S.6 ECNOMICIS NOTES

TOPIC: The development process and Choice of a development strategy

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Development process

This refers to a multi-dimensional process which involves increase in income per capita over a long period of time accompanied by general improvement in the standards of living.

Development strategy

This refers to a broad policy guideline taken and followed by the government/country in order to achieve the set goals of development.

OR

It refers to a set of policy measures taken by the government to achieve long term objectives for national development.

Economic policy

This refers to a statement of objectives and methods of achieving those objectives by the government, private sector and business community.

Choice of development strategy

This is defined as the search for an alternative course of action which leads to the development of an economy.

Development strategies for developing countries

1. Industrial development strategies

Strategies of industrial development include:

- ❖ Import substitution verses export promotion industrial development strategy.
- ❖ Small scale industries verses large scale industries.

Import substitution verses export promotion industrial development strategy

Import substitution/inward looking industrial development strategy

This refers to an industrial development strategy where local industries are established to produce commodities that were formerly imported from other countries.

OR

It refers to a strategy of industrial development where production is undertaken to produce formerly imported goods for the domestic market in order to minimise the outflow of foreign exchange.

The aim of this strategy is to minimise balance of payment deficits by reducing the outflow of foreign exchange inform of import expenditure.

An import substitution industry refers to an industry established to produce commodities that were formerly imported from other countries.

Requirements of the import substitution strategy

- Adequate industrial raw materials.
- Adequate supply of skilled manpower.
- Large market for industrial products.
- Well-developed transport facilities.
- Reliable power supply to run the industries.
- Provision of investment incentives such as tax holidays, tax exemptions and credit facilities.
- Reduction of taxes on imported raw materials.
- Protectionism of the import substitution industries by imposing high tariffs on imported goods.

Ways of protecting the import substitution industries/infant industries.

- Banning of importation of substitutes to the domestically/ locally produced goods.
- Imposition of high import tariffs/duties.
- Quality control measures.
- Giving tax incentives to the **infant industries**.

- ❖ Use of Import quotas.
- ❖ Use of import licenses.

N.B. Infant industries are industries in the industrial sector that have just started operating and incur high average costs of production.

Reasons for adoption of import substitution strategy of industrial development

- ❖ To reduce economic dependence. Import substitution industrialization aims at reducing the reliance on imported goods by locally producing the formerly imported goods.
- ❖ To save foreign exchange that would be used to import goods. Import substitution industrialization aims at reducing foreign exchange expenditure on imported manufactured goods.
- ❖ To facilitate increase in resource utilization. This through increased production in the various industries and high demand for raw materials by the established industries.
- ❖ To develop the local labour skills. Labour skills are developed through the training facilities provided by the industries to enable labour handle the modern machines used in production.
- ❖ To create more employment opportunities. Gainful employment opportunities to an ever increasing labour force are provided through increased investment and production in the industries.
- ❖ To improve the balance of payment position. Import substitution industrialization aims at correcting the BOP position by reducing the volume of imported manufactured goods and increasing foreign exchange earnings from exports in the long run.
- ❖ To facilitate technological transfer and development. Import substitution industrialization aims at enabling the movement of new and better techniques of production by the foreign investors from developed countries through the use of capital intensive techniques of production in the industries.
- ❖ To accelerate economic growth. It stimulates investment in industries which increases the volume of production of goods and services and accelerates economic growth.

- ❖ To stimulate the expansion of infrastructure. Import substitution industrialization supports the establishment of the basic infrastructure such roads, power supply among others to facilitate mobility of factor inputs and production in the industries.
- ❖ To facilitate development of other sectors through linkages. The import substitution industries use raw materials from other sectors such as agriculture which gives rise linkages that induce growth in other sectors.
- ❖ To check on imported inflation with its evils. Production of goods locally reduces importation of goods from countries experiencing inflation and this checks on imported inflation in the country.
- ❖ To increase government revenue from taxation. The government levies taxes on the profits of import substitution industries and the workers in these industries and this increased tax revenue greatly contribute to the government revenue.

Advantages/cases for import substitution strategy of industrial development

It improves the balance of payment position of the country. The strategy results into a reduction on importation of industrial goods which reduces import expenditure and improves the balance of payment position.

It increases employment opportunities in the country. The establishment of local industries create more jobs for the people such as engineers, technicians, business mangers among others and this helps to reduce the level of unemployment.

It promotes the development of basic infrastructure. As the strategy develops, there is need to develop infrastructure such as improved roads, ware houses, insurance and banking services among others to serve and support the established industries.

It reduces the level of foreign dependence. By locally producing formerly imported goods, self-sufficiency is attained in the economy and this reduces foreign economic dependence and its associated disadvantages.

It reduces imported inflation and its associated evils. Production of goods locally reduces importation of goods from countries experiencing inflation and this checks on imported inflation in the country.

It promotes the development of local labour skills. This is achieved through organizing training workshops, seminars and internship training programmes to improve the efficiency of workers and increase the production of goods and services.

It facilitates technological transfer and development. The import substitution industries require the use of better production techniques which are acquired from developed countries inform of automation and modern machines.

It encourages exploitation of domestic resources. More resources are utilized by import substitution industries and this reduces the resource wastage leading to increased production of goods and services.

It increases government revenue from taxation. The government levies taxes on the profits of import substitution industries and the workers in these industries and this increased tax revenue greatly contribute to the government revenue.

It widens the variety of goods available on the local market. Due to production of goods from the various industries established, consumers have a wide range of goods from which to choose what o consume and this improves on their welfare.

It facilitates the inflow of foreign capital. Some foreign investors set up import substitution industries to produce intermediate goods. Such investments increase capital inflow which results into better levels of output.

It facilitates expansion of the manufacturing sector. Many industries are developed in order to serve the domestic needs by producing goods and services and in the long run and this expands the manufacturing sector.

It saves the scarce foreign exchange. This rises from reduced expenditure on imports where the foreign exchange that would be spent on imports is saved since goods are being produced locally.

It facilitates development of other sectors through linkages. The import substitution industries use raw materials from other sectors like agriculture such as cotton fibre to produce clothes and this promotes inter sectoral linkages between agriculture and industry.

It increases foreign exchange earnings in the long run. This occurs in the long run through exporting some of the goods produced by the local industries to foreign markets.

Demerits/case against of import substitution industrial development strategy

It encourages capital flight through profit and income repatriation. The strategy promotes excessive capital outflow since most of the industries are owned by foreigners.

It subjects national to highly priced goods due to high costs of production. Most of the industries especially in the short run incur high average costs of production his results into high domestic prices and lowers peoples standard of living.

It limits the variety of goods and services put on the market. In a way to protect the established industries protectionism polices are adopted and these limit the entry of imports which limits the variety of goods on the market and lowers people's standard of living.

It encourages production and consumption of low quality products. The established industries are usually protected from external competition through protectionism and the absence of competition creates inefficiency leading to low quality output.

It encourages increased use of imported capital or intermediate goods. The high expenditure on importing such goods further worsen the balance of payment problems in the country.

It promotes technological unemployment in the economy. The massive use of capital intensive techniques of production have machines replacing human labour in the production process hence technological unemployment.

It promotes monopoly tendencies with all the negative effects. Due to protection, the established industries become monopolies where they restrict output in order to increase prices and this affects consumers.

It increases government expenditure. This is as a result of subsides the government gives to the infant import substitution industries.

It reduces government revenue from taxation. This is due to the reduction in the import duties as the former imports that were taxed are now not in place.

It increases wastage of resources due production at excess capacity. These industries especially at infant stages produce at excess capacity due to limited market, capital, poor infrastructure among others resulting into wastage of resources.

It promotes rural urban migration with its veils. Many people move from rural areas to urban areas after being attracted by the industries found in urban areas and this result increased crime rats, congestion, development of slums among others in urban centres.

Over protectionism results into retaliation by other countries. This occurs an act of revenge by other countries which reduces the volume of trade and the foreign exchange earnings of the country.

It is associated with high level of social costs like pollution. The big number of industries established give off gasses and release industrial wastes which pollute the environment.

Limitations to the import substitution industrial development strategy

- Small market size. This is due to the low incomes of the people which reduces the sales and profit level levels of the investors.
- Limited skilled labour. This results into depending on expatriates who are usually very expensive leading to high costs of production.
- Under developed infrastructure. The infrastructure in developing countries such as roads, power and energy among others are in a poor state for the smooth running of economic activities of these industries.

- ❖ Political instability in developing countries. This discourages both local and foreign investors who would have been interested in investing in the country since they cannot settle peaceful.
- ❖ Low level of entrepreneurial skills. Most people in developing countries lack the spirit and skills required to manage business and it becomes hard for them to establish and run import substation industries.
- ❖ Inadequate raw materials needed for industrial production. This requires the investors to import some of the needed raw materials from other countries which is expensive and this discourages some of the potential investors.
- ❖ Low level of technology used in production. Most developing countries have poor technology which cannot measure up to the required standards of the strategy in order for it to be successful.
- ❖ Trade malpractices such as smuggling of goods into the country. This is as a result of over protectionism to support the industries which reduces the market share of products produced by import substitution industries thereby discouraging potential investors.
- ❖ High rate of inflation. This results into production costs thereby discouraging potential investors in the industrial sectors and limiting the import substitution development strategy.
- ❖ Unfavourable government policy on investment. This is inform of heavy taxation on industries which discourages both local and foreign investors which limits the import substitution strategy of industrial development.
- ❖ Poor land tenure system. Land owners discourage industrial investment on their land and this leads of low level of investments in the sector which limits the strategy.
- ❖ Corruption and embezzlement of funds meant for industrial development. This discourages both local and foreign investment in the import substitution industries due to limited investment capital which limits the strategy.

Export promotion/outward looking industrial development strategy

This refers to an industrial development strategy where domestic manufacturing industries are established and promoted with the aim increasing exports of the manufactured goods.

OR

It refers to a strategy of industrial development where domestic industries are established and promoted in order to produce goods and services for the foreign market.

The strategy requires a lot of market research and advertisements in the foreign markets as well as improving the quality of products/exports to match the international standards.

Reasons for the adoption of the export promotion strategy of industrial development

- ❖ To increase the country's foreign exchange earnings. This is due to the increased exportation of manufactured goods which helps the country to its build up the foreign reserves.
- ❖ To increase the country's balance of payment position. This mainly due to the increased foreign exchange earnings from the increased exports from the industries.
- ❖ To create employment opportunities at home. This is due to the increased production of goods from the industries which employ a number of factors of production.
- ❖ To diversify the exports sector. The export promotion industrial strategy involves establishment of different industries producing a wide range of goods that diversify the country's exports.
- ❖ To improve entrepreneurship and local labour skills. This is mainly due the increase in the number of people who establish, run and manage export promotion industries in the country.
- ❖ To add value to the country's exports. The strategy focus at establishing processing industries to add value to the exports in order to increase their competitiveness in the foreign markets.

- To promotes further development of infrastructure. Export promotion industrialization strategy supports the establishment of the basic infrastructure such roads, power supply among others to facilitate the mobility of factor inputs and production in the industries.
- To increase utilization of local resources. This through increased production in the various industries and high demand for raw materials by the export promotion industries.
- To stimulate technological transfer and technological development. Export promotion industrialization strategy aims at enabling the movement of new and better techniques of production by the foreign investors from developed countries through the use of capital intensive techniques of production in the industries.
- To increase the country's GDP/accelerate economic growth. The strategy stimulates investment in industries which increases the volume of production of goods and services and accelerates economic growth.
- To enhance forward and backward linkages in the economy. The export promotion industries use raw materials from other sectors such as agriculture which enhances linkages that induce growth in other sectors.
- To increase government revenue from taxation. The government levies taxes on the profits of export promotion industries and the workers in these industries and this increase in the tax revenue greatly contribute to the government revenue.

Merits /positive impacts of the export promotion industrial strategy.

It creates more employment opportunities at home. Production of exports increases output and the level of economic activities which creates more employment opportunities.

It expands the country's market of goods in the foreign countries. As the country produces for the foreign market, there is aggressive advertisement that is undertaken abroad therefore there is a possibility of expanding the foreign market.

It increases the inflow of foreign exchange. This is because the strategy aims at selling goods abroad which leads to great inflow of foreign exchange and enables a country to improve on the balance of payment position.

It compels the country to add value to its primary products for export. To make the products more competitive in the foreign markets, exporters add value to the export products through additional processing and blending to enable them sell the products at higher prices in foreign markets.
It facilitate the development of infrastructure. In the process of developing export promotion industries, basic infrastructure is also set up inform of roads, communication facilities, power and energy plants among others so as to support industrial production.
It promotes better international relations and understandings. This is due to the drive to export goods to other countries which requires maintaining mutual political understandings with trading partners.
It encourages more domestic resource utilization. Local resources which would have remained idle are utilized by the export promotion industries as raw materials. This helps to check on the wastage of resources.
It increases output and accelerates economic growth. In order to cater for both the domestic and foreign market, more goods and services are produced which increases the volume of output and accelerates economic growth.
It encourages technological development and transfer. Local production methods are gradually developed by investors in the export promotion industries through importing better machines to use in production.
It widens the tax base of the country. Increases production in the export promotion industries widens the range of economic activities from which government collects tax revenue.
It promotes industrialization and expands the manufacturing sector. This arises from the setting up of more industries to produce goods for exportation to other countries.
It promotes development of local labour and entrepreneur skills. This is due to the different industries set up in the economy by the local entrepreneurs and the local labour who work in such industries.
It facilitates further monetization and commercialization of the economy. Most of the output from the export promotion industries established is meant for sell in the foreign markets.

Demerits of the export promotion industrial development strategy

It creates technological unemployment. This arises from the use of capital intensive methods of production by the export promotion industries where manual labour is replaced by machines.

It encourages capital flight through profit and income repatriation. This arises where export promotion industries are owned by foreigners who repatriate their incomes and profits to their mother countries.

It results into shortage of goods in the domestic market. This is due to massive production and concentration on exports and such shortages result into rising prices in the domestic market and this creates high cost of living for the people.

It promotes production of poor quality goods. This is especially true for the beginner firms where such commodities cannot compete fovourably in the world markets.

It may result into depletion of natural resources. In an act of satisfying the demand for exports in the foreign markets, there is excessive exploitation of some natural resources leading o their depletion.

It increase expenditure on market research and advertisement in the foreign market. This reduces the profit margin of export producers which discourages them from carrying out more investments.

It subjects the nationals to highly priced goods. This is due to high production costs that force export producers to fix high prices leading to low demand for exports and low export earnings.

It is likely to result into wastage of resources. This occur when all the exports produced are not bought on the foreign market.

It strains government expenditure to subsidies export promotion industries. Such subsidies offered by government to export promotion industries especially at their infant stages put great burden on the national budget.

It is associated with high expenditure on imported raw materials and technology. There is much need to import intermediate inputs and machines used in production and this increases foreign exchange expenditure and worsens the balance of payment position.

Factors that limit/hinder adoption of export promotion strategy

- The poor state of infrastructure. This discourages investors due to high costs of transportation which reduces their profits thereby limiting the expansion of the export promotion industries.
- Limited entrepreneurship skills. This discourages innovations and inventions since there is a small class of entrepreneurs that can organize other factors of production to facilitate production.
- Limited foreign market for the exports. This is due to the low quality exports that cannot compete fovourably in the foreign markets, this discourages producers for fear of making losses.
- High level of corruption of public funds. This results into misuse of the funds meant for the expansion of the manufacturing industries hence limiting the export promotion strategy.
- Political instabilities. Instabilities scare away potential investors from establishing industries and the existing ones from expanding theirs for fear of destroying them and losing their lives.
- Limited capital for industrial investment. The limited to buy land, machinery and inputs to use in the production and running industries limits the adoption of the strategy.
- Poor land tenure system. This limits access to land by many potential investors thus discouraging them from establishing industries and the existing investors from expanding.
- Protectionist policies of the developed countries. This limits the amount of exports from developing countries and discourages them from exporting for fear of making losses.
- Limited natural resources. This creates scarcity of raw materials which discourages potential investors from establishing industries and the existing ones to operate at excess capacity.
- Low level of technological development. This leads to production of low quality exports that cannot compete in foreign markets leading o losses and discouraging expansion of the export promotion industries.
- Production of similar products with other countries. There is limited market for exports from developing countries since the produce similar products which cannot be absorbed in the foreign markets.

- ❖ High costs of advertising exports in the foreign markets. This reduces the profit margin of the export producers which discourages them from carrying out more investments hence limiting the strategy.

2. Small scale industries verses large scale industries

N.B. This shall be covered under the topic of "**Structure of Uganda's economy"**

Choice of technique of production in an industry

A production technique/technology refer to the method of carrying out production of goods and services in an industry.

In order to produce goods and services, labour has to be combined with capital and the combination of these two determines the nature of production technique. There are four production techniques namely:

- ❖ Labour intensive technique/capital saving/ one pound technique.
- ❖ Capital intensive technique/labour saving/ a thousand pond technique.
- ❖ Intermediate technique/technology.
- ❖ Appropriate technique/technology.

The choice of technique of production to be used depends on the following:

- ❖ Nature of production
- ❖ Availability of capital.
- ❖ Availability of skilled labour.
- ❖ Size of the market to be served by the technique of production.
- ❖ Amount of output required.
- ❖ Benefits of the technique.
- ❖ Efficiency of the technique in minimizing costs of production.
- ❖ Dangers associated with the technique.
- ❖ Cost of the technique in relation to the prices of the final output.
- ❖ Degree of substitutability of the method of production/technique.

Labour intensive /capital saving technique of production.

This is a production technique that employs relatively more labour than other factors of production especially capital in production of goods and services. This technique of production uses proportionately more units of labour than capital. It is called a **capital saving technique** because it saves capital and uses more units of labour.

Arguments for/merits of labour intensive technique of production

It provides a wide range of employment opportunities in developing countries. Since developing countries experience high rates of unemployment, it creates more Jobs as more people are used in production.

It is cheap and easily affordable. It is cheaper to obtain and maintain because labour especially unskilled is readily available in most developing countries compared to capital intensive techniques which are expensive to acquire.

It saves foreign exchange which would otherwise be used to import capital machines. This is because labour intensive technique of production require simple tools can be locally made and designed.

The techniques requires limited skills. The technique does not require complex skills because many people learn on the jobs and this fits well in developing countries where there is shortage of highly trained manpower.

It facilitates the exploitation of the vast rural potentials since technique is mainly rural based. The technique promotes resource utilization in rural areas through activities like farming, brick laying, carpentry among others and this reduces excess capacity in rural areas.

It facilitates fair income distribution. More people are employed where labour intensive technique is used and the majority of people earn income hence fair distribution of income.

It is effective in production ventures where human judgment is required. Certain activities especially in the agricultural sector such as coffee harvesting, weeding of crops like beans, millet among others require entirely human labour and this calls for more unit of labour.

It reduces social costs inform of pollution. This technique of production is not associated with activities that heavily pollute the environment unlike the use capital intensive technique in industries which pollute the environment with industrial wastes.

It widens the tax base. This is because more people are employed and the income earned are taxed by the government to raise tax revenue.

It reduces foreign dependence by developing countries. This method of production utilizes locally available resources and minimizes the external resource dependence.

It controls over exploitation and depletion of resources. This is because with the use of more labour, the rate of resource exploitation is low compared to the use of machines.

Cases against labour intensive /capital saving technique of production

It results into low productivity. There is low output per unit of labour due to the use of rudimentally tools and limited skills in production. This lowers the rate of economic growth and development.

It gives rise to low quality products. This is due to the use of poor tools and limited skills in the production process leading to losses since products fetch low prices.

It is very costly in the long run. In the long run, it becomes costly to maintain a big number of workers in terms of paying wages, catering for their accommodation, medical care, transport allowances among other.

It encourages labour unrests and strikes. The dissatisfied workers through trade unions easily organize strikes to ask for higher pay and such strikes lead to loss of production time hence causing losses to producers.

It results into under utilization of resources. Due to its low productivity, some resources remain unexploited which leads to low economic growth.

It does not encourage development of labour skills. Since there is use of rudimentally tools where workers don not necessarily undergo training, it limits on the acquisition of labour skills.

The method is slow and time consuming. This is because production is purely manual and the tools used are also rudimentally which consumes a lot of time leading to low output.

It requires a lot of constant supervision of workers at the workplace. This is not easy where there is inadequate supply trained supervisors which is the case for most developed countries.

It does not encourage technological development. Labour intensive technique is associated with limited innovations and creativity which keeps it the same overtime hence limiting technological development.

It is not effective for certain complex types of production activities. Production activities like mining involve high risks and require excessive strength and makes human labour non effective for such activities.

It is hard to produce standardized products using this technique of production. It is difficult to have products of uniform size, appearance and quality when producers use labour intensive technique of production.

Capital intensive/labour saving technique of production

Capital intensive technique of production refer to a method of production that employs relatively more capital than other factors of production especially labour in production of goods and services.

This technique of production uses proportionately more units of capital than labour. It is called a **labour saving technique** because it saves labour and uses more units of capital.

Advantages of the capital intensive/labour saving technique of production

It encourages production of high quality of output. As firms use capital the intensive technique of production, the quality of products improves and such high commodities command a wider market which enable producers to earn higher profits.

It saves time and it is less tiresome. The use of machines reduces on loss of production time in industrial firms and this makes work easier, faster and reduces fatigue.

It increases the level of output/production. The level of productivity increases as the capital intensive technique is employment and more output is generated leading to an increase in the rate of economic growth.

It facilitates optimum exploitation of resources which would have remained idle. Use of the capital intensive technique of production in farming and extraction of minerals from their state of natural empowerment. This enables resources to be exploited in order to bring about economic growth.

It facilitates technological development and technological transfer. New methods of production are shifted from foreign states and the existing methods are improved to attain new levels of production and economic growth

It minimizes the size of the wage bill paid to labour. It uses fewer labourers and consequently there is a reduction in the amount of money paid to workers inform of wages.

It improves on the skills of workers hence increased efficiency. Workers who handle machines are able to acquire skills time to time for example, some technicians learn skills of handling machines via on job training which creates efficiency at work.

It reduces on labour unrest with its evils. Less manual workers are employed in a capital intensive technique of production and this reduces the possibility of labour unrest inform of strikes and demonstrations.

It facilitates development of infrastructure. Capital intensive machines such as heavy tractors are used in road construction thereby helping in setting up basic infrastructure that supports further production of goods and service.

It creates employment opportunities in the long run. Many capital intensive industries are set up and they provide jobs in the long run to machine operators, technicians, professional engineers among others.

Disadvantages of capital intensive/labour saving technique of production.

It is associated with technological unemployment. The use of machines in production units reduces the number of manual workers since tasks that could be handled by manual workers are executed by machines hence causing technological unemployment.

It worsens income inequality with its evils. It creates a big income gap between those employed in the labour intensive firms earning low incomes and those employed in the capital intensive firms earning higher incomes like engineers due to the professional skills.

It is associated with mass production which may result into wastage of resources. This arises especially out of small market and results into losses hence discouraging producers from undertaking further investment.

It requires complex skills which may not be readily available in developing countries. This leads to dependence on external expatriates which increases external dependence with its evils.

It is associated with high costs to acquire and maintain the technique. Heavy costs are incurred on purchase of the machines and other related spare parts, repair and maintenance, salaries to machine operators among others all of which reduces the profits of the producers.

It promotes over exploitation and depletion of the natural resources. Use of machines to extract natural resources from their natural state increases the rate of extraction of resources. This combined with high desire to produce more goods and services, may result into over exploitation and depletion of resources.

It generates high social costs/negative externalities to the society. Use of machines in industries cause noise pollution, emission of dangerous gases from industries which increase social costs and reduce people's standards of living.

It is not effective in production ventures where human judgment is required.

Certain activities especially in the agricultural sector such as coffee harvesting, weeding of crops like beans, millet among others require entirely human labour and this calls for more unit of labour and render machines irrelevant.

It is mostly afforded by foreign firms/investors who repatriate profits to their countries of origin. This increases the rate of capital outflow and reduces the multiplier effect in developing countries.

Circumstances under which capital intensive techniques may be used even when there is abundance of human labour

- When there is need to produce high quality products.
- In case there is need to save time and make production less tiresome.
- In case there is need to produce on a large scale.
- When there is need to reduce on wage bills.
- When there is need to increase efficiency in production.
- In case there is need to promote technological development and technological transfer.
- In case there are many industrial unrests inform of labour strikes and demonstrations.
- In case there is need to increase rate of resource exploitation and utilization.
- When there is need to rapidly develop infrastructure in form of roads, power supply, communication networks among others.
- When there is need to produce standardized products with uniform size, shape among others.
- When there need to create more employment opportunities especially in the long run through stimulating industrial production activities.

Limitations to the adoption of the capital intensive technique of production

- Limited capital to purchase machines, repair and maintain the machines.
- Limited labour skills to operate and repair the machines.
- Limited markets for the products that cannot support mass production,
- It is inadequate where human judgment is required.
- Under developed infrastructure like poor roads that make it difficult to transport machines and output.
- Political instability where industrial investors are not willing to establish machines/factory for fear of destroying them.

- Cultural rigidities where people are not willing to use machines and prefer using the traditional techniques of production which are mostly labour intensive.
- Limited entrepreneurial skills where there are few people with the ability to use and manage the modern technology/machines.
- Poor topography in some areas especially hilly areas that does not allow the use of machines especially in agricultural production.
- Poor accountability/corruption leading to misuse of funds meant for the purchase of advanced machines.

Intermediate technology/technique of production.

This is a method of production that is between capital intensive and labour intensive technology using capital and labour in a fair proportion.

This method of production is mid-way the capital intensive and labour intensive methods of production. For example use of ox-plough in cultivation in some parts of Uganda.

Characteristics of intermediate technology

- It mainly uses locally available resources/raw materials.
- Production is mainly for the local market.
- It can easily get adopted to the local conditions.
- It is cheaper than capital intensive and can be afforded by a fairly big number of local producers.
- It is basically rural based.

Positive implications of intermediate technology

- Creates employment opportunities through making use of the locally available labour force.
- Promotes fair income distribution since it employed in many areas including rural areas.
- Encourages exploitation of local resources or raw materials.
- Reduces foreign dependence on imported inputs and consumer products.
- Increases productivity of local resources leading increased output thus economic growth.

- Encourages rural development and transformation as it is mainly rural based and this reduces rural urban migration.
- Saves the scarce foreign exchange as limited inputs are imported.
- Promotes forward and backward linkages with different sectors of the economy hence limited wastage of resources.
- Promotes local research, innovations and creativity.
- It is cheaper and ease to adopt given the local conditions.
- Promotes local entrepreneurship by encouraging production and organization of factors of production by different people.

Negative implications of intermediate technology

- It involves high costs since some machines are bought to be combined with manual labour.
- It gives rise to depletion of natural resources in the long run.
- It is associated with relatively lower level of output compared to when capital intensive techniques are used to produce.
- It involves high wage bill incurred by producers to pay manual workers that operate and repair the machines.
- It compromises the quality of output since the level of technology employed is limited.

Factors that limit/hinder intermediate technology in developing countries.

- Narrow market for the locally produced goods.
- Inadequate supply of skilled manpower.
- Limited capital to finance research due to low profits earned,
- Foreign sabotage by production of similar products from developed countries.
- High level of conservatism by local producers.
- Limited government support and encouragement.

Appropriate technology/technique of production

An appropriate technology is a method of production which best suits the social and economic conditions of a given economy.

OR

Is a production technique which is in line with the development objectives and suits the development level of an economy.

This technique of production of emphasizes the suitability of the technology. For example the use of energy saving cooking stoves, use of solar energy equipment, use of gas for lighting and cooking in some in one society while in another society it is hydro-electric power which is an appropriate as a source of energy.

Conditions under which a technology may be considered as appropriate.

- When it suits the social conditions of the society/economy.
- When it is economically suitable for the society using it.
- When it is affordable and readily available to the people who want to use it.
- When it is suitable for the local surroundings and friendly to the environment in which it is being used.
- When it leads to employment of the locally available labour.
- When it uses the locally available resources or raw materials.
- When it is rural based thus facilitating the establishment industries and production activities in rural areas.
- When it is suitable for the size of the market it is intended to serve.
- When its components and maintenance are made and done locally.
- When it does not require highly advanced skills that are not available but uses locally available skills.

Factors that influence/determine the development of appropriate technology

- Availability of capital/funds.
- Level of skills/education.
- Level of entrepreneurship.
- Level of innovations and inventions.
- Degree of external/foreign influence.
- Government influence on technological development.
- Size of market for the products produced using that technology.
- Cultural factors/beliefs.

- Natural factors such as topography, nature of soils drainage among others.

Factors that limit the development of appropriate technology

- Limited capital.
- Unfavourable cultural factors.
- Limited skills required to develop and maintain the appropriate technology.
- Limited government support on technological development.
- Low level of entrepreneurial abilities.
- Low levels of innovations and inventions.
- Unfavourable natural factors like poor soils, poor drainage among others.
- Narrow market for the technology and its products.

N.B. The advantages and disadvantages of intermediate technology can serve for appropriate technology as well.

Technological Development and Technological Transfer

Technological development

This refers to the process of introducing, initiating and improving of the indigenous techniques of production.

Technological transfer

This refers to the movement of new and efficient techniques of production from one economy to another mainly from developed economies to less developed economies.

Merits of technological transfer

- Increases productivity of labour leading to more output.
- Facilitates exploitation of resources due to the introduction of better machines.
- Promotes production of new and better quality products thus improving people's standard of living.
- Encourages development of labour skills since labour acquire skills through training to use the new efficient machines.
- Increases the growth of the industrial sector since it enables the establishment of many industries.
- Facilitates infrastructural development since it facilitates construction of roads and other forms infrastructure.

- It promotes social and cultural transformation leading to economic growth and development.
- It facilitates production of standardized output because goods pass through the same production process.

Demerits of technology transfer

- Promotes technological dependence and its associated evils such as importation of capital intensive techniques of production that may not be appropriate for the economy.
- Encourages massive production which is not suitable for the small markets in developing countries hence wastage of resources.
- It is expensive /costly for it requires highly skilled manpower which is expensive and requires a lot of money to purchase and repair the machines.
- Increases outflow of foreign exchange on importing the machines and spare parts which worsens the balance of payment position of the country.
- Promotes technological unemployment whereby machines replace labour in the production process.
- It promotes regional imbalances since it is mainly applied in urban areas neglecting rural areas.
- Results into over exploitation of resources leading to quick depletion of resources.
- Promotes income inequality since it is owned by a few people.
- Promotes moral decay for example through internet on computers where people access pornography.

Factors that limit/obstacles/constraints to technological transfer

- Political instability. This scares away potential investors discouraging them from installing their machinery and does not provide a conducive environment for technological transfer and development.
- Inadequate funds in developing countries. There are limited funds to purchase and maintain the technology since it requires a lot of money to buy spare parts which limits technological capacity building.
- Inappropriateness of the technology being transferred. Most times the technology transferred is irrelevant and unsuitable to the conditions prevailing in the developing countries.

- ❖ Prohibition by patent laws in developed countries. Intellectual property rights in form of patent laws have limited the developing countries from using their technology.
- ❖ Inadequate scientific skills for manning the technology. There is limited skilled manpower to operate and repair the new technology.
- ❖ Conservativeness of the people. Some people are not willing to embrace the new ideas due to strong religious, cultural and traditional attachment which makes them prefer their old methods of production.
- ❖ Poor state of infrastructure. This is inform poor roads that discourage movement of machines to the different production centres.
- ❖ Limited entrepreneurship skills. There are few people with the ability and necessary skills to operate and manage the acquired new and efficient technology,
- ❖ Protective policies of the recipient countries. Some developing countries restrict importation of technology by importing high tariffs on capital goods.
- ❖ Ideological differences. This makes it difficult to access new and efficient methods of production from some developed countries.
- ❖ Poor education system in developing countries. The theoretical nature of the education curriculum makes it inappropriate to facilitate technological capacity building which limits the transfer and development of technology.

Guiding Questions

1. (a) (i) Define the term capital intensive technology.
   (ii) Mention any three factors that limit the adoption of capital intensive technology in Uganda.
   (b) (i) What is meant by the term import substitution strategy of industrial development?
   (ii) State any three disadvantages of adopting this strategy of industrial development in developing countries.
   (c) Mention any four roles of the intermediate technology in Uganda.
   (d) (i) What is meant by labour-saving techniques of production?
   (ii) Mention any two merits of the labour- saving techniques of production in an economy.

(e) (i) State the "Big push" theory of economic growth.
(ii) Mention any three limitations of the Big push theory in developing countries.

2. (a) (i) What is meant by a development goal?
(ii) Give any three economic development goals in Uganda.
(b) (i) What is appropriate technology.
(ii) Give any three factors which have affected the development of appropriate technology in Uganda.
(c) (i) Define the term " **critical minimum effort**" as used in the balanced growth strategy.
(ii) Give any three factors which limit the operation of the balanced growth strategy.
(d) (i) What is meant by infant industries?
(ii) Suggest three ways of protecting infant industries in Uganda.
(e) Mention any four reasons why economic growth may not be accompanied by a corresponding rate of economic development.
3. (a) Distinguish between economic growth and economic development.
(b) Explain the benefits of economic growth in an economy.
4. (a) Why may a country adopt an export promotion strategy of industrial development?
(b) Explain the limitations of the export promotion strategy of industrial development.
5. (a) Distinguish between balanced growth and unbalanced growth strategies.
(b) Account for the low level of economic development in Uganda.
6. (a) Define the term economic underdevelopment.
(b) Explain the causes of under development in Uganda.
7. (a) Differentiate between capital intensive and labour intensive techniques of production.
(b) "Developing countries should mainly adopt labour intensive techniques of production" **Discuss**.
8. (a) Distinguish between export promotion and import substitution strategies of industrialization.
(b) Explain the merits and demerits of adopting the import substitution strategy.

9. (a) Distinguish between import substitution and export promotion strategies of industrial development.

   (b) Assess the implications of adopting the import substitution strategy of industrial development.

10. (a) Differentiate between capital saving and labour saving techniques of industrial development.

    (b) Under what conditions may a country adopt capital intensive techniques of production despite the presence of a large size of cheap labour force.

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