

TOPIC 5: POPULATION AND LABOUR

Sub-topic: population

Population refers to the total number of people living in a specific area such as a particular country or town at a given time.

Some important concepts

Crude birth rate

This refers to the total number of children born alive per 1000 of a given population in a given year.

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.

Death rate

This refers to the number of people who die in a year per 1000 of the total population.

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.

Population density: the number of people per unit area of land, for example, per square kilometre.

Population increase (rate of): rate at which a given population size grows over a given period of time, for example, one year.

Mortality rate: 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 care and education which have been provided to the people by government.

Life expectancy: time period, normally in years, that a baby is expected to live after it has been born alive.

Fertility rate

This refers to yearly number of children born alive per thousand women within the child bearing age bracket, normally between the ages of 15 and 49 years.

Causes of high fertility rates in developing countries

- The economic value of children. Some communities attach great importance to the number of children in a family. This is because children are a source of labour and provide security to their parents later in old age.
- Customs and traditions. In some communities children are sources of pride, pleasure and respect to 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.
- Low cost of rearing children. The cost of rearing children in some societies is lower than benefits realised from them. Costs of rearing children in such societies is low because food is plentifully available free of charge and government mesas the cost of education and medical care. Thus the burden of having many children is not so much felt by parents thus encouraging them to produce more.
- Early marriage. Women in developing countries tend to marry when they air still young, usually at the age of fifteen or less. The child bearing period of up to 49 years of age is therefore very high.
- 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.
- Absence of government commitment to control fertility. Fertility rates are high due to failure by governments 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.
- Increased health and life expectancy of mothers. Education and health services have increased life expectancy of child bearing mothers through reduced maternal mortality rates thereby increasing fertility rates.

Population growth rate: refers to the rate at which a given population increases over a period of time, usually one year.

OrRefers to the rate / degree at which the population of a given area increases given time.

It shows the rate at which the population of a country is changing. This may natural population growth rate or artificial population growth rate.

Natural population growth rate is the rate of increase of the population over a given period due to inter play of birth rates and death rates.

OrThe rate at which a given population size grows over a given period due increase in the number of births and decrease in the number of deaths.

OrThe rate of change of population resulting from the interplay of birth rates and death rates.

It is established by expressing the difference between new births and deaths as -percentage of one thousand people.

$$\text{Natural population growth rate} = \frac{\text{birth rate} - \text{death rate}}{1000} \times 100$$

Artificial population growth rate: is the rate of change of population resulting from the inter play of immigration and emigration rates.

$$\text{Artificial population growth rate:} = \frac{(\text{immigration rate} - \text{emigration rate})}{1000} \times 100$$

Determinants of population growth rate

- Birth rate (fertility rate)
- Death rate (mortality rate)
- Emigration rate
- Immigration rate

Thus population growth depends on the relative increase in population size due to natural increase and net international migration.

Natural increase simply sires the excess of births over deaths or simply, the difference between dry and mortality rates.

Net International migration, is the difference between those leaving the country and those entering it during a given period time.

Population projection is an estimation of the future population size basing on the population size and population growth rate.

The population trap is a point in time, in the Malthusian population theory, at population size is equal to food supply or subsistence beyond which population is subject to starvation, death and misery.

Working population is the total number of people who are employed, self employed and unemployed in the economically active age bracket.

Fertility rate is the number of children a woman can bear in her reproductive ages/life, usually 15 to 45 years.

Hidden momentum of population growth is a situation where the greatest portion of the population is made up of the young implying a higher growth rate it future.

OrIs a dynamic latent process of population increase that continues even after a fall in birth rates because of a large youthful population that widens the population parent base.

Optimum population a population size that provides labourforce which is sufficient to exploit the available natural resources in order to yield maximum output per worker and per capita income is highest.

Overpopulation, a population size that provides labourforce which is in excess of the available resources leading to low output per capita.

Under population: a population size that provides labourforce which is insufficient to utilise the available resources fully and income per capita is less than optimum.

Population census

This is the physical counting of people living in an area or country every after years.

Reasons / rationale for carrying out a population census

- 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 the country.
- To establish the size of a country's population so as to facilitate planning, example planning for employment, housing and educational facilities requires accurate population figures.
- To establish the distribution of the population. This focuses on age, sex, level of education and spatial distribution. This enables the government to allocate resources appropriately in the country.
- To establish the quality of the country's population. This mainly focuses on a level of education and the healthy status of the people in the country. This aids manpower planning in the country.
- To establish the size of the labourforce. The government wishes to find out number of the people ready for employment such that it puts in place a conducive environment to ensure that the jobs are available.
- To determine or calculate the natural population growth rate. This is through computing the number of live births per 1000 population and the number of death per 1000 population so as to find out whether a population is increasing or not.
- 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 the artificial population growth rate.
- To solicit for foreign aid. This is through presenting the population statistics 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.
- To establish the number of nationals and non-nationals in the country. This is to help the government design appropriate policies on ownership of property, work permits and immigration.
- 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 statuses depends on the existing size of the population.

Importance of population census

- Determines the population growth rate.
- Determines the employment levels in the country.
- Determines the levels of education in the country.
- Determines the size of the country's potential labourforce.
- Determines the size of the population in relation to the available resources.
- Determines the age structure of the population in order to know the dependency ratio.
- Determines the population distribution in terms of rural and urban areas.
- Determines the rate of migration, that is, the number of emigrants and immigrants.

Population pyramid

Population pyramid, also called age pyramid or age picture diagram is a graphical illustration of the age and sex structure of the population.

Or It is a graphical illustration that shows the distribution of various age groups in population (typically that of a country or region of the world), which forms the shape of a pyramid when the population is growing.

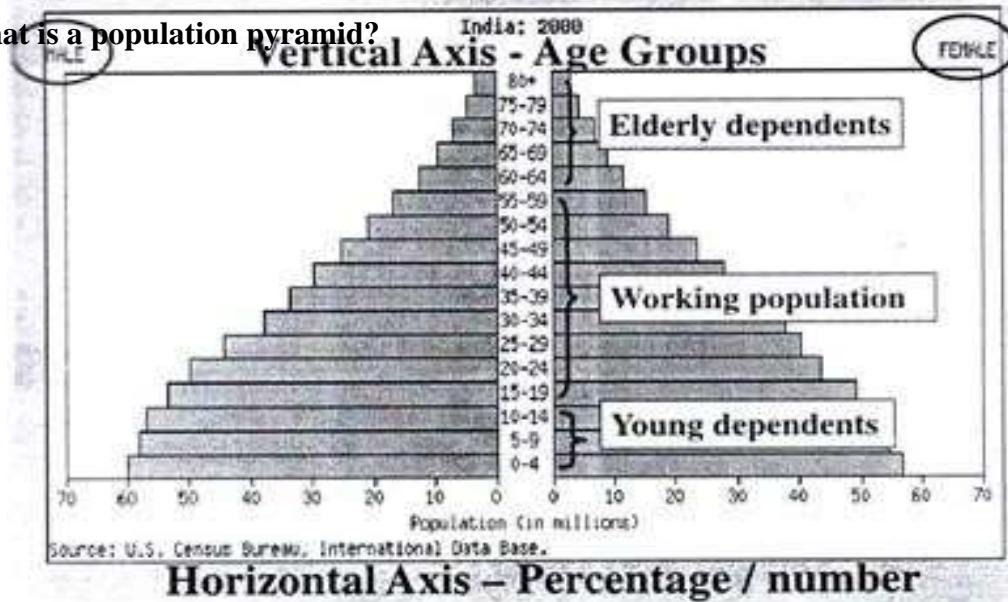
Population pyramids are often viewed as the most effective way to graphically depict the age and sex distribution of a population, partly because of the very clear image these pyramids present.

A great deal of information about the population broken down by age and sex can be read from a population pyramid, and this can shed light on the extent of development and other aspects of the population. A population pyramid also tells how many people of each age range live in the area. There tends to be more females than males in the older age groups, due to females' longer life expectancy.

Population pyramids are used by demographers as a tool for understanding the make-up of a given population, whether a city, country, region, or the world.

Population pyramids can be used to find the number of economic dependents being supported in a particular population. Economic dependents are defined as those under 15 (children who are in full-time education and therefore unable to work) and those over 65 (those who have the option of being retired). In many countries, the government plans the economy in such a way that the working population can support these dependents. This number can be further used to calculate the dependency ratio in that population.

What is a population pyramid?



Structure of Uganda's population

- The population of Uganda is characterized by the following:
- Dominated by the young age bracket constituting over 40% of the population.
- There are more females than males. There is generally about 51% females and 49% males
- Mainly rural based. There is approximately 80% of the population living in rural areas.
- High illiteracy rates. About 32% of Ugandans do not know how to read and write.
- High population growth rates. The growth rate is as high approximately per annum.
- Most people (majority of the population) are semi-skilled and / or unskilled
- Mainly engaged in primary production. The productive force of the population are mainly engaged in primary production especially agriculture.
- There is uneven spatial distribution of population. Some areas or districts as highly populated for example Kampala with 7360 people per square kilometre while other areas are sparsely populated like Moroto with 20 persons per square kilometre.
- A big proportion of the population live below the international poverty line. About 35% of the Ugandans live below the international poverty line. Many people in Uganda live on less than one dollar (US\$1) a day.

Economic implications of the population structure

Positive implications

- High market potential due to the high population growth rate. The steady growing population provides a large market potential.
- High potential for labourforce due to the high population growth rate. For example there is a possibility for the provision of cheap labour because many people are unskilled and semi-skilled.

- The high population growth rate provides a high potential for increased resource utilization leading to high economic growth rates.
- The dominant young population encourages effort to work hard so as to sustain the dependants.
- High potential for government tax revenue. This is due to the high population growth rate that provides labourforce to be taxed by the government.
- Acts as an incentive or potential for massive future investment because of the dominant young age brackets.
- The predominant young age group is usually innovative and creative. This g room for new discoveries leading to technological progress.
- The high population growth rate awakens the government to its responsibility: providing the necessary infrastructure which leads to increase in output.
- The high population growth rate reduces per capita social overhead costs for example reduction in the cost of providing infrastructure.
- Encourages labour mobility. The high population growth rate forces the skills: and unskilled labour to search for better opportunities either within the country: outside the country in order to earn a living.

Negative implications

- Results into unemployment and underemployment. This is because of the high population growth rate that results into excess labour supply compared to job openings.
- High rates of rural-urban migration and its negative effects like prostitution, high crime rates and congestion. This is due to the high population growth rates m rural areas that cause poor living conditions in such areas.
- High social costs in form of pollution, accidents, congestion and sanitary problems. This is due to the increasing population in the urban areas.
- Causes (perpetuates) increased income inequality between the employed and unemployed and between those above the poverty line and those below the poverty line.
- High government expenditure on provision of social services to the increasing regulation dominated by the young.
- High dependence burden thereby limiting savings. This is due to the dominance of the young age group that strains the working population.
- Worsens the balance of payments problems. This is because the high population growth rate leads to increase in import requirements to support the domestic
- Quick depletion of resources (overexploitation of the available resources). This b due to the increasing demand for resources like firewood by the increasing regulation in the rural areas.
- Makes effective government planning for the population difficult. The steadily rising population makes it difficult for the government to make long term plans. This arises because economic planners fail to accurately predict the population size over the years to set realistic development objectives and targets.

- Increases external resource dependence especially on foreign manpower. The regulation of Uganda is mainly semi-skilled; therefore, Uganda relies on repatriates in different fields leading to higher foreign expenditure.
- Low effective demand / limited domestic market. This is because many people 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 scares away investors.
- Increases 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.
- 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.
- Overstrains the available infrastructure like schools and hospitals. This is because the population is steadily increasing yet the infrastructure is not growing. Public utilities like hospitals, schools and roads are put under greater pressure by the growing population.

Theories of population

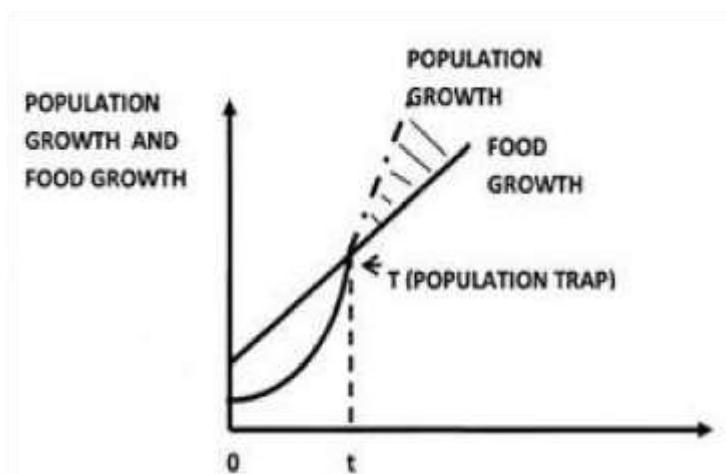
Malthusian population theory

Reverend Thomas Malthus' theory of population explains how population growth depends on food supply (resources available or means of subsistence), that is, shows the relationship between population growth and food supply. According to the theory, **population grows** at a **geometric rate** while food production tended to grow at an **arithmetic rate**. Therefore, the rate of increase in food production is slower than the rate at which population grows.

Malthus population trap or theory states that due to the above, there is a point when population growth equals food production (**population trap**); beyond which resources (food) would not be enough to sustain the population leading to vice, misery, sufferings, pestilence, death and other calamities (which tend to reduce population thereby bring a balance with food supply).

Therefore after the population trap, there was need to control (subject) the population through (to) preventive or **negative checks** like moral restraint (abstinence), celibacy, foresight and late marriages, otherwise **positive** or natural checks like famine, pestilence and diseases would serve to reduce population growth.

This situation can be illustrated as below:



At **point T**, the **population trap**, population growth equals means of subsistence (food production). Beyond point T (time period T), the shaded area, there is starvation, deaths, wars and diseases because population is more than food production.

Assumptions of the Malthusian theory of population

- 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.

Applicability or relevance of the theory to developing countries

To a **smaller extent**, the Malthusian population theory is relevant to the developing countries in the following ways:

- Land supply being fixed and subject to the law of diminishing returns is what is being experienced in many developing countries and he envisaged this situation. In some countries there are diminishing returns to land due to overgrazing, over-cultivation, land fragmentation, soil erosion and desertification. This therefore, concurs with Malthus' assumption that the law of diminishing returns applies in production.
- To some extent population is still being checked by natural family planning methods. The natural family planning methods or control measures like celibacy, late marriages and abstinence from sex which are preventive or negative checks are being used; these control measures are his initiation.
- The positive checks on population exist in some developing countries. Therefore, population is being checked by wars and natural disasters such as floods, epidemics and earthquakes.

- Land problems or disputes are common issues in many parts of the developing countries, for example, Bunyoro in Uganda. This has led to land fragmentation and landlessness as population grows.
- Some areas of developing countries are facing food shortages (famine), for example, Karamoja in Uganda, Somalia etc. In some developing countries, production exceeds food supply and thus there is a problem of famine leading to deaths making the theory applicable.

Limitations or criticisms of Malthusian population theory

To a **greater extent**, the Malthusian population theory is of limited relevance or value to developing countries in the following ways:

- It assumes constant technology which is unrealistic since technology is ever changing. The theory does not take into consideration the enormous impact of technological progress in offsetting the inhibiting forces of rapid population growth. Malthus did not see the possibility of technological advancement which has made irrigation and large scale mechanised agriculture possible.
- It assumes a closed economy, yet economies of most developing countries are open economies. Malthus ignored the role of international trade in increasing food supply. International trade enables countries with food shortages to exchange their food exports with food imports.
- Agricultural modernization is not foreseen by the theory yet this is taking place in most developing countries. This helps to increase food production and postpone the anticipated problem.
- Failure of the theory to visualise (foresee) the possibility of labour mobility from areas where opportunities are limited to areas where high wage employment opportunities exist.
- Population growth does not depend on food supply alone but also on other variables such as early marriages, fertility rates, net migration, improved nutrition and improved medical care. It is therefore, inaccurate to assert that population growth depends on food alone.
- The theory is based on the subsistence economy yet modern economies of developing countries are not predominantly subsistence any longer. Commercialization of production leads to specialisation and increased output for exchange thus averting any possibility of shortages in food supply. This too was not envisaged by the theory.
- The theory did not foresee great improvement in transport that makes it possible to transfer food from areas of plenty to areas of scarcity hence developing countries can offset the problems of food shortages.
- It did not foresee the possibility of getting foreign aid/resources from other countries. Foreign food relief aid from countries with food surplus can offset the problems of food shortages in the developing countries.
- There is no mathematical relation as regards growth in food and population. There is no proof to show that population increases in a geometric progression and food production increase in an arithmetic progression.

- The theory ignored the deliberate and scientific methods of birth control. Malthus did not foresee the possibility of applying modern family planning methods like use of condoms, vasectomy and contraceptive pills to reduce on population increase.
- Malthus did not realise that rising living standards can cause a fall in birth rates and population growth. The theory assumes that national rates of population growth increase are positively related to the levels of national income. Therefore, as national income increases, population growth rates also increase yet in many countries as national income increases, birth rates have tended to fall.

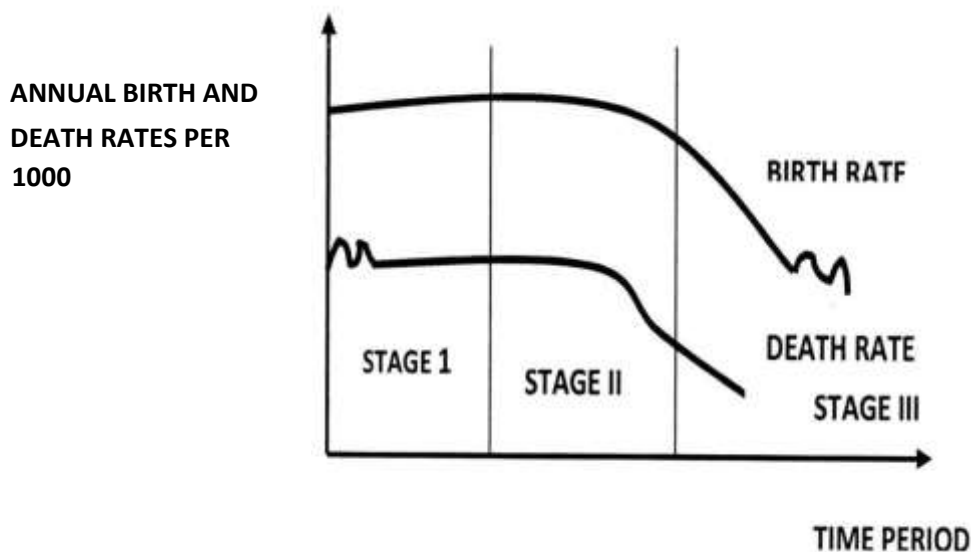
It ignored the possibility emigration to ease press on resources. People emigrate from countries which are densely populated to countries which are less populated resulting into reduced pressure on resources in the overpopulated countries.

- Malthus was influenced by the law of diminishing returns which is not always true. At times increasing amount of a variable factor, labour, to a fixed factor, land, results in increasing and constant returns not diminishing returns as the theory assumed.

Theory of demographic transition

This refers to the phasing out process of population growth rate from virtually stagnant growth characterised by high birth rate and high death rates through a rapid growth stage characterised by high birth rates and low death rates to a stable - low growth stage where both birth and death rates are low.

Illustration



From the above figure the three stages can be explained as follows:

Stage I is characterised by high birth rates and high death rates due to poverty ignorance poor nutrition, poor medical care etc.

Stage II is characterised by declining death rates and high birth rates. The death rate is low due to introduction of modern drugs, improved medical and health vies, good quality food that is available etc. Most of the developing countries like Uganda depict some of the aspects of this stage.

Stage III is characterised by low and falling death and birth rates due to high levels of education, adoption of family planning methods, improvement in income level better standard of living and reduced cultural tendencies. Many of the countries in the developed world especially Western Europe, Asia and North America depict some of the features of this stage.

The concept of under population, optimum population and over ovulation

Under population

Under population" refers to a population size that supplies insufficient labourforce relative to the existing co-operant factors leading to low average output

Or Is a situation where a country's resources exceed the existing population and some of the resources remain unutilized leading to low income per capita.

OrIs where the average output per head is below optimum because the pop insufficient to make use of all the resources.

Merits of under population in an economy

- 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 avail labourforce.
- It may lead to equity in income distribution if majority of the people employed.

Demerits of under population in an economy

- Limited or small market size. The market for goods and services is small to the low number of consumers in the economy.
- Underutilisation of natural resources / Leads to wastage of resources as some will be idle. Resources especially land are underutilised due to inadequate labour to utilise them.
- Limited labour supply /Causes labour shortage. The supply of labour is due to existence of a few people in the economy.
- Low tax revenue.
- Low output hence low economic growth rate. The rate of economic grows" low due to low levels of economic activities.
- Low level of innovations and inventions. The level of innovation and invention tends to be low due to absence of competition in resource allocation and utilization because resources are in excess of the population.
- Leads to low levels of investment or discourages investment.
- High cost of social capital per capita /High average costs of providing social infrastructure. The cost of providing social capital, say infrastructure, per person is very high where population is scarce than where population is concentrated.
- Limited specialisation. The level of specialisation is low because ire available labourforce cannot afford to specialise in a particular activity and still be able to meet subsistence needs.

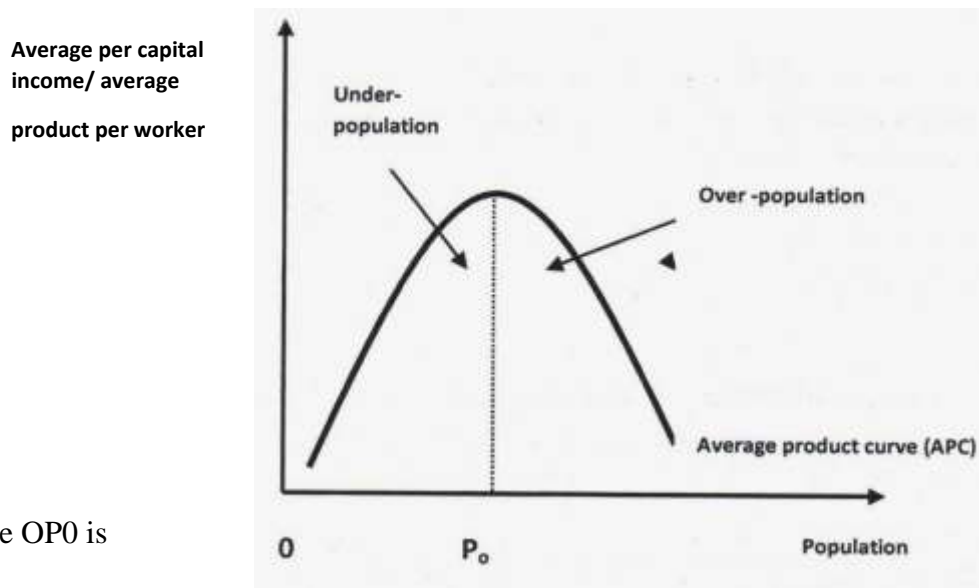
Weak national defence. The national defence tends to be weak due to inadequate supply of manpower and other resources to facilitate the management of a country's security needs.

Optimum population

This refers to the population size that provides labourforce that is sufficient to combine with cooperant factors (resources) leading to maximum output per worker (or highest per capita income per worker or highest average product per worker).

Hence a certain number of people is required to optimally utilise the available resources; below it (under-population) under utilisation of resources and above it (over population) resources are over-utilised, lustration

Illustration



Where OP₀ 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 incomes, □ Maximum output per worker.
- Limited dependence or expenditure on imports.

Over population

This refers to the size of the population that provides labourforce which when combined with the available resources, output per worker (income per capita per worker) reduces.

This is a population size where the output per person decreases as the population increase.

Causes of high population growth rates in developing countries

The rapid population growth rates in developing countries may be as a result the following factors:

- Early marriages among the youth. Many people marry and or produce clearly in life, say before the age of 21 years. This results in rapid population growth in developing countries.
- Reduced civil wars and natural calamities. This results in rapid population in developing countries as the relative calm forces people to procreate children.
- Cultural or traditional tendencies that encourage large families. In some cult children are regarded as sources of pleasure and pride to parents. Pan therefore; produce very many children in order to fulfill these traditional mores.
- High polygamy rate in society especially among Moslems. This results in population growth in developing countries among the polygamous communities.
- High poverty rate among the population. Many people produce children in or: to have old age social security later in life whereby children provide for the needs of their parents in old age.
- High level of prostitution. Many people have loose sex with several parties resulting in production of any, sometimes unwanted, children hence fast growth of population.
- Low level of literacy and inferiority complex of some women. Some woman believe that they are valuable only for their reproductive functions and that they can best retain their spouses by producing many children in polygamous familial 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.
- Limited family planning programmes in the rural areas. Many people are ignore of family planning methods; both their availability and benefits. Those that aware of their existence and benefits cannot afford to use them. This has result in limited use of contraceptives hence high birth rate and high population grow: rate.
- Decline in death rates due to improved health care. Improved medical care through effective public health programmes at all levels such as establishment medical facilities, vaccination and health awareness has reduced death rate-resulting in fast rate of population.
- High rate of immigration to developing countries due to insecurities in other countries. Due to political instabilities and limited economic opportunities.
- Some countries, many people emigrate to other countries leading to rapid population increase in the recipient countries.

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 suiting high rates of pregnancies hence high population growth rates.

- 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.
- Low cost of raising children. The cost of raising children in some countries is low due to availability of food cheaply and state provision of merit goods like education and health at heavily subsidized rates. Since child upbringing is not very burdensome to parents, they do not see need to restrain their fertility. **Economic implications of a high population growth rate**

positive implications

- High market potential. This is due to increase in effective demand by the growing population.
- High tax potential. This is due to increased investment, labourforce and consumer demand that provide more tax revenue to the government.
- High potential for labourforce. This is because of the increase in labour supply associated with the growing population.
- High potential for increased resource utilization. This is due to the high level of investment required to meet the increasing consumer demand hence increased use of idle resources.
- It is an incentive or potential for massive future investment. This is due to the increased consumer demand.
- Government is awakened to the responsibilities of providing the necessary infrastructure. This leads to increase in the level of output.
- The young population is usually innovative and creative. This is due to increase in the level of competition that results into more discoveries.
- It reduces per capita social overhead costs. This is because the infrastructure in form of schools, hospitals and roads is maximumly used.
- Initiates efforts to work harder to sustain the predominantly young population. This is because the working population strives to meet the demands of the dependants.
- High mobility of labour due to increased population pressure.

Negative implications

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

- Causes income inequality. This is due to the increase in poverty levels especially in rural areas.
- Leads to high government expenditure on provision of social services. This is due to the increasing demand for social facilities by the dependant population.
- Leads to high dependence burden. This is due to the large number of young people that depend on the working population.
- Worsens the balance of payments problems. This is due to the high level of importation to meet the demands of the population.
- Leads to quick depletion of resources due to overexploitation of the available resources to meet the rising demand of the population. It makes effective government planning for the population difficult. This is due to the high birth rates.
- It increases external resource dependence. This is due to increased reliance on foreign aid, foreign manpower and foreign technology to meet the need of the high population increase.
- Leads to limited domestic market. This is due to the high level of poverty especially in the rural areas.
- 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.
- It leads to low labour productivity. This is due to increase in the number of unskilled and semi-skilled labourforce.
- It over strains the available infrastructure like schools and hospitals. This is because the increasing population demands for social services like education and health.
- Leads to low income per capita resulting in poor standards of living.
- Leads to low capital accumulation due to low savings.
- Leads to low investment due to the high level of consumption that limits funds set aside for accumulating savings.
- Leads to political unrest and social tension.
- It may lead to inflation due to high demand for goods and services.

Significance of an increasing population

Positive implications of an increasing population

The positive implications of an increasing population are:

- Increased labour supply. As population increases, labour supply also increases as more and more people become available for employment at the existing wage
- Wider market. As population increases, the number of consumers in an economy also increases. An increasing population therefore, provides a large and ready domestic market for goods produced both locally and imported.

Increases the rate of natural resource utilisation. Resources, especially land, that were previously under and unutilised (idle) are brought to use by the existing circulation.

- Increased labour mobility. An increasing population prompts increased mobility of labour because of pressure on the existing resources in areas where population is increasing. Workers migrate from areas where there are shortages of factor inputs and wages are low to areas where co-operant factors are readily available and wages high.
- Declining social per capita. The average cost of providing social infrastructures like roads, education and health per person falls as population size rises.
- Increased innovations. The population becomes more innovative and inventive as they look for ways of increasing output using the limited available resources.
- Strong national defence. An increasing population makes it possible for a sizeable proportion of the population to specialize in production and some labourers are committed to fulltime national defence.
- Government is prompted by the increasing population to adopt appropriate policies such as land reforms, manpower planning and family planning to solve the problem. **Negative**

implications (costs) of an increasing population The negative implications of an increasing population are:

- Overutilisation of natural resources. An increasing population leads to overutilisation of resources and their exhaustion due to overstocking, overfishing and over farming by the large population.
- Widening income disparities. Income inequality increases because only a few people own means of production especially land and capital while the majority have very limited access to resources.
- Low savings and investment. The level of savings and investment decreases due to the high dependence burden. The large number of dependants on few workers leads to consumption of most of the incomes and low savings.
- land fragmentation and landlessness. Population increases more than the capacity of the available land to contain it leading to problems of landlessness and land fragmentation.
- Poor standards of living. The living conditions of the people become poorer because more and more people, especially children, share the limited resources. This results in malnutrition, congestion, poor medical care and education facilities.
- Increased government expenditure on provision of social services.
- Government expenditure increases due to the rising cost of provision of social services such as infrastructure, education and health for the large population.

Balance of payment problems. A country faces balance of payment deficits because imports are increased to meet the ever increasing consumption needs of the population

while exports do not increase at a fast rate because local output is mainly for domestic consumption.

- Increased levels of unemployment and underemployment. The level of unemployment and underemployment rises because there are more workers than can be employed by the available resources.
- Increased rates of rural-urban migration. Many people move from rural to urban centres in search of better opportunities such as social amenities and better paying jobs. This results in open urban unemployment and other evils.
- Low income per capita. Although national income increases due to increase in national output, it increases at a rate less than the rate of population growth. This leads to lower and declining per capita incomes.
- Increased social unrest. An increasing population leads to development of an idle and disorderly population because many people are unemployed, underemployed and poor and are therefore, easily convinced to cause social animosity in society, for example walk-to-work campaigns in Uganda.

Reasons for controlling population growth rates in developing countries

- To control /reduce the dependence burden. This is because a high population growth rate leads to increased dependence burden on the small working population which leads to low level of savings, low level of capital formation and low level of investment.
- For purposes of reducing unemployment. This is because a high population growth rate leads to unemployment and underemployment as the public and private sectors are not in position to create enough employment opportunities to match with the high population growth rate.
- To reduce income inequalities / to promote equity in income distribution. This is because a high population growth rate leads to high poverty levels especially in the rural areas.
- To control / reduce government expenditure on social amenities (services). This is because a high population growth rate leads to increased government expenditure on provision of social services like education and healthcare.
- As a way of improving on the Balance of payments position. This is because a high population growth rate leads to balance of payment problem due to increased import requirements to supplement domestic supply of goods.
- For controlling social costs like pollution / to minimise environmental degradation. This is because a high population growth rate leads to high social costs in form of accidents, congestion, pollution and sanitary problems which are due to the increase in the large number of people in different areas.

For purposes of increasing effective demand / market. This is because a high population growth rate leads to limited domestic market or low effective demand due to low income per capita.

- To ease planning for the population / for effective government planning. This is because due to a high population growth rate effective economic planning for the population becomes difficult due to limited resources / funds.
- To avoid overutilisation of the natural resources / to control or minimise depletion of natural resources. This is because a high population growth rate leads to quick depletion of resources due to over exploitation by the people.
- To reduce pressure on infrastructure / to minimise straining of the available infrastructure. This is because a high population growth rate leads to the available social and economic infrastructure in form of schools, hospitals and housing that are overstrained.
- To control / fight rural-urban migration and its evils (negative effects). This is because a high population growth rate leads to increased rates of rural-urban migration and its related problems of rural stagnation, open urban unemployment and development of slums.
- As a means of reducing external resource dependence and economic dependence in general. This is because a high population growth rate leads to increased reliance on foreign aid, foreign manpower and foreign technology to meet the needs of the high population increase.
- To minimise brain drain. This is because a high population growth rate leads to brain drain which robs a country of her productive labour that tries to look for better opportunities in other countries.
- To improve labour productivity. This is because a high population growth rate leads to low labour productivity especially in the agricultural sector due to the law of diminishing marginal returns.
- To fight crime and immorality. This is because a high population growth rate leads to development of an idle and disorderly population because many people are unemployed, underemployed and poor and are therefore, easily convinced to engage in crime and immorality.
- To fight / control inflation. This is because a high population growth rate may lead to inflation due to high demand for goods and services.

Population problems faced by developing countries Population

problems faced by developing countries are;

- High dependence burden.
- Unemployment and under employment.
- Balance of payment (B.O.P.) problems.
Causes income inequality.

- Exerts pressure on land. □ Results into brain drain.
- High social costs for example pollution, congestion e.t.c.
- Pressure on existing infrastructure/ over-straining the infrastructure.
- High government expenditure on provision of social services.
- Effective planning for the population becomes difficult.
- Quick depletion of resources due to over-exploitation.
- Rural- urban migration (R-U-M) and its negative effects.

Population explosion

Population explosion is the sudden and rapid increase in population of an area or country relative to the existing available resources to sustain it.

Effects of population explosion include:

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

Dependence burden

Dependence burden refers to the strain on the working population and government caused by expenditure on provision for the needs of infants, the young and the aged who are economically unproductive.

Or The section of the population which is between the age of 0 and 15 years and 65 years and above which is unproductive. Therefore reliant on the working population for survival.

Effects of dependence burden

The effects of dependence burden include:

- Leads to low labour supply.

Leads to low savings and investment.

- Leads to high government expenditure / heavy burden on government provide social services.
- Leads to low quantity of output.
- Leads to under utilisation of existing natural resources.

Dependence ratio refers to the ratio of the number of dependants to the working population.

OrIs the proportion of the unproductive population to the economically active population.

OrIs the proportion of the number of dependants to the working population.

Therefore, **dependence ratio = Number of dependants: working population**

Dependence ratio= $\frac{\text{Number of dependants}}{\text{Working population}} \times 100$

Or

Dependence ratio= $\frac{\text{Number of dependants}}{\text{Working population}}$

Dependence ratio= $\frac{\text{Unproductive population}}{\text{Economically active population}}$

Examples

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 dependence ratio.

Dependence ratio = $\frac{\text{Unproductive population}}{\text{Economically active population}}$

$$\begin{aligned} &= \frac{14,000,000 + 4,000,000}{12,000,000} \\ &= \frac{18,000,000}{12,000,000} \end{aligned}$$

Dependence ratio =3:2

Or

$$\text{Dependence ratio} = \frac{\text{Unproductive population}}{\text{Economically active population}} * 100$$

$$\begin{aligned}
 &= \frac{14,000,000 + 4,000,000}{12,000,000} * 100 \\
 &= \frac{18,000,000}{12,000,000} * 100 \\
 &= 150\% \text{ or } 150:100
 \end{aligned}$$

Question: Supposing in a country of 28,000,000 people, the number of children are 14,000,000, the aged are 6,000,000 and the working population is 10,000,000; Determine the dependence burden.

Disadvantages of a high dependence ratio include:

- Leads to low savings and low investment.
- Leads to low productivity in the economy.
- Leads to heavy burden on government to provide essential services.
- Leads to underutilisation of resources. □ Leads to low tax revenue.

Declining population

This refers to a situation where population size is falling due to need to keep families small due to migration of population to other areas.

Effects of a declining population

- Decline in aggregate demand hence reduction in market size. The demand for goods and services decreases due to reduction in number of consumers.
- Reduced pressure on government to provide social services. There is reduced pressure on government to provide social infrastructures, education and health since the number of people requiring the services is falling.
- Decline in the level of investments. The level of investment falls due to inability of market to sustain productive industries. Some of the existing industries may collapse and close down.
- Attainment of optimum. Where the economy was over-populated, a decline in population size may enable it to attain the desirable optimum size.
- Reduced levels of unemployment. As population of an economy reduces, labour supply also falls. This leads to a reduction in the level of unemployment.
- Decline in labour supply. When population in an economy declines, labour supply also decreases. This may lead to a decline in output and increase in labour costs if the economy was not experiencing unemployment.

An ageing population

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

Problems associated with an ageing population

- Declining output per capita. Output per person declines as people becomes older because peoples capacity to contribute to output declines with age.
- Declining labour supply. Labour supply in an ageing population declines as more and more people retire from work due to old age and poor health associated with old age.
- Limited mobility of labour. Labour mobility is low due to reluctance of the aged to move to new areas.
- 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 aged is high.
- Low levels of innovations and inventions. The level of innovations and inventions declines largely because the aged are reluctant to accept new ideas nor are they willing to innovate new ideas of their own due to fear of uncertainties.
- Limited market due to declining demand for consumer goods and services.
- Low levels of investments. The level of investments becomes low because ire aged are reluctant to take risks of investments for fear of incurring losses that may wipe out all the life savings.

Measures that are checking population growth rates h developing countries

A number of measures have been taken which may result into the lowering of fertility rates in developing countries. The measures include:

- Improving health facilities. Child health is being improved through establishment of medical facilities throughout the country and through mass immunisation against killer diseases and it is hoped it will reduce parents demand for many children for security purposes.
- Encouraging family planning. Efforts are being made through the mass media campaigns, to encourage family planning especially the use of contraceptives as to avoid unnecessary pregnancies. Encouraging women to participate in political and economic activities. This is 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 is meant to enable women to make rational decisions concerning their bodies and to increase the opportunity cost of child bearing.
- Encouraging education for women. The education of the girl child and women in general is being encouraged, for example, through giving women additional 1.5 points when selection of students for entry into higher institutions of learning is being made. This is meant to keep students (women) longer in schools and reduce their bearing ages.

- Sensitising the population of the dangers of large families. People, through the mass media, are being sensitised of the dangers of having large families such as inadequate resources and time to look after children effectively. It is hoped that this will encourage parents to choose small families instead of large ones.
- Setting minimum marriage age and defilement laws. The minimum marriage age is being maintained at 18 years. Marriage of and/ or sexual relations with persons below that age is illegal and is subject to judicial penalties. This delays the age at which a person becomes a parent a first time and reduces the fertility period.
- Encouraging monetisation of the economy. The economy is being monetized and subsistence production is being discouraged through provision of markets for farm produce provision of loans to farmers. Monetisation of the economy shall increase costs of raising children and may discourage parents from having large families.

Factors limiting population growth rate control policies

- 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).
- Conservation due to rigidity in cultural norms.
- Over dependence on agriculture.
- Low cost of living in the country.
- High levels of corruption.
- Poor government policy on population control.
- Political unrest in some parts of the country. □ Early marriage.

Review questions

Question 1

- (a). Explain the Malthusian theory of population.
- (b). Account for the high population growth rates in your country.

Question 2

- (a). Distinguish between under population and over population.
- (b) Account for the control of population growth rate in your country.

Question 3

- (a). Distinguish between picketing and collective bargaining.
- (b). Account for the low bargaining power of trade unions in your country.

Question 4

- (a). Examine the problems facing trade unions in your country.
- (b). Explain the circumstances under which trade unions are justified to ask for higher wages?

Question 5

- (a). Explain the objectives of trade unions.
- (b). Why have trade unions failed to achieve their objectives?

Question 6

- (a). What is meant by wage legislation?
- (b). Examine the implications of minimum wage legislation in an economy.

Labour

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

Significance of labour in the production process

- Labour creates capital or wealth from the reward it gets.
- Labour determines value. The value of a good depends on the amount of labour used to produce it.
- Labour utilises land and capital and without it, remain idle.
- The quality and quantity of labourforce, well motivated and having co- operant factors makes effective utilisation and exploitation of natural resources which raises output.
- Labour is the endfor which production is undertaken, that is, the need to satisfy human wants.

Productivity of labour

Productivity of labour is the amount of output produced per unit of labour employed (during a given period of time) i.e. it is the measure of output per unit: of labour employed.

Factors which determine the productivity of labour in Uganda

- Wages (motivation / remuneration / terms of service).
- Level of technology
- Level of skills / ability / education and training/ experience

- Availability and quality of co-operant factors;
- Quality of management / level of organisation of production process supervision
- Level of inventions and innovations
- Working conditions
- Attitude to work
- Natural ability / talent
- Political climate
- Physical ability / health conditions of workers

Factors which may lead to an increase in the productivity of labour

- Increase in the level of wages.
- Improvement in the technology / technological progress.
- Improvement in the quality of management.
- Increase in the level of skills.
- Improvement in the working conditions.
- Positive changes in attitude towards work.
- Improvement in political climate.
- Increase in the level of inventions and innovations.
- Increase in the level of specialization.
- Increase in the availability and quality of co-operant factors.
- Improvement in the health conditions of labour. □ Increase in experience.

Efficiency of labour

This is the measure of the quality and quantity of output that a unit of labour can produce in a given period of time.

Factors that influence or determine the level of efficiency of labour

- Natural ability or talent.
- Level of innovations and inventions.
- Physical ability or strength (health conditions of workers).
- Wages (motivation / remuneration / terms of service).
- Level of technology.
- Level of skills / ability / education and training/ experience.
- Availability and quality of co-operant factors.
- Quality of management / level of organisation of production process / supervision.
- Working conditions.
- Attitude towards work.
- Political climate;
- Level of specialisation or division of labour.

Labour supply

Labour supply is the number of hours of work labour is willing to work for at a given wage rate over a given period of time.

Factors that influence the supply of labour

- Health conditions of workers. When they are good, workers are active, they do not miss work leading to high supply of labour but when they are poor, workers are not active, they sometimes miss work leading to low supply of labour.
- Size of the population. When the size of the population is big, it means there are more people to work hence high supply of labour but when the size of the population is small, it means there are few people to work hence low supply of labour.
- The age composition of the population. When the majority of the population is a working population, then supply of labour is high but when few people are of working age, the supply of labour is low.
- Working conditions. When the working conditions are good, many people are encouraged to work leading to high supply of labour but when the working conditions are poor, many people are discouraged to work leading to low supply of labour.
- Political climate. When there is political stability, people feel secure to work hence high supply of labour but when there is political unrest, people are in fear for their lives hence low supply of labour.
- Trade unions' influence. Trade unions that have great influence, restrict labour supply so as to raise the members' wages but trade unions with less influence cannot restrict labour supply since there is minimal influence on employers leading to high supply of labour.
- The level of knowledge of job opportunities. When the level of knowledge is high, the supply of labour is high as more people get jobs but when the level of knowledge is low, the supply of labour is low as fewer people get jobs.
- The level of migrations. When the immigration rate is high, the level of supply of labour is high because there are more people to work but when emigration rate is high, the supply of labour is low because there are few people to work.
- Attitude of labour towards work. When the attitude is positive, people are willing to work hence supply of labour is high but when it is negative, people are not willing to work, hence low supply of labour.
- The level of mobility of labour. When the level of mobility of labour high, it means people are willing to move from one job or geographical area another hence high supply of labour but when the level of mobility of labour is low, it means few people are willing to move from one job or area another hence low supply of labour.
- The level of wages. When the level of wages is high, many people are motivated to work leading to high supply of labour but when the level of wages is low, many people are demotivated and discouraged to work leading to low supply of labour.

- The nature of the jobs. When a job is risky, people are discouraged to work for fear of contracting diseases or even losing their lives at work hence the supply of labour is low but when a job is non-risky, people are encourage to work because their lives are not in danger hence high supply of labour.
- The level of skills required in a particular job. When the level of skills required is high, the supply of labour is low because not so many people have these skills but when the level of skills required is low, the supply of labour is high because many people who have those skills.

Demand for labour

It refers to the number of workers or people employers are willing to offer jobs and retain in employment at a given wage rate.

Or It is demand derived from demand for the products labour is required to produce.

Factors that determine the demand for labour

- The level of demand for a product that labour helps to produce.
- The level of wages or price of labour.
- The level of skills of labour.
- The availability of co-operant factors, for example, land, capital etc to complement labour.
- The proportion of the cost of labour to the total cost of production.
- The possibility of substituting labour for other factors of production. □ The amount of output of labour (the productivity of labour).

Marginal productivity of labour

Marginal productivity of labour refers to the quantity of output that can be produced or realised from the employment of one extra unit of labour.

Limitations to productivity of labour in developing countries include:

- Limited capital.
- Limited skills.
- Poor techniques of production □ L limited supply of raw materials.
- Poor attitude towards work.
- Poor working conditions.
- Poor entrepreneurial ability.
- Low wages.
- Poor land tenure system.
- Physical disability.
- Unfavourable political climate.

Labourforce is the proportion of the population that is made up of the working age group, excluding full-time students and housewives. It is the total number of people of the working age group that is available for employment at a given time.

Characteristics / features of Uganda's labourforce

- 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 labourforce is not unionised.
- Some are poorly deployed to occupations which do not match their skills.

Determinants of the size of labourforce

- 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 or money wage.** This is a wage expressed in monetary terms for example euro, shillings and dollars.
2. **Real wage.** This is the purchasing power of a nominal wage.

Or

The amount of goods and services a nominal wage can buy.

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 and subsistence sector.
1. **Basic wage.** This is a wage earned by a worker after removing all allowances and medical benefits.
 2. **Minimum wage.** This is a wage set by the government above equilibrium and it is illegal to pay a worker below it.
 3. **Living wage.** This is a payment to a worker sufficient to provide basic needs.
 4. **Or**
 5. It is a reward that is adequate for a worker and family to subsist comfortably.
 6. **Subsistence wage.** This is a reward to labour that is just enough to enable him to meet the basic human needs. It is a minimum payment to a worker to induce him to hard work but not afford any luxury of life.

Methods of wage determination in developing economies

1. **Time rate system.** Wages are determined according to duration of work. The more the time spent on work, the higher the wages paid and the less the it spent on work, the lower the level of wages.
2. **Piece rate system.** Wages are determined by quantity of output produced. The more the work done by the worker, the higher the wages and a small amount work done leads to earning low wages.
3. **Individual bargaining power of labour.** Wages are determined by 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.
4. **Market forces of demand and supply for labour.** The wage rate is determined through the interactive forces of demand for labour and supply of labour till equilibrium market wage is determined.
5. 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 demand for labour, low wages are paid to workers.
6. **Collective bargaining or trade union influence.** Trade unions determine wages through round table negotiations for wages with employers. Strong trade unions are able to demand higher wages for their members compared to weak trade unions with a low bargaining power.
7. **Government policy of wage legislation.** Government determines wages through fixing of wages either at minimum below which it is illegal to pay or at a maximum above which it is illegal to pay workers. The government sets wages of civil servants using a historical

salary scale where they are graded such that top civil servants are paid high wages compared to the low cadre staff.

8. Employer's setting 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.

Some concepts under wages

- Wage freeze. This refers to the situation where wages are kept constant for a certain period of time by the government so as to check inflation.
- Wage drift. This is where piece rate earners negotiate with their employers for more allowances apart from the basic wage.
- Wage restraint. This is a voluntary restriction of wage increase where the government encourages trade unions not to increase wages so as to check inflation.
- Economy of high wages is the belief that high wages will increase the effort of the workers to an extent sufficient to compensate the employer for the greater cost of labour. Where workers have previously been insufficiently fed, ill clad and badly housed, an increase in wages would improve their efficiency.

Or It refers to a situation where wages are increased with hope that the higher the wages, the higher the labour efficiency. When workers' wages are low, an increase in wages is expected to increase their welfare and efficiency making them devote more time to their jobs.

Methods / systems of wage payment in an economy

1. Sliding scale system. This is where wages are adjusted according to the changes in the cost of living such that an increase in the cost of living leads to high wages while a decrease in the cost of living leads to low wages.
2. Bonus payment system. 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.
3. Profit sharing system. This is a situation where workers are encouraged to buy shares in the business and on top of their wages; they are entitled to dividends (profits).

Or

A mode of wage payment in which after deduction of costs of output except labour costs, from selling price, the employer shares profits with the employee in terms agreed to by both parties to the contract.

4. Time rate system. This is a method of wage payment where workers are paid according to the time they have worked for example per hour, day and month. The system involves clocking in and clocking out.

5. Piece rate system. This is a method of wage payment where workers are paid according to the amount of work done.

The more amount of work done, the higher the wages and less amount of work done, the lower the wages.

Time rate system of wage payment

Time rate system is a method of wage payment where workers are paid according to the time they have worked for example per hour, day and month.

Merits of time rate system

- Encourages hard work in terms of working overtime. This is because workers put in more effort to earn more wages leading to high output produced.
- Better quality output is produced due to constant supervision of the work and absence of hurrying.
- Proper records of time are kept for easy or correct payment. Therefore, it becomes easy to calculate the wages given to the workers for example multiplying the wage rate by duration of work.
- Workers are encouraged to report in time for work. This implies that workers are selfdriven.
- Workers are able to receive regular wage payments. Employees receive wages even during periods of temporary idleness.
- Less efficient / slower workers who take more time easily earn high wages as all workers are paid same wage.
- Minimizes conflicts between workers and employers thereby creating industry peace.

In a situation where output cannot be measured for example health and education, it is difficult to apply piece rate.

- Minimizes destruction of delicate machinery due to absence of hurrying as is the case of piece rate.

Demerits of time rate system

- Encourages laziness by the workers.
- Leads to low production of goods and services.
- Slower and less efficient workers can easily be paid more than the faster and efficient workers.
- Poor quality output is produced where there is no supervision. □ Leads to high costs of supervision and time checking.

Circumstances in which time rate method is preferable to the piece rate method of wage payment

Time rates are more satisfactory than piece rates:

- When a high quality of output is essential for example as in computer programming.
- When the work cannot be speeded up, for example, in bus driving
- When there is no standard type of work, for example, in car repair
- When care has to be taken of delicate machines, for example, in medical tests □ When output cannot be easily measured, for example, in nursing and teaching.
- When working for long hours may undermine health, for example, in laundry
- When labour is by nature a fixed factor of production which must be engaged whatever the output, for example, in secretarial and selling staff.
- When periods of temporary idleness necessarily occur, for example, in repair work.

Piece rate system of wage payment

Piece rate system is a method of wage payment where workers are paid according to amount of work done.

Merits of piece rate system

- Eliminates the need for constant supervision of the workers leading to reduced costs of production.
- Minimizes labour strikes (industrial unrest) because it limits conflicts or disagreements over payments.
- Higher output is realized because workers are encouraged to produce more so as to earn high wages.

- Promotes team work / spirit among the workers leading to increased productivity.
- Workers do the work at their own pace thereby reducing overstraining.
- It is easy to calculate the wages because output is measurable.
- Dull and slow workers are stimulated to work hard in order to earn high wages.
- Encourages innovativeness among workers so as to produce a large output of and services to earn high wages.
- Faster workers earn more wages than slow / lazy workers which minimises seating in the payment of wages.
- 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.
- It helps employers in identification of suitable workers by enabling them to remove the lazy ones and maintain workers who put in more effort.
- Tasks are completed faster since the system encourages hard work among the workers.
- Employers are protected from falsified payments since wages are directly related to the level of output.
- Output is increased and the cost per unit of a fixed factor of production employed reduces.
- Demerits of piece rate system
- Workers tend to over work themselves to earn high wages and this negative affects their health.
- Reduces the quality of work because of hurried work for higher pay.
- Leads to over production due to high output rates resulting into wastage of resources.
- A worker who genuinely misses work or falls sick is not paid for the missed. This causes wage / income instability.
- Hard working people are resented by the slow workers leading to conflicts arc income inequality.
- Leads to high risks of accidents because workers try to increase the speed of work for higher wages.
- It undermines trade union solidarity because of variations in piece rates one place to another and due to the conflicts between the hard working people the slow workers.
- Slow but careful and efficient workers are discouraged since they produce output levels (and good quality output in a long time) that earns them low wages.
- Workers may resist being transferred from one form of work where they acquired more experience to another.

Circumstances under which piece rate system is preferable to time rate system of wage payment

When it is possible to measure output either in terms of area covered or volume of output produced.

- If it leads to increased output per period of time since it motivates workers to work harder to produce greater units of output within the shortest period of time.
- When careful workers are not likely to suffer for doing quality work in lesser quantities thereby earning less than fast but careless workers who earn more producing output in large quantities but of poor quality.
- If it enables workers to become creative and innovative in order to increase output.
- When it is easy to check and avoid wastage arising from hurrying.
- When accidents at the work place can be avoided.
- When active workers who are creative or physically stronger or hardworking are not resented for producing more output thereby earning more than the other workers.
- When it is possible to forecast output and cost of production.
- When supervision of workers is not necessary, for example, when all workers know and do what they are required to do.

Theories of wage payment

1. **Wage fund theory.** This theory states that there should be a sum money put aside to pay workers.

The amount of wage given to each worker depends on the number of workers and the sum of money put aside.

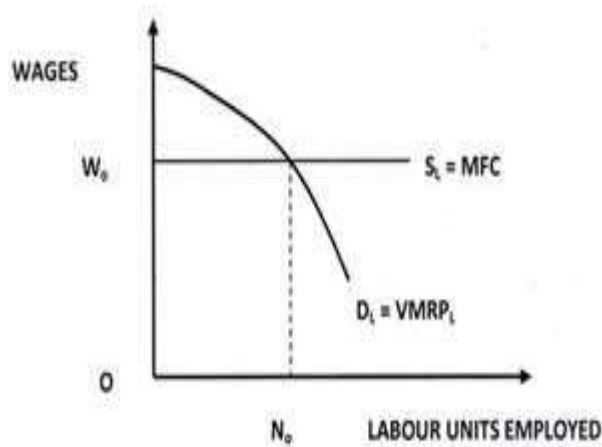
2. **Bargainig power theory.** This theory states that wages are given to workers depending on the bargaining strength of trade unions and employers. strong trade unions earn more wages for their members while weak trade unions earn low wages for their members.
3. **Residual claimant theory.** This theory states that workers should be paid their wages after all other factors of production have been paid, that is, the employer should pay rent and interest before paying labour.
4. **Iron law/ subsistence theory of wages.** This theory states that a worker should be paid the bare minimum or subsistence wage which is just enough to meet the basic needs. An increase in wages above the basic needs (subsistence needs) leads to increase in population (and this' eats' the subsistence wage way).

When population exceeds the basic/ subsistence wage, there is starvation, misery and death till the subsistence wage is restored again.

5. **Marginal productivity theory of wages.** This theory states that a **worker is paid a wage equal to the value of his marginal product** of labour increases, the wage given to labour should increase and when the marginal product of labour falls, the wage given to labour should reduce.

or profit maximization requires that a producer should not pay a wage higher than the MRP of that worker, that is, the marginal value of its marginal physical product. Therefore, position of the wage will be determined at a point where

MRP=MFC. Illustration



Where;

SL is supply of labour.

DL is demand for labour.

MFC is marginal factor cost.

VMRPI is value of marginal revenue product of labour.

ON₀ is units of labour employed.

OW₀ are the wages paid.

From the diagram above, the wage is determined at a point where the **MFC = MRP** of labour service and are equal to the average cost of the factor service.

Thus each labour service will be paid OW₀ wages for ON₀ units of labour employed.

NB: Marginal revenue product of labour is the addition made to total revenue resulting from employing of one more unit of labour.

Assumptions of the marginal productivity theory

- It assumes that there is full employment of labour.
- It assumes that all units of labour employed are homogeneous.
- Labour is assumed to be perfectly mobile.
- There is no government intervention in determining wages.
- It assumes the law of diminishing returns operates.

It assumes labour knows his marginal product.

- It assumes there is perfect competition in the labour market.
- It assumes employers are able to measure the marginal product of labour.
- It assumes workers have sufficient bargaining power to determine the wages given to them.
- It assumes output can be measured or quantified in measurable units.

The relevance/ applicability of the marginal productivity theory of wage determination To a large extent, the theory is inapplicable or irrelevant because:

(Limitations of the marginal productivity theory of wages)

- All units of labour are not homogenous and workers productivity varies. A of labour differs from another in terms of skills, education attainment physical ability. Therefore, efficiency of labour differs from worker to worker, is therefore wrong to assume that all units of labour are homogeneous.
- Labour tends to be immobile yet the theory assumes perfectly mobility, theory assumes perfect mobility of labour between different employments places. However, labour tends to be immobile both occupationally geographically.
- Perfect competition does not exist in true market situation. There imperfection in labour markets due to government interference in fixing wages
- All units of labour are not fully employed as there are cases of unemployment and under employment. There is no full employment situation of labour in developing countries due to excess supply of unskilled labour resulting in some form of unemployment and underemployment.
- Government usually intervenes in fixing wages yet the theory assumes no government intervention. Government influences wages through fixing minimum and maximum wages as well as adopting policies such as wage freeze and wage restraint.
- It ignores the role of trade unions in bargaining for high wages. For example the Uganda Medical Workers' Union normally influences wages of their members through round table negotiations with the employers. This trade union pressure influences wage rate and not marginal productivity of labour, thus making the theory not applicable to developing countries.
- It does not consider the exploitation of workers by the capitalists, for example, underpayment of the workers. Wage rate is usually not equal to the value of the marginal product of labour
- because capitalists desire to remain with surplus fits and therefore, pay workers less than the value of their marginal product. This thus makes the theory not applicable to developing countries.

The law of diminishing returns may not apply all the time. The theory is based on the law of diminishing returns but sometimes there is constant and increasing return because of inventions and innovations leading to technological development. This leads to an increase not decrease in output as more labourers are employed.

- It does not consider the level of education and training which may differ and thus influence the level of wages paid to labour. Highly educated labour earns more than less educated workers even if their marginal product is the same or even less.
- It is difficult to measure the marginal product of labour in some occupations or sectors for example the service industry like education and health sectors. Therefore, wages of workers in the service sector are determined using other factors thus making the theory irrelevant.
- It ignores historical factors in wage determination for example the inherited salary structure in developing countries. The colonial government had a wage structure for different categories of the civil service by which some categories of servants earned more wages than others. To-date government pays workers according to wage rates inherited from the colonial times and not according to marginal productivity theory of distribution as applied to wages.
- Labour cannot be completely substituted in the production process as the theory assumes.
- It ignores the supply of labour in determining wages for example the supply of unskilled labour.
- Labour and the employers cannot determine the exact value of the marginal product since output is produced by many factors. It is therefore, not possible to calculate the marginal productivity of labour separate from the contribution of other co-operant factors thus making determination of wages on the basis of marginal productivity of labour difficult.
- Employer at times use the subsistence level as a measure of wages, which may be below or above the value of the marginal product. Workers are therefore, paid according to what the employers consider adequate for maintaining subsistence needs or cost of living but not according to marginal productivity of labour.
- Bargaining for wages by individual labourers is not taken into account by the theory. Sometimes wages are determined by workers ability to bargain and workers who have stronger bargaining power earn more than those who are poor at bargaining for higher wages.

To a minor extent, the theory can be applicable;

- It assumes that employers can vary the units of labour employed and this is largely true in most occupations.
- It assumes that workers with higher marginal physical product get higher wages than those with low marginal physical product and this is true in occupations where piece rate system applies.

The government has no influence over wages in the private sector of developing countries like Uganda.
- Trade unions in developing countries are weak and have no or limited effect on wages.

Marginal productivity theory of distribution

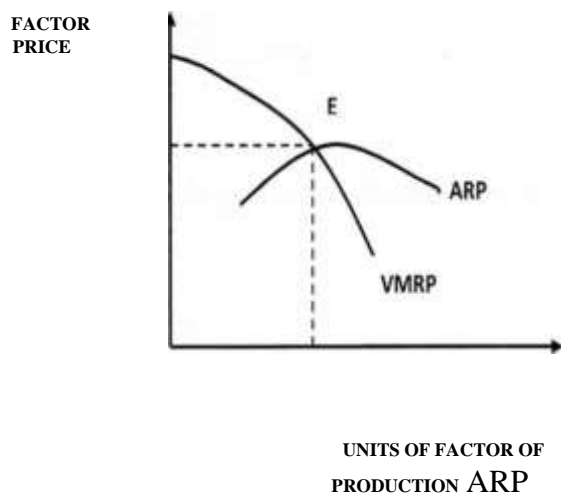
It states that a factor of production should be paid a reward equal to the monetary value of its marginal (physical) product.

Or It states that profit maximisation dictates that a factor of production should be rewarded according to the value of its marginal product.

Or It states that a factor of production must be paid a price equal to the value of its marginal revenue product.

Illustration

Where;



ARP is average revenue product.

VMRP is value of marginal revenue product

OQ0 is units of factor service employed.

OP0 is the factor price

From the diagram above, the factor price is determined at **point E** where **ARP=VMRP**. Thus each factor service is paid **OP0** price for **OQ0** units of output.

Assumptions of the marginal productivity theory of distribution

- It assumes that all units of factors of production are homogeneous.
- It assumes that marginal product of a factor of production can be calculated

It assumes that output can be quantified into measurable units.

- It assumes fair and perfect competition in the factor market.
- It assumes 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 that the law of diminishing returns operates.

The relevance or applicability of the marginal productivity theory of distribution To

large extent, the theory is inapplicable because:

- All units of a factor input are not homogenous. The assumption that all units of a service are homogeneous is unrealistic. Fertility of land, for example, differ from one piece of land to another. Likewise, efficiency of labour differs worker to worker. It is therefore, not correct to assume that the different factor units of the same service are homogeneous.
- Factors are not perfectly mobile. The theory assumes perfect mobility of factors as between different employments and places. In reality, factors are mainly immobile. There is no automatic movement of factor units from one industry or place to another.
- Perfect competition does not exist in true market situation. Perfect competition does not exist in the factor and product markets. What is in existence is imperfect competition. This leads to exploitation of factors by being paid much lower than their marginal productivity.
- Factors of production are not fully employed. The theory assumes existence of employment in the economy. Otherwise in case of unemployment factor units offer their services even at a price less than their marginal product. Therefore, forms of unemployment and underemployment exist in all economics.
- Not all factors are divisible for example a blast furnace. The assumption that factor units are divisible and therefore can be increased by small quantities does hold true. It is not easy to vary a large or lumpy factor.
- Profit maximisation is not the main motive of production always. The theory les that the entrepreneurs are motivated by profit maximization that is why units of a factor service are employed when the firm finds the marginal revenue product of the service is higher than its price. This is not true because the entrepreneur is motivated by other factors besides profits.
- Production is not a result of one factor alone hence difficulty in determining the contribution of each factor to marginal output. Production is as a result of different factors and their units working together. It is therefore, not possible to calculate the marginal productivity of each factor unit separately.
- Assumes the law of diminishing returns which is unrealistic.

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.

- Government legislation of factor prices is not taken into consideration by the theory
- It ignores the fact that factor rewards can be bargained for such as the wage rate for labour.
- It ignores the use of other factors to reward the factors of production other than their marginal physical product for example skills and experience.
- It ignores the effects of historical factors in determining factor rewards for example the inherited wage / salary structure.
- To a minor extent, the theory can be applicable;
- The payment to a factor according to the value of its marginal product can be used where output can be quantifiable.
- Factor inputs tend to be relatively homogeneous for example unskilled labour, farm land and money capital.
- Technology in many developing countries has tended to be constantly rudimentary therefore, the theory can be applicable.
- The government has no influence over factor rewards in the private sector.

Factors that determine the level of wages in an economy

- Level of education and training. Highly skilled labour is paid more % because of the high productivity and efficiency than a worker with a low of education who is inefficient and needs further training.
- Cost of living. High costs of living like in urban areas leads to high wages to a worker to enable them sustain better standards of living while low costs living like in rural areas leads to low wages given to a worker because minimal cost required to sustain a given lifestyle.
- Level of talents and natural gifts. A highly talented worker is gifted contributes more to output hence earns more wages than a worker who is talented and contributes less to output.
- Nature of the job. Highly risky jobs results into high wages given to worker-compensate them for the risk they are exposed to while less risky jobs results low wages given to workers.
- Level of experience/ responsibility. High level of experience or more responsibilities leads to high wages given to a worker because of the high level of efficiency while limited experience or no responsibility leads to low wages given to a worker since he contributes less to a firm's output.
- The bargaining strength of the individual workers. 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 power who cannot easily convince the

employer for a better pay even when they are of the same qualifications and do the same job.

- The number of hours worked (time rate system). More time spent worker at a given job leads to a high wage given to a worker because contributing more to output but less time taken on a given job, results into low wage given to a worker since the contribution to output is low.
- The strength of the workers' trade unions. Workers under trade unions with strong bargaining power earn more wages because of their ability to negotiate for better terms of employment but workers under weak trade unions are paid low wages since they cannot actively negotiate for better terms of service.
- Ability of workers to do work (piece rate system). More amount of work done high wages given to workers because of their high level of productivity but less amount of work done leads to low wages given to a worker due to the low levels of productivity.
- Government policy on wages. Government gives different wages to different civil servants in different departments. Some are paid high wages because of their
- levels of experience, education and productivity while others are paid low wages because of their low levels of experience and productivity.
- Level of discrimination in the labour market. Some employers pay high wages to some workers and at the same time other workers are paid low wages for the same occupation within the same company/firm basing on differences in age, religion, gender and political party.
- Employer's ability and willingness to pay. The higher the willingness and ability to pay the workers, the higher the wages given but when the ability and willingness to pay the workers is low, the wages given to the workers are low.
- Market forces of demand and supply of labour. 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 demand for labour leads to low wages paid to workers as the job seekers are more than the job vacancies available.

Wage differentials

This is where different wages are paid to different workers depending on differences in occupations, gender, age, race, trade unions and political party. However, the differences in wages may be between jobs or within the same job.

Causes of wage differences in an economy

- Differences in the level of education and training. Workers who spend longer periods at school such as degree holders earn more wages because of the high skills possessed than diploma holders who spend fewer years at school but are serving in the same occupation or industry.

Differences in the cost of living. Workers who work in areas where the cost of living is high such as urban centres earn higher wages to enable the workers to attain reasonable welfare than those serving in areas where the cost of living is low such as rural areas.

- Differences in the level of talents and natural gifts. Highly talented workers such as Musicians, painters, professional footballers and athletes' earn more wages because of their innate abilities that make them contribute more to output than the less talented workers even in the same occupation whose contribution to output is low since they are gifted.
- Differences in the nature of the jobs. Workers employed in highly risky jobs such as pilots and miners are paid high wages than those who work in less risky jobs such as white collar jobs, in order to compensate workers serving in risky jobs for the high of health which they bear.
- Differences in the level of experience or seniority or responsibility. Workers who have worked for long in the same occupation earn high wages than those who have just joined the industry because senior employees need limited further training and supervision.
- Differences in the bargaining strength of the individual workers. Workers who are more eloquent in asking for higher wages are paid much more highly because of their ability to convince employers to pay them high wages than the less eloquent ones are poor at bargaining for wages.
- Differences in the number of hours worked or time spent on the job. Workers work longer hours put in more effort and produce high output hence earn more income than those who put in less effort by working for shorter hours when the time rate method of paying wages is used.
- Differences in the strength of the workers' trade unions. Workers that belong to strong trade unions, that are capable of negotiating for wages for their members, higher wages than workers who belong to weak trade unions or un-unionised workers that cannot bargain for high wages.
- Differences in the ability of workers to do work or differences in quantities output produced. Workers who are hardworking produce large quantities of work therefore earn higher wages than the lazy workers who produce lesser quantities of output when the piece rate method of paying wages is used.
- Differences in government policy on wages. Government pays different wage rates to different officials even when the officials have the same levels of education, experience and seniority. This is done to attract highly skilled workers to a particular industry or to promote integrity of the workers who are well paid.
- Differences in the elasticity of demand for the final product that labour helps to produce. Workers who produce products that are demand inelastic earn higher wages than those who produce products which are demand elastic. This is because prices of products which are demand inelastic can be increased in order to earn higher wages for the workers that produced them whereas it is not possible to increase prices for products which are elastic in demand.

- Discrimination in the labour market in terms of race, sex, tribe or region Workers who are favoured by their employers on account of their race or tribe or religion or sex earn higher wages than those disfavoured by the employers even though they are doing the same job.
- Differences in employer's ability and willingness to pay. Different employers have different abilities to pay and workers being employed by the different employer or occupations earn differently.
- Differences in the elasticity of supply of labour to an occupation. Labour w inelastic in supply to an occupation such as highly skilled labour earns higher wages than labour which is elastic in supply to an occupation such as semi-skilled and unskilled workers especially when forces of demand and supply of labour influence wage rate.
- Differences in the degree of substitutability of labour by machines. Labour which is easily substitutable by machines such as unskilled labour earns lesser wages than professionals who are not easily substitutable by machines because their work involves either a very high degree of human touch or judgement. **Reasons for low wage levels in an economy: A**

summary

- Low level of education and training / low labour skills,
- Low cost of living especially in rural areas, □ Low level of (limited) talents and natural gifts, □ Less risky nature of the job.
- Low level of experience/ responsibility.
- Low bargaining strength of the individual workers.
- The limited number of hours worked.
- The limited strength of the workers' trade unions.
- The inability of workers to do work.
- Negative government policy on wages for example wage freeze and wage restraint to control inflation.
- High level of discrimination in the labour market.
- Low employer's ability and willingness to pay.
- Excessive supply of labour in relation to demand for labour.

Wage legislation

This refers to the government policy of fixing wages either maximum wage set below the equilibrium wage above which it is illegal to pay (employ labour) or minimum wage below which it is illegal to pay (employ) workers.

Therefore, **maximum wage legislation** is a government policy of fixing a wage rate below the equilibrium wage above which it is illegal to pay wages.

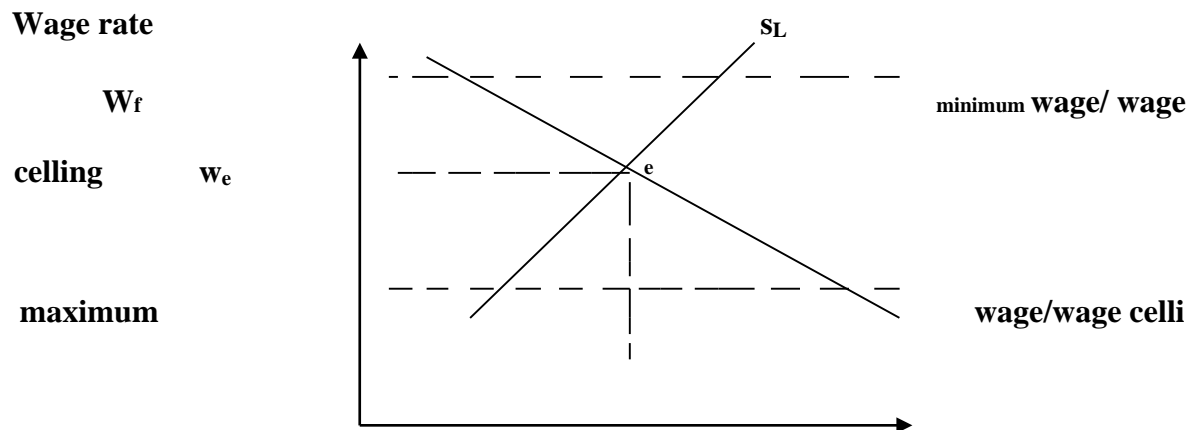
Minimum wage legislation is the setting of wages by the government above the equilibrium wage below which it becomes illegal to pay the workers.

N.B A **maximum wage** refers to a wage set below the equilibrium wage above which it is illegal to pay (employ labour).

While

A **minimum wage** is a wage set by the government above the equilibrium below which employers are not supposed to pay the workers. It aims at avoiding exploitation of the workers.

Illustration



Objectives / reasons for legislation of a minimum wage

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

- To encourage labour mobility. Minimum wage legislation is aimed at increasing inter sectoral mobility of labour, say, from the private to the public sector.
- To expand the demand for goods and services. Minimum wage legislation increases the purchasing power of workers hence increased demand hence increased standard of living of the workers.
- 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.
- To increase labour productivity or efficiency. Minimum wage legislation enables workers to save for investment and this increases the productivity of the economy.
- 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.
- For political support. Minimum wage legislation aims at winning political good will and support from the workers who may fear a change of government because change of political leadership may put into power leaders who are not sensitive to workers welfare.
- To encourage savings or capital accumulation by the workers. Minimum wage legislation increases the level of savings and investment in an economy thus increased output.
- To attract labourforce by reducing voluntary unemployment. Minimum wage legislation is aimed at attracting labour from other sectors of the economy into the public sector.
- To reduce labour instability such as moon lighting- a situation in which a worker holds more than one job simultaneously in order to make ends meet. Minimum wage legislation aims at making labourforce more stable as it avoids problems of labour instability such as absenteeism and moonlighting in order to make a living.

Effects of a minimum wage in a market economy

Positive effects

- Results into increased savings and investment by workers.
- Helps workers to meet the increasing cost of living.
- Promotes equity in income distribution when rationally implemented.
- Helps fight malpractices like corruption and moon lighting.
- Leads to increased government popularity.
- Leads to increased demand for goods due to increased incomes.
- Protects workers from exploitation by employers.
- Leads to increased efficiency of the workers.
- Leads to increased labour supply or reduced voluntary unemployment.
- Leads to reduced brain drain.
- Minimises labour unrest thus promoting industrial peace.
- Promotes mobility of labour.
- Leads to increased revenue to government through taxation.

Negative effects

- Leads to excess supply of labour in relation to its demand.
- Increases the costs of production due to high labour costs.
- Results into technological unemployment as employers replace labour with machines due excessive demand for a high wage.
- Worsens the income gap when not equitably implemented. 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 earnings for workers in the sectors.
- Encourages rural-urban migration and its effects. Minimum wage legislation causes imbalances in income gap between rural and urban centres since formal employment which benefits from minimum wage legislation is rural based. This leads to influx of labourers from rural areas to urban areas in quest for high paid wage employment.
- Leads to cost push and 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.
- Discourages investment resulting into low entrepreneurship due to low profits. Investors are discouraged from investing in the economy for fear of high costs of production resulting in low profits or even losses.
- Causes budgetary deficits. A high minimum wage for public sector workers increases government wage bill and may cause government to incur a budget deficit.

Question: Assess the effects of a minimum wage policy in an economy.

Effects of a maximum wage legislation in a market economy

Positive effects of maximum wage legislation

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

Negative effects of maximum wage legislation

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

Trade unions

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

Or it is an association of workers formed to achieve common objectives like fighting for higher wages for the workers, improved working conditions and improved welfare.

Therefore, a trade union is formed by employees to ensure collective action against employers. Examples of trade unions in Uganda include:

- Uganda National Teachers' Association (UNATU).
- Uganda Law Society (ULS).
- Uganda Medical Workers Union.
- Uganda Railways Workers Union.
- Makerere University Academic Staff Association (MUASA). □ National Organisation of Trade unions (NOTU).

Types of trade unions

1. Professional / craft trade unions

These are associations that cover all workers with particular skills irrespective of the company or industry in which they are employed.

Or

These are associations of workers with similar skills (those who perform similar tasks). The members may work with different industries or places. For example Uganda the National Teachers Association.

2. Industrial trade unions

These are associations of workers that bring together all workers in a particular industry irrespective of their skills. For example the Uganda Medical Workers Union .

3. Company trade unions

These is an association of workers of a particular company or factory or firm. It presents any worker of the company in question e.g. The Uganda Railway Workers Association.

4. General trade unions

These are unions of workers from different establishments, companies, occupations or skills from all associations of trade unions e.g. the National organization of Trade Unions in Uganda (NOTU).

5. Open shop trade unions

These are trade unions that accept all workers irrespective of their skills, that is, they do not put conditions or restrictions to workers who seek for membership.

Are trade unions where the employers do not require potential employees / workers to be members of a given labour union.

6. Closed shop trade unions

These are trade unions where membership is restricted or confined to workers with particular skills. They impose restrictions on workers who seek membership. They aim at maintaining a high quality of the labour so as to restrict its supply to ensure high wages for example the Uganda Law Society.

Or Are trade unions whose members have specialised professional training in a given for example Uganda Law Society, Uganda National Teachers Union, Uganda Medical Workers' Union among others.

Or Are trade unions in which employees must be members in order to obtain and in employment. Recruitment of members can also be restricted to possession of particular qualifications

acceptable to the union, for example, law (Uganda law Society) and medicine (Uganda Medical Workers' Union).

Or Is the type of a trade union where labour supply or number of workers or membership is highly restricted and the trade union fights for the rights of the registered members.

Functions of trade unions

- (Collective) bargaining for better wages. It is the responsibility of trade unions negotiate with their employer for pay increases to match with the economic conditions the time such as increased cost of living; increased worker productivity and increased employer profitability.
- Negotiating for better conditions of work. They negotiate for the improvement working conditions and fringe benefits such as better housing conditions, longer holidays or shorter working hours, cleaner and safe working environment.
- Protection of (protecting) members against unfair treatment. They protect workers against unfair treatment by employers through methods such as unjust dismissals, discriminative payment of wages and unfair promotions.
- Advising government on planning. Trade unions advise government on policies as minimum wages, wage freeze, wage restraint, manpower planning, labour employment policies.
- Improving members' skills through education. Trade unions educate members that members skills improve. This is attained through organizing seminars for members and

giving members scholarships or bursaries out of union funds to enable members to pursue studies in institutions of higher learning.

- Providing an effective means of expression for the workers' views in society

Objectives of trade unions

- To demand for better working conditions, trade unions aim at enabling their member to enjoy better working conditions e.g. have a clean and safe working environment. They achieve this by representing their affected members in the negotiations for the better conditions of service.
- To bargain for wages collectively / To negotiate for better wages. The unions aim at negotiating for wages for their members. This is always when the cost of living increasing or when the prevailing wages can't provide an acceptable standard of living. This they achieve through collective bargaining and other tools.
- To protect workers from abrupt or unfair dismissal / To protect members from unfair treatment by employers. Trade unions aim at ensuring some degree of job security for the members. They achieve this through intervening with appropriate tools when members are unfairly dismissed, their employers.
- To improve the skills of their members. They aim at ensuring that their members have high productivity so that they are employable. They achieve this by conducting regular workshop and seminars /short courses to enhance the skills of the members.
- To advise government on issues pertaining to manpower planning (labour and wages). They achieve this by rendering advisory services to the government in forecasting and training the manpower needed by the country -currently and in the future.
- To advocate for the human rights of the workers. Trade unions are set to agitate for basic human rights for the people in the country and as critics for government in the country. This they do by forming /sponsoring political parties and pressure groups' for example the labour party of UK.
- To forge unity among workers / To unite workers. Trade unions are formed to devise ways of creating sense of unity among all workers such that they are not exploited by the profit hungry employers'. This they achieve by consistent membership in the unions. They maintain old members and encourages new workers to join.

Methods / tools / instruments / weapons used by trade unions to achieve their objectives

The methods used by Trade unions to demand for higher wages or any other objectives are either peaceful or violent. The violent methods are usually used as means of last resort. The methods used include.

- Collective bargaining. This involves peaceful round table negotiations/ discussions between employers and representatives of workers or trade unions regarding increasing in wages and improvement in conditions of work.

- Go slow method. This involves reduction in work effort / number of hours worked that is workers use time wasting techniques while at work. The purpose is to reduce output and cause losses to the employer so that he or she is forced to respond to the demands of the workers.
- Sit down strike. This is where workers report for duty but they do not do any inductive work. They put down their tools and simply sit down until management addresses their problems.
- Go on strike /industrial action/violent strike /destructive method. This is the strongest tool of trade unions .It is usually the tool of last resort. It involves the workers abstaining from work and becoming destructive to life and property till when they are listened to, for example by burning down the industrial plant.
- Sabotage / media wars/ boycotts and decampaigning. This involves the trade union officials persuading clients of the producers' product not to purchase any more. They may put negative campaign messages in the newspapers, on television, and other public media in an attempt to spoil the reputation of their employer.
- Picketing. This is the act of physically stopping members of union who may be loyal the employer from working even if it necessitate bearing them up. The employer is left in isolation until he respects the demand of employees.

Or Is a situation where some members of a trade union of a given firm or institution are put at the entrance to stop any worker(s) from entering to work.

OrIs a situation where some workers of a trade union are put to monitor the gates of the production unit so that no worker is allowed to enter or work as agreed by the trade union.

- Mediation/industrial arbitration. This involves use of an influential body or person to both the workers and the employers in order to find a solution to the problem.
- Abduction of employer's officials. Here a key member(s) of management is/are abducted and treated like a hostage (s).this is common with those officials who reluctant or hostile to the demand of the employees, to save the abducted individuals the employer respects the demand of the employees.
- Demonstration. Here the workers make posters or banners describing their grievance and move around or in town appealing for public sympathy .The main intention is to make the
- problems public .In order to save the image of the company the employers is the demands of the employees so fast if they are genuine.
- Closed shop. Here the trade union highly restricts the supply of labour in a given field or profession by setting strict conditionality to membership (i.e. possession of particular skills for membership) .Their skills become scarce and they easily ask far higher wages from employers.

The tools used by management / employers to counter the actions of trade unions

1. Collective bargaining with the trade unions members
2. Lock out, that is, the employer may lock the union members from entering his or her premises in order to avoid destruction.
3. Use of strike missionaries, that is, employer may hire spies from and among employees to give him/her information about trade union activities and plans.
4. Government assistance, this involves the employer approaching government seeking for assistance.
5. Arbitration .i.e. use of an independent and influential persons or body reconciles the employer and the trade unions members.
6. Use of substitute workers, that is, the employer may ignore the striking workers and he or she employs alternative staff until the workers abandon their derr.sit .In most cases the functional workers are asked to reapply.
7. Use of the policy and other organization, here the employers seek the service of the police or army to stop demonstrations and violent strikes.

The basis of demand for wage increments by trade unions

(Reasons why trade unions demand for higher wages)

1. An increase in the cost of living. A considerable increase in the cost of living forces trade unions to demand for a pay rise so as to match wages with the c living.
2. Higher wages being offered to workers of a similar industry. Trade unions demand for increased wages is justified when workers in similar firms are earning higher wages than them, the workers in the low wage earning firm ask for wage, increases for purposes of wage parity (uniformity).
3. Abnormal profits earned by the employer. A trade union can prevail on the employer to raise wages for their members when the employer is earning substantial (high) profits.
4. Increased labour productivity. An increase in workers' productivity forces tri; unions to demand for increased wages so that workers increase their gain fro-increased productivity by having their wages increased.
5. Wages offered being lower than or below the government set wage. Trade unions can take industrial action against the employer to force him to honour the government legislated minimum wage.
6. Inelastic demand for goods of that particular industry. In circumstances where demand for products that labour produces is inelastic, trade union demand for wage increases receives favourable consideration by the employer.
7. Increased risks on the job. Trade unions are justified to demand for increased wages for their members to compensate members for the risks they go through
8. Failure to effect the agreed upon periodical wage increases. Employers usually agree to offer workers regular pay rises but later refuse to honour the agreements, making trade unions justified to take industrial action to force the employer to hour the agreement.

9. Workers' acquisition of better education and offering higher skills. Trade unions demand for pay rise for members when members' skills improve so as to compensate members for the costs incurred and time spent in acquiring more skills.
10. Inelastic supply of labour of a given industry. Trade unions are justified to ask for higher wages when the supply of labour is inelastic i.e. where labour is scarce and the employer can hardly produce goods without it.
11. Increased workload or hours of work and other responsibilities. Trade unions are justified to demand for pay increase to compensate the members for doing more work than previously.
12. An increase in prices of products produced by the workers. Trade unions can demand for a wage increase when a rise in the price of the product labour helps to produce does depress quantity demanded relatively little. This for example gives electric power workers strength to demand for a pay rise compared to shop workers in a single departmental store.

Conditions under which trade unions are justified to demand for wage increases

Question: Under what situations or circumstances are employees justified to demand for wage increments?

Ans N.B, study the circumstantial words.

1. When there is an increase in the cost of living. Here trade unions are justified to request for wage increments in order to enable employees adjust to the increasing cost of living .This is to help the members to maintain a given level of welfare.
2. When higher wages are offered to workers of a similar industry. When workers in a similar industry earn higher wages, trade unions demand for increase in wages. This is because workers have similar qualifications and they do similar related work.
3. When high or abnormal profits are earned by the employer. When there is a substantial increase in the level of profits, it implies that employees are working hard therefore they demand for higher wages to have a share on the fruits of their hard working.
4. When there has been increased labour productivity. Trade unions demand for higher wages when output per unit of labour increases. The increase in productivity results into higher sales and revenue and therefore workers wish « share part of this increased revenue.
5. When the wage being offered are lower than or below the government set wage. Workers are justified to demand for increase in wage such that their wage equated to the minimum wages legislated by the government.
6. In case of inelastic for goods of that particular industry. When the demand for the final products becomes inelastic, workers are justified to demand for high wages because the employer can easily meet the increase in wage by increasing prices without losing out on sales.

7. In case of increased risks on the job. When the hazards associated with the job increase, workers demand for higher wages as compensation to the exposure high risks.
8. In case the employers fail to effect the agreed upon periodical wage increase. Most when the contacts state periodic increase in wages and therefore employers fail to implement this, workers use their unions to demand for higher wage.
9. When the workers acquire better education and offer high skills. Incase: skills of workers improve due to further education and training, they are justified demand for higher wages .The main aim is to demand wages that match their upgraded skills.
10. When the labour supply becomes inelastic. When the supply of labour is inelastic, employees are justified to ask for higher wages i.e. where labour is scarce and the employer can hardly produce goods without it.
11. When there has been increased work load or hours of work. When workers spend more time at the place of work, they ask for higher wages as compensation to the leisure hours foregone for work.
12. When there has been an increase in prices of products produced by workers. Increase in the price of the products which employees help to produce leads to increased sales revenue thus employees ask for a share from increased revenue.
13. When the workers feel that wages being paid to them are too low com to the services they render. When members feel that the employer is exploiting them by paying them less than they deserve they can decide to take industries action.
14. When the wages bill a small percentage of the total cost of production of the firm, here employees feel cheated and they demand for higher wages as a request for fairness in this case they are justified to ask for higher wages.

Characteristics of trade unions in developing countries

- Most lack permanent structure i.e. they are amorphous, they basically lack clear objectives.
- They basically have limited or small membership, that is, many unions have few members.
- They are mainly weak financially, that is, many have limited funds.
- Many unions experience frequent political interference, that is, they are largely influenced politically .
- The mainly suffer from wide spread discrimination.
- They basically have a low bargaining ability.
- Most of the trade unions have restricted membership.
- Many trade unions have inactive members.
- They are mainly urban based.
- Mainly skilled and semi-skilled membership. □ Mainly have poor leadership.

Factors affecting the strength of trade unions

1. Amount of strike funds. Trade unions that have adequate funds to finance their operations such as sustaining members during long periods of strike action are stronger than trade

unions with inadequate funds. The financial position of unions is dependent on members' payment of membership and subscription fee as well as level financial accountability.

2. Degree of government interference into union affairs. Trade unions into whose affairs government interferes, by for example appointing their leaders or illegalizing union activities or dismissing either members or militant leaders from jobs are weaker than those into whose affairs government does not interfere.
3. Degree of organisation. Trade unions whose members are divided on sectarian grounds such as on the basis of tribe or religion or political affiliation are weak whereas trade unions which are organized on the basis of workers economic interests as well organized and strong.
4. Degree of unionisation. Trade unions in industries or firms where not all workers are members (open shop unions) are weak because of possibility of non-members stealing a march by negotiating independent wage bargains while where the trade union can speak for all its members, employers know an agreement can be honoured and such unions are strong.
5. Leadership skills and commitment. Trade unions whose leaders are committed to the advancement of members' interests and whose leaders do not only know labour laws but also have negotiation skills are strong while trade unions whose leaders are either unskilled or are opportunistic and use trade unions as instruments for the advancement of personal interests are weak.
6. Level of unemployment. Trade unions are very strong during periods of full or near full employment but weak during periods when the economy is experiencing high levels of unemployment because trade unions demand for increase in wages can be met by laying off of workers and recruitment of new ones from the pool of the unemployed.
7. The level of productivity of members. Trade unions with highly productive members such as manufacturing industry workers, are stronger than those with members that are little productive such as agriculture sector workers. This is because the latter's taking up of industrial action against the employer does not lead to significant reduction in output. Therefore, demand for increased wages and better conditions of work by the latter can be ignored whereas for the former cannot be ignored.
8. Elasticity of demand for the products that members produce. Trade unions that produce products that are inelastic in demand (such as power sector workers) are strong while trade unions that produce products that are elastic in demand (such as domestic appliance industrial workers) are weak because there is less disruption the production process in case they take industrial action in form of a strike.
9. Prevailing economic performance. Trade unions are stronger during periods economic boom but weaker during inflationary periods because during inflation period trade unions demand for increased wages fuels inflation while during a boom employers accept trade unions demand for increased wages.

10. The elasticity of supply of labour (members). Trade unions which are made up members that are elastic in supply such as unskilled labour are weaker than unions with members that are inelastic in supply for example skilled labour.
11. The elasticity of demand for labour and substitutability of labour. Trade unions with members whose demand is inelastic and whose members are not substitutable by co-operant factors are stronger than unions with members whose demand is elastic and can be easily substitutable by other factors especially machines.

Problems faced by trade unions in developing countries (factors that limit the ability of trade unions to raise wages)

1. Poor leadership (limited leadership skills). The leadership of trade unions do not have the necessary skills to manage them well. They have limited organization and mobilization skills. They therefore fail to consolidate the relationship between workers in the different unions. This limits their ability to convince employers to raise wages.
2. Small/ limited membership or low level of unionisation. Many trade unions do not have all workers of the industry as members partly due to apathy and partly due to target working. This makes it difficult for union leaders to negotiate with employers as representatives of all workers.
3. Limited funds. Trade unions do not have enough financial resources to fund their activities, for example, inadequate funds to sustain strikes. This is because most of the members are low income earners and are not able to pay reasonable amounts of subscription and membership fees.
4. Limited skills of members. Many of the trade union members are not trained. They do not have specialised skills. They are basically substitutable i.e the employers can replace them any time. They thus fail in their struggle to have a better pay.
5. High levels of unemployment. The level of unemployment in developing countries is so high due to factors such as seasonal variations in climate, change techniques of production from labour to capital intensive techniques of production and other factors. The trade unions find it difficult to press for higher wages for members for fear of being laid off from work since there are many unemployed people who are willing to work at even lower wage rates.
6. Low demand for products produced by members of the trade unions. This is mostly due to the high levels of poverty in most developing countries. This affects the sales and revenue of the employer. The employer is thus unable to raise enough money to improve wages of his employees thus the failure of the union to raise wages.
7. Low demand for labour. Some employers have limited demand for workers because they can easily use machines, for example, some firms can easily substitute the workers with machines that are more efficient. They thus refuse to raise the wage of their workers and this renders trade unions weak.
8. High levels of corruption (low level of accountability). The union members especially the leaders receive bribes from the employers. They thus work against (sabotage) the activities of the unions. This leads to failure of achieving the general demands of the unions.

9. Poor communication /poor infrastructure. The poor infrastructure hinders the passing of information among members and between unions .It also limits the co-ordination of union activities across the entire country. This leads to failure of trade unions in developing countries.
10. Government (political) interference into trade union affairs. Government interferes into union activities by influencing the election of union leaders and by threatening to sack union members and leaders. This is in particular the case with public sector workers.
11. Poor organisation of trade unions (disunity of members). Many trade unions are afflicted by the division of members on sectarian grounds such as on the basis of religion, tribe and political affiliation. This makes it difficult for union members to come together solidly under one body.
12. Inelastic supply of labour. The supply of unskilled and semi-skilled labour in Uganda is inelastic. Since union leaders cannot control the supply of labourers into an industry, by for example limiting entry into an occupation by specifying minimum entry requirements, it makes it hard for them to negotiate for a fair wage for their members.
13. Low productivity of members.
14. Apathy or ignorance of workers of their rights.
15. Poor economic performance (low profitability of firms)
16. High proportion of the wage bill to total costs.
17. Existence of transitory incomes (availability of alternative sources of income or limited commitment of members).

Question

1. a) Mention the differences between trade unions in LDCs and those in MDCs.
b) Explain the factors limiting the ability of trade unions to raise wages in country.

The role of trade unions in the development of Uganda's economy

positive role

- They enable members secure better positions leading to greater productivity
- They promote the human rights of the workers hence improving the productivity of the members.
- They help in bringing about governance which leads to political stability.
- They help in reducing income inequalities to ensure improved demand for goods and services.
- They help workers earn high wages and hence encouraging them to supply greater effort in production.
- They advise government on manpower planning ,employment policies arc wage policies .
- They promote unity among workers thereby enhancing team work and greater productivity.

Negative role

- They increase the cost of production through increasing wages and this leads to cost push inflation.
- They organize strikes that are destructive to life and property
- They discourage foreign investment because they make labour expensive
- They promote exploitation of consumers due to high prices set by employers in order to raise the high wages demanded.
- They worsen income inequality especially when their activities are fairly distributed.
- Some of their activities promote political instability.
- They lead to low production of goods and services or shortage commodities in the market for example when they organize sit down strikes
- They worsen the unemployment problem because they make employer prefer the use of machines.

Circumstances under which trade union activities in an economy are undesirable

A trade union as an association of **workers** is supposed to use peaceful or forceful means to safeguard the interest of workers. However, some of the rights of trade unions may be misdirected and their activities become undesirable if:

- If trade unions demand for higher wages than the value of their output and the increased wages lead to increased cost of production which forces the produce out of market.
- When trade union activities sabotage government policies such as wage freeze, wage restraint and maximum wage legislation.
- When union activities are likely to cause inflation due to increased costs production that leads to increase in prices of goods and services.
- If their demands create wider income inequalities for example, by making unionized workers to earn much higher wages than ununionised work;, workers in weaker trade unions.
- If the level of employment falls because of union activities, for example, discouraging investment due to high costs of labour or on reduction of employed labourforce through substitution of labour by machines so as to reduce labour costs.
- If the activities are politically rather than economically motivated, for example when trade unions strike in order to demand for the resignation of a government from power instead of striking to demand for wage increases and better conditions of work.
- If their activities lead to a reduction of output and reduction in economic growth due to need to reduce the number of workers employed and reduce labour costs.
- If their activities promote opportunists such as unscrupulous or unserious union leaders who use unions as instruments for advancement of self interests such a fame political gain or promotion to other higher trade unions.

