** is a trade union that requires the employers to employ only workers that are registered. This implies that if a worker is to be employed in a given line of occupation, he/ she has to first become a member of the trade union.

**An open shop** is a trade union where workers are free to either join or not and employers are free to employ anyone irrespective of whether they belong to the trade union or not.

#### **Assignment**

Account for the low bargaining power of trade unions in Uganda.

#### **FACTORS THAT LIMIT THE ABILITY OF TRADE UNIONS TO RAISE WAGES IN LDCs/ PROBLEMS FACING TRADE UNIONS IN DEVELOPING COUNTRIES**

##### **1. High levels of corruption and embezzlement of union funds by the leaders.**

This discourages the members hence weakening the unions.

##### **2. Poor transport and communication facilities.**

This makes it hard for the workers to be properly coordinated and organized in fulfilling the activities and objectives of trade unions.

**3. Financial problems.**

This is a result of high levels of poverty among the workers due to little payment. Therefore such members cannot sustain the activities of trade unions.

**4. Disunity of members.**

Disunity is mainly due to tribal, political, religious and regional differences among workers. This makes the organization and leadership of trade unions difficult.

**5. Rampant unemployment problem.**

There are high levels of unemployment in developing countries which makes trade unions weak. Workers fear to go on strike for fear of losing their jobs.

**6. Ignorance of workers about trade union activities.**

Most members are illiterate and they find it difficult to understand how trade unions work

**7. Political instability.**

**8. Weak union leadership.**

There is limited supply of well qualified and experienced leaders to put forward the workers' problems and aspirations. Such leaders fail to present the grievances of workers to the management.

**9. Limited interest by the workers.**

Many workers have limited interest in the activities of trade unions. This makes trade unions to be in weak bargaining position.

**10. Presence of target workers.**

Majority of the labour force is composed of target workers. Such workers are mobile which reduces the bargaining power of trade unions. It is also difficult to indoctrinate unstable labour force.

**11. Government interference in the activities of trade unions.**

Strikes are made illegal, government workers lose their jobs or are put in prison once they stage strikes.

## **THE ROLE OF TRADE UNIONS IN THE DEVELOPMENT OF AN ECONOMY**

### **POSITIVE ROLE**

1. They increase wages of workers which implies greater purchasing power that is an incentive to production of more goods and services hence economic growth.
2. They increase wages of workers hence increased productivity which leads to increased output hence economic growth.
3. They promote social welfare of the population because they not only agitate for increased wages but also for improved conditions like feeding, transport, proper accommodation. Such conditions result into higher productivity.
4. Trade unions are very instrumental in providing expert advice to the government in matters regarding labour laws e.g. when legislating wages, determining pensions, length of working hours, etc.
5. They improve the skills of their members through organizing workshops and seminars hence improving the productivity and efficiency of the workers.
6. They enable members to secure better positions leading to greater productivity.
7. They promote the human rights of the workers hence improving the productivity of members.
8. They help in bringing about good governance which leads to political stability that enhances productivity.
9. They help in reducing income inequalities to ensure improved demand for goods and services.
10. They promote unity among workers thereby enhancing team work and greater productivity

### **NEGATIVE ROLE**

1. High levels of wages due to trade union activities raise the costs of production. This scares investors due to fear of making losses.
2. Trade union activities like and go slow method and sit down strikes have a negative effect on national output. This is because many hours of work are lost during these methods and as a result, output reduces.
3. Trade union activities like sit down strikes cause delays in completion of government projects. This leads to increased government expenditure and wastage of resources.

4. Trade union activities worsen the unemployment problem because they make employers to prefer the use of machines.
5. Trade unions are responsible for unfair distribution of income because they tend to be active and strong in some sectors and inactive and weak in others.
6. Some of their activities promote political instability like violent strikes.
7. Trade union activities fuel and create inflation i.e. wage push inflation.
8. Trade union activities like strikes destroy property and life. This is especially true when the violent strikes are used to achieve the union objectives.
9. Trade unions are responsible for increased urban migrations. This is because their activities are strong in industries that are urban based and are inactive and weak in the agricultural sector. As a result, people move to urban areas in search for higher wages and better working conditions.
10. They lead to employers' exploitation leading to reduced profitability which discourages investment.
11. They promote exploitation of consumers due to high prices set by employers in order to raise the high wages demanded.

### **ASSIGNMENT**

1. To what extent have trade unions in Uganda achieved their objectives?
2. Why may trade union activities be undesirable in an economy?