

AGRICULTURAL DEVELOPMENT VERSUS INDUSTRIAL DEVELOPMENT STRATEGIES

AGRICULTURAL DEVELOPMENT

Agriculture refers to the production of crops and livestock (and marketing of farm products).

Agricultural development strategy is a strategy that emphasizes agricultural development, improvement and transformation for increased yields and better quality output in a country to attain development.

Advantages of agriculture

1. Creates more employment opportunities since it is labour intensive. It is able to absorb a big percentage of the people, which in turn improves the standards of living.
2. It is a source of food to the population. Food is obtained from crops, animals, poultry and fishing activities; and this improves the standards of living.
3. It is a major foreign exchange earner to the country. This is through exportation of agricultural products to other countries and the foreign currency is used to finance other sectors like education and health.
4. Agriculture is relatively cheaper to undertake. This is because farm equipment are relatively cheap to afford and it requires less skills and training, hence a better option to developing countries.
5. Agriculture is a source of raw materials for the industrial sector. Many industries are agro-based and therefore depend on the agricultural sector for inputs such as grain milling, dairy processing.
6. Promotes balanced regional development since it takes place in various parts of the country especially the countryside.
7. Agriculture reduces rural urban migration and its problems. The massive movement of people to urban areas is controlled, since many people are availed opportunities to work in the rural areas.
8. It is a potential source of revenue to the government. This is because many people are involved in the production process and hence contribute to tax revenue.
9. As it develops, surplus labour is released to other sectors of the economy such as industry and the service sector.
10. Promotes infrastructural development especially in the rural areas such as feeder roads, railway lines, health centres. This in turn promotes economic development.
11. Promotes fair distribution of income in the country. This is because the majority of the people are engaged in the production process.
12. Provides market for the industrial sector. Industries engaged in the manufacture of agricultural inputs and equipment are assured of large market.
13. *Agriculture has quicker returns such as food produced.

Arguments against agriculture

1. Agriculture yields low tax revenue to the government due to being mainly small scale and due to persistent price fluctuations on the market.
2. It is subject to diminishing returns and thus low production in the long run. The output from the sector declines overtime due to reducing soil fertility.

3. It is associated with seasonal and disguised unemployment. Many people have low marginal productivity and many are unemployed in certain periods of the year, and this discourages further investment in the sector.
4. Agriculture is associated with instabilities in prices for commodities and income of farmers. This explains why it does not attract large scale investment.
5. Increases external dependence and its negative effects such as balance of payment problems. This is many agricultural commodities are exported with less value added.
6. Worsens the balance of payment position. This is due to low foreign exchange earnings from the agricultural sector given the low prices offered on the world market.
7. Leads to poor terms of trade due to low foreign exchange earnings from the sale of the products and yet imports are expensive.
8. It is highly dependent on/ subject to natural factors such as pests, weather conditions; and therefore it is difficult amount of output, leading to price instability.
9. There is difficulty in making systematic development plans since agriculture is unreliable. This is due to persistent fluctuating prices and incomes.
10. Agricultural products are perishable and hence cannot be kept for long. This leads to shortages of such commodities in the near future.
11. Agricultural products are associated with long gestation periods. It does not readily adjust to market requirements since supply is not easily adjusted.

Policies to promote agricultural development

1. Provision of more affordable credit facilities
2. Improvement in marketing facilities such as liberalization of marketing.
3. Carrying more research in the agricultural sector such as new crop varieties
4. Carrying out land reform
5. Develop agro-based industries
6. Expanding acreage under agriculture
7. Diversify further the agricultural sector.
8. Develop / improve infrastructure
9. Ensure political stability in all parts of the country
10. Encourage mechanization of agriculture
11. Improve storage and market systems
12. etc

Land tenure system

Land tenure system refers to the pattern and structure of land ownership and use in a country

OR Refers to the rights regarding ownership and use of land in a given society.

The major land tenure systems in Uganda include:

1. **Customary (and communal) ownership.** Communal land belongs to the whole community and used collectively. All community members are free to use it for acceptable activities.
2. **Free hold land tenure (individual ownership).** Individuals are free to acquire and own land such as through inheritance or by directly buying it. The individuals can acquire title deeds for their land.
3. ***Private peasant holding.** Many small scale farmers or peasants owning land without land titles.
4. **Lease hold land tenure.** The landlords lease land to those willing to use it for a given period of time. The tenants pay rent to the landlord as per terms agreed. Land is also leased to individuals by Uganda land commission for a stated period of time which is renewable.
5. **Mailo land/ feudal land system.** This is found in Buganda where the British government gave the Kabaka and chiefs miles of land. Other people may occupy the land as squatters but the landlords can repossess it any time.
6. ***Public or crown land.** Land owned by the government/ state through Uganda land commission. This however can be leased to individuals or companies.

Limitations created by land tenure system to agriculture

1. In some places land is wasted by people or absentee landlords who lease it or go to live in towns leaving such land unutilized.
2. Communal ownership of land makes it to remain 'no man's land' hence cannot be improved.
3. Where land is owned by landlords, tenants are exploited by charging them some money and this limits agricultural development.
4. Private peasant holdings usually leads to land fragmentation making mechanization difficult.
5. Where there is no legal ownership of land, land cannot be used as collateral security to obtain loans from financial institutions.
6. Irrational use of land results where land is lent to inexperienced tenants who may not bother to put it to full use and care, thus leading to exhaustion.
7. Where land is not leased it becomes very difficult for the government to tax land owners.
8. Large land holdings by a few individuals limits employment opportunities in the agricultural sector.
9. Communal land tenure encourages over grazing and this makes control of diseases difficult because of free mixing of animals.

Land reform

Refers to a deliberate policy to change the existing land tenure system with a view to achieve the most efficient utilization of land/ increasing productivity.

OR Refers to any organized action designed to improve on the land tenure system in a given society.

Aims of land reform

- To consolidate small scattered plots into large ones to allow agriculture modernization
- To increase agricultural output by involving many people in agriculture
- To eliminate absentee landlords
- To encourage production for market instead of subsistence production

- To re-distribute or give land to the landless people
- To change the level and mode of rent payment to landlords and the way in which they are assessed
- To enable government to tax land lords
- To encourage people to use land as collateral security to secure loans
- To increase on the participation of many people in agriculture
- To reduce rural-urban migration by giving the landless land

Forms of land reform

1. Land re-distribution—involves breaking up large estates of land which may be unutilized and distributing it to those without land.
2. Land consolidation—putting together small fragmented pieces of land into big blocks of land that can be worked on economically e.g. using mechanization
3. Individualization of tenure. This eliminates communal land tenure which encourages misuse of land (title deeds acquired)
4. Abolition/ removal of landlords—tenant relationships such as Ujamaa policy in Tanzania.
5. Land registration—owners of land acquire title deeds for their land.
6. Establishment of settlement and resettlement schemes such as Kigumba and Kibale district in Uganda, Mobuku resettlement scheme in Kasese.
7. Removal of communal land
8. Adjust laws governing the buying and selling of land
9. etc

BOTTLENECKS TO AGRICULTURAL DEVELOPMENT IN UGANDA

1. Land shortage especially in areas of high population density
2. Poor land tenure systems in developing countries. Some systems have denied some people access to land
3. High level of conservatism among people. Many people are slow in taking up modern scientific methods due to strong cultural attachment.
4. Poor agricultural planning . many governments do little to develop the sector such as leaving farming to the mercy of nature, poor marketing systems
5. Limited agricultural diversification. Many people are still stuck to traditional crops such as coffee, tobacco, cotton, etc whose demand is falling or fluctuating and thus unstable incomes to farmers
6. Poor infrastructure such as poor feeder roads, poor storage facilities, leading to post harvest wastages of output.
7. Limited capital. This limits mechanization and the range of agricultural inputs.
8. Limited technical skills.
9. Natural hazards/ calamities. This increases the risks and uncertainties in farming such as unreliable rainfall, floods, pests and diseases etc
10. Limited market or poor marketing facilities, both local and foreign.
11. Limited/ uncoordinated research in agriculture. There are also problems of disseminating research findings

12. Limited and ineffective agricultural extension. It is restricted to the rich successful farmers and the majority are neglected
13. Political insecurity in some parts of developing countries. This leads to displacement of people, destruction of infrastructure and farmlands; diversion of resources to the military
14. Price fluctuations of agricultural products

AGRICULTURAL DEVELOPMENT STRATEGIES

A. IMPROVEMENT APPROACH VS TRANSFORMATION APPROACH

Improvement approach (Modernization approach)

Refers to a strategy which aims at improving the existing methods of production in agriculture to increase the quality and quantity of agricultural output (*instead of shifting away completely from traditional methods*).

OR Refers to the agricultural strategy that seeks to update or improve agricultural production within the existing framework (of small scale peasant farming) in order to increase productivity and quality. This is done through agricultural extension, provision of credit facilities, improving marketing facilities etc

This is a gradual process which involves:

- Provision of extension workers to advise/ educate the farmers on modern farming methods.
- Diversification of agriculture to reduce over dependence on one or a few activities/ crops
- Provision/ Subsidization of farm inputs to enable most farmers to afford.
- Provision of credit facilities to farmers
- Research to find out practical solutions to farmers' problems such as soil improvement.
- Encouraging intensive use of land
- Carrying out land reform policies to increase productivity
- Provision of incentives to farmers such as prizes for the best farmers, high prices for output etc
- Innovations and use of better seeds and animal breeds
- Adopting pest and disease control techniques
- Encourage commercialization of agriculture
- Establishing demonstration farms.
- Establish agro-based industries (industrialization within agriculture)

Advantages of the modernization approach

1. Increases employment opportunities and participation of the majority
2. Easily accepted by the majority since it is a gradual process
3. It is within people's ability
4. Encourages inventions and innovations
5. Increases incomes to the majority
6. Improves productivity and quality of output

7. It is cheap in terms of costs

Disadvantages of the modernization approach

1. Takes a very long period of time to achieve.
2. Requires skilled manpower which is rare in developing countries.
3. etc

Limitations to agricultural modernization

1. Land fragmentation due to rapid population growth
2. Limited skilled labour supply/ high illiteracy among the farmers which slows the process
3. Poor and limited research work and inadequate communication of research findings
4. Limited/ narrow market for output
5. Conservatism among many people
6. Limited capital/ insufficient capital to facilitate the necessary improvements
7. Poor infrastructure such as poor feeder roads
8. Poor land tenure system in many areas.
9. Political insecurity in some parts
10. Limited agricultural extension
11. Poor and limited storage facilities
12. Low level of technology/ poor techniques of production.
13. Natural hazards/ calamities
14. Low prices/ price fluctuation of agricultural product prices
15. Unfavourable topography such as some areas are hilly.

[Note: Agricultural modernization refers to the improving/changing of agricultural sector from subsistence production to commercialized high yielding agriculture. The policy of increasing the output and incomes of agriculture sector through measures like mechanization, use of improved breeds, improved seeds, provision of credit facilities etc]

Transformation approach (Agricultural transformation)

Refers to a strategy that aims at making drastic/ radical changes in existing methods of production in agriculture to increase its productivity.

Or This strategy that involves complete and total change in the existing methods of production in agriculture in order to increase the quality and quantity of output. It seeks to overhaul /completely change agriculture such as from traditional peasant small-scale agriculture to large scale production/ better systems. The transformation approach involves the following:

- Mechanization of agriculture—both small scale and large scale farms
- Use of capital intensive techniques of production
- Extensive research into better animal breeds and crop varieties
- Use of Land consolidation

- Organization of settlement and resettlement schemes, cooperatives etc
- Encouraging government participation in marketing of output (such as through marketing boards).

Merits of transformation approach

1. The strategy helps in breaking the vicious circle of poverty in a very short period of time. This is due to rapid increase in production.
2. Promotes agro-based industries due to increased supply of agricultural raw materials.
3. Provides high quality products which compete in both domestic and international markets
4. Provides more employment to the skilled labour and semi-skilled labour. This is due to the increased scale of production.
5. Promotes development of skills through education and training
6. Quickly eliminates the limiting factors to agricultural development such as use of traditional tools
7. Large scale production reduces the unit cost and makes prices more attractive to the consumers.
8. Enables mechanization of farming due to use of land consolidation.
9. Results into increase in the quantity and quality of exports, which in turn improves the balance of payment position.

Demerits of transformation approach

1. Requires a lot of capital both financial and machinery yet this is limited in developing countries.
2. Many farmers are by-passed by it due to the inability to purchase the machines
3. Requires highly skilled manpower which is inadequate in developing countries
4. Requires high level of entrepreneurship which is rare in developing countries.
5. Results into unemployment since it advocates for increased mechanization and requires highly skilled labour.
6. Cannot work well where there is land fragmentation and poor land tenure system
7. Requires wide market which is however limited in developing countries

B. INTENSIVE FARMING VS EXTENSIVE FARMING

Intensive farming refers to the use of a small piece of land but getting high yields.

Advantages of intensive farming

- Does not require much land
- Productivity is very high
- High quality production
- Encourages use of scientific methods such as crop rotation, manure to preserve fertility
- Suitable for research and growing of crops that require special attention

Disadvantages of intensive farming

- Requires much capital
- Requires skilled labour

- Very taxing since it requires special attention

Extensive farming refers to the use of large acreage of land to maximize output.

Advantages of extensive farming

- Appropriate for certain crops like tea, coffee, sugarcane, rice etc
- Does not require a lot of skilled labourers
- Provides employment to many unskilled people
- Does not require much special attention

Disadvantages of extensive farming

- Requires much land yet there is rapid growing population in developing countries
- There is low productivity
- Does not use much modern scientific methods and thus ;leads to quick land exhaustion

C. DIVERSIFICATION VS SPECIALIZATION IN AGRICULTURE

Agricultural diversification

Refers to the process of increasing/ widening the activities within the agricultural sector.

OR It is the creation of a multiplicity of economic activities within the agricultural sector. *This is intra-sectoral diversification within agriculture.*

For example small scale production, medium scale and large scale production within the agricultural sector; growing of a variety of crops and rearing many forms of livestock within the agricultural sector. This is intended to reduce the disastrous effects of over dependence on one or a few activities / items.

Arguments for agricultural diversification

1. Increases employment opportunities in the economy.
2. Results into increase in incomes of people from various activities and thus better standards of living.
3. Increases the variety of food availed to the people, which undermines malnutrition and a variety of raw materials to the industrial sector.
4. Generates more foreign exchange due to widened export base and in turn reduces the balance of payment problems
5. It diversifies markets for the country and thus continuous flow of income.
6. Reduces rural –urban migration since many people are engaged in various activities in the rural areas.
7. Reduces economic dependence such as on a few export crops/ items.
8. Promotes fair/equitable income distribution. Many individuals has a share on the activities and thus earn income.
9. Widens the export base of a country by generating foreign exchange from various activities.
10. Widens the tax base and taxable capacity in the country.

11. Promotes economic growth due to increased production/ output from various activities.
12. Promotes the development of infrastructure such as better roads, banking facilities, power supply etc to support the various economic activities.
13. Reduces the effects of price fluctuations due to constant supply of commodities.
14. Provides a variety of commodities from the different sectors, hence widening consumer choice.
15. Results into optimum exploitation and utilization resources. This reduces wastage / leads to production of more output.
16. Maintains soil fertility especially when crop rotation is used and some bi-products used as manure such as coffee husks, cow dung

Disadvantages of agricultural diversification

1. It is costly/ expensive to undertake. It requires huge capital investment to undertake many activities at the same time; which is limited in developing countries.
2. Results over exploitation of natural resources, hence leading to quick depletion of resources such as soil exhaustion.
3. Strains the government planning machinery
4. Results into high social costs such as pollution of the environment
5. Discourages international trade, since the country meets most of its needs.
6. It may encourage (subsistence farming or) small-scale production since most farmers produce small amounts of different crops and thus less surplus production for sale.
7. Requires knowledge of various activities involved and yet most people are less acquainted with this.
8. Diversification contradicts specialization and therefore the advantages of comparative advantage foregone.

Limitations to agricultural diversification

1. Inadequate funds
2. Poor infrastructure such as poor roads
3. Inadequate skilled manpower
4. Conservatism among many people
5. Inadequate market for output
6. Poor land tenure system
7. Poor accountability/ corruption
8. Natural calamities/ hazards
9. Limited research and development
10. Price fluctuations of agricultural products
11. Limited entrepreneurial ability/ skills among people
12. Unfavourable government policy towards agricultural development

Agricultural Specialization

Refers to the concentration of an individual/ area on the production of one type of crop or rearing one type of livestock and in turn exchange with other areas/ individuals.

Advantages and disadvantages

(Refer to production)

D. LARGE-SCALE VERSUS SMALL-SCALE FARMING

Small-scale production involves low capital investment, occupy small land area, have few workers, less mechanized and generally produce small quantity of output.

While

Large-scale production involves high capital investment, occupy large land area, employ many (hired) workers, highly mechanized, and produce large quantity of output.

Advantages and disadvantages

(Refer to production)

E. Agricultural mechanization

Refers to a deliberate effort to increase the use of machinery in agricultural production and reduce the amount of labour used.

OR refers to the increased application of machinery and equipment in agricultural production processes to increase productivity.

This includes the use of tractors, combine harvesters, milking machines, ox ploughs, water pumps, irrigation facilities, spraying machines, etc

Advantages of agricultural mechanization

- Leads to increase in agricultural productivity i.e. output per unit of input increases, hence better prices.
- Results into improvement in quality of agricultural output due to innovations and inventions.
- Encourages development of large-scale production and thus economies of scale
- Reduces the costs of production by substituting the increasingly expensive labour by machines/ reduces the amount of labour required.
- Machines are more reliable than labour. For example, labour can strike due to demand for higher wages unlike machines.
- Leads to development of infrastructure especially feeder roads; which in turn promotes production.
- Creates employment opportunities such as to the skilled and semi-skilled labour. This is due to increase in scale of production.
- Makes work simpler or easier and thus time-saving such as timely ploughing, planting, harvesting etc. it speeds up the production process.
- Enables training of labour in modern farming.

- Encourages full exploitation of idle agricultural resources such as idle land in some parts of the country is put to use.
- Encourages specialization and thus its advantages such as greater output and reducing fatigue on the part of workers.
- May reduce rural—urban migration by making agriculture attractive
- Releases labour to other economic activities such as the industrial sector. Agricultural mechanization enables many people to participate in other activities since work in agriculture is mostly done by machines.
- Avails more leisure to the people since work speeds up/ a lot of work is done in a short time.

Disadvantages of mechanization

1. Results into mass production which is at times difficult to market, leading to wastage of resources.
2. Requires skilled labour which is limited in developing countries
3. It is very expensive i.e. the initial cost is high and very few farmers can afford and yet maintenance of machinery is also costly.
4. It is uneconomical to use machinery on small-scale farms or fragmented land. It requires large land area yet LDCs have rapid population increase.
5. Results into unemployment since machines replace labour in the production process and this leads to rural-urban migration.
6. Importation of machinery results into balance of payment problems
7. Increases the rate of soil exhaustion and this negatively affects future yields.

Limitations to agricultural mechanization in developing countries

- Limited capital stock
- Land shortages due to rapid population growth.
- Poor land tenure system in many parts
- Limited skilled labour supply
- High cost of agricultural machinery/ limited capital
- Conservatism among some local people
- Limited market for agricultural output,(both domestic and foreign)
- High rate of land exhaustion since the land is over worked
- Political instability in some areas
- Topography such as rugged relief.
- Poor/ underdeveloped infrastructure
- Limited entrepreneurial skills
- Underdeveloped technology
- Unstable/ low agricultural prices
- Inapplicability where human judgment is necessary
- Corruption and embezzlement of funds

F. LAND REFORM (refer back)

G. COMMERCIALIZATION OF AGRICULTURE

Involves the increase in growing of crops and rearing of livestock for market.

OR Refers to the production of agricultural output for market / profit gains.

Features of commercialization of agriculture

- Production is mainly for market / profit-motivated rather than own consumption.
- High use of modern methods of farming such as improved seeds, , improved breeds, pesticides, fertilizers etc
- There is high use of machines/ modern tools
- Production mostly on large-scale aimed at satisfying the market
- High use of wage or salaried workers (rather than family labour)
- Money is mainly used as a medium of exchange
- There is high productivity per worker.
- Hired/ salaried labour is highly used
- There is a lot of research in production
- etc

Advantages and disadvantages

(Refer to production)

Limitations of commercialization of agriculture

1. Limited capital to invest
2. Poor land tenure system
3. Land fragmentation due to rapid population growth.
4. Illiteracy among most farmers and poor education system which discourages educated people from involving in agriculture.
5. Conservatism among many people.
6. Limited market which limits mass production.
7. Rural-urban migration limiting labour supply
8. Limited skilled labour supply
9. Poor infrastructure like poor feeder roads.
10. Price fluctuation of agricultural products.
11. Political insecurity in some parts of developing countries.
12. Criticisms from environmentalists since it is not environmentally friendly.

H. RESEARCH IN AGRICULTURE

These are the scientific investigations with a view of improving on the methods of production, quality and quantity of output in the agricultural sector.

In Uganda the research stations include: Namulonge agriculture research centre in Gayaza , Kawanda research centre, Bukalasa agriculture centre in Luweero, Kabanyoro university research centre, Ntawo research centre in Mukono etc. in 2003 a national biotechnology centre was established at Kawanda.

Agricultural research is intended to:

- a) Identify appropriate crops or animals which are disease-resistant and high yielding.
- b) Identify quick maturing varieties, adoptable in the shortest possible time.
- c) Develop chemicals to control pests and diseases
- d) Promote agricultural modernization by identifying causes of low yields and discover ways of improving production
- e) Identify which crops grow best and in which type of soil
- f) To develop weed control techniques
- g) To shorten the gestation period of both crops and animals within the agricultural sector.

Limitations to agricultural research

- 1. Limited funds to carryout serious research work.
- 2. Limited skilled personnel to carry out research, due to poor education system
- 3. Illiteracy among many farmers hence cannot easily understand research work
- 4. Conservatism which makes most farmers to stick to old traditional practices in farming
- 5. Failure to interpret research results into projects by research officers and field officers
- 6. Limited contacts between researchers and the farmers due to poor infrastructure and inadequate extension work.
- 7. Corruption and embezzlement of funds

I. AGRICULTURAL EXTENSION

Refers to a complex process through which new methods of farm production are transmitted/ disseminated to the farmers in their respective areas.

Extension field officers, technical advisers move to the rural areas to educate farmers.

Agricultural extension involves:

- a) Educating the farmers and provision of technical advice to them on modern scientific production techniques
- b) Communication of research findings such as about new / better seeds, crops, fertilizers and machinery
- c) Carrying out home economics programmes all aimed at improving nutrition, general health and welfare of farmers
- d) Offering short courses to farmers at the various district farm institutes
- e) Radio programmes, television and publication of magazines specifically for farmers such as farming world, PMA, NARO etc
- f) Arranging visits to different progressive farmers and other state farms

Agricultural extension can be done through field trips by agricultural officers or assistants, organization of seminars, establishment of farm institutes e.g. Ntawo farm institute in Mukono and other demonstration farms.

The effectiveness of agricultural extension in Uganda is low, given the low returns to the sector and consequent low investment.

Limitations to agricultural extension services

1. Poor infrastructure which makes the movement of extension workers difficult.
2. Illiteracy among farmers who sometimes are not willing to listen to extension workers/ some farmers are ignorant and conservative.
3. Limited qualified personnel to carry it forward
4. Limited funds to carry out extension services
5. Sometimes outdated advice is given to farmers and some of it inappropriate to certain localities. At times the farmers may be more informed than extension officers
6. Mismanagement and neglect which reduces the role of agricultural farm institutes
7. Irresponsible field officers who do not visit rural areas
8. Political unrest in certain parts

J. PRICING AND MARKETING POLICIES

It is argued that good producer prices act as incentives to farmers to increase output and to take up directives on new production techniques. In many developing countries and Uganda in particular agriculture has always been frustrated by poor marketing systems and limited markets.

There is need to do more market research, organize farmers in cooperatives and strengthen economic integrations to widen market and thus ensure better/ attractive prices to the farmers.

K. PROVISION OF CREDIT FACILITIES

This is also an institutional policy to provide the required economic incentives to farmers , for them to acquire agricultural implements and other inputs for agricultural modernization, to develop farm enterprises, buying trucks for transporting produce, to hire more labour to carry out various activities. Such as in Uganda—rural farmers’ scheme which started in 1997 with low interest rates. (However much of the money was never repaid). The loans may short-term (within a year), medium term (above 1year and less than 5 years) or long term (5 years and above) .

L. ORGANIZING AGRICULTURAL COMPETITIONS

This also takes place and prizes have been delivered to winning farmers such as wheelbarrows, grants of finance, new varieties of crops, animal breeds, and trips within and outside the country for them to appreciate the levels of agricultural modernization.

Risks and uncertainties in agriculture

A risk is an event which brings financial losses and their occurrence can be determined mathematically/ calculated such as a fire may destroy a farm, crops may be stolen from the store.

*'Or refers to a situation where the farmers stand to lose due to divergence between expectations and actual outcomes, due to events beyond their control, most of which cannot be predicted such as rain failure, pests and diseases, floods etc'

Whereas Uncertainty is an event where the occurrence cannot be determined mathematically and it causes financial losses to farmers such as a change in demand and change in prices.

*'Or refers to a situation where the farmers are not sure or are having imperfect knowledge about the future events or outcomes. This occurrence cannot be insured against such as price or revenue to be earned'.

Possible ways of reducing risks and uncertainties in the agricultural sector

1. Carry out further diversification in the sector
2. Carry out irrigation in the agricultural sector to reduce dependence on nature
3. Carry out research to control pests and diseases
4. Encourage farmers to undertake insurance policies (although this is very challenging in agriculture).
5. Identifying appropriate crops for particular areas, to reduce events of crop failure.
6. Strengthen provision of extension services to farmers
7. Stabilization schemes to stabilize prices of agricultural products.
8. Encourage formation of farmers' groups / cooperatives to ensure joint marketing and increase the bargaining power.
9. Improving storage and marketing systems
10. Joining international commodity agreements to create a stable market and thus stable prices.
11. Maintaining political stability in various areas.

STEPS BEING TAKEN BY THE UGANDA GOVERNMENT IN DEVELOPING AGRICULTURE

1. Liberalizing the marketing agricultural products.
2. Strengthening research, extension work and farmers' linkages
3. Providing credit facilities such as through the savings and credit societies
4. Developing infrastructure such as improving feeder roads and main roads
5. Emphasizing agricultural education such as in schools, seminars, extension services, engaging farmers in on-going research
6. Encouraging competition between and among farmers, and in turn offer attractive prizes to progressive farmers
7. Ensuring efficient distribution of agricultural inputs
8. Empowering women who are mostly engaged in agriculture
9. Encouraging agricultural mechanization such as use of tractors, ox-ploughs, irrigation systems

10. Ensuring political stability in various parts of the country.
11. Joining and strengthening regional integration to improve marketing.
12. Organizing agricultural exhibitions such as the annual Jinja agricultural show.
13. Undertaking land reform policies such as through Uganda land commission, the land act.
14. Promoting non-traditional agricultural exports such as pineapples, flowers, beans, maize, aloevera etc
15. Developing agro-based industries to process and add value on agricultural output.

INDUSTRIAL DEVELOPMENT

Industrialization refers to the process of building up a country's capacity to process raw materials, manufacture consumer and capital goods by establishing industries.

Industrial development refers to the process of increasing the manufacturing of consumer and capital goods. It also involves the creation of social overhead capital for providing goods and services for the economy such as power generation, road net work. In developed nations economic development process moves from agricultural to industrial dominance and finally to service and this is being experienced in many developing countries.

Therefore, industrialization is central to the economic development of any country, with regard to economic growth and structural transformation of an economy.

Goals of industrial development

1. To increase the contribution to GDP
2. To attain self-sufficiency in industrial output.
3. To promote exportation of goods and increase the country's export earnings.
4. To utilize the domestic resources
5. To increase the level of employment
6. To increase the utilization capacity i.e. to reduce excess capacity
7. To diversify products
8. To promote technological development and productivity leading to increased per capita income
9. To promote linkage in the economy and income stability

Strategies for industrial development

These are policies or methods followed to achieve desired goals and objectives of industrialization.

Import-substitution versus export promotion strategy

Import substitution industrial strategy (in-ward looking development strategy)

Refers to a deliberate strategy to establish industries internally to produce goods previously/formerly imported.

It involves policies aimed at developing the capacity for the economy to produce what was formerly imported from other countries. It aims at achieving self-sufficiency in a wide range of consumer goods and capital goods by promoting the emergency and expansion of domestic industries. (In Uganda, such industries include textiles, beers, soft drinks, house hold appliances, spare parts, mattresses etc)

Policies to promote/ support import substitution strategy (requirements for the strategy to succeed)

1. Establishment of basic infrastructure such as roads, energy facilities, banking facilities, insurance companies
2. Training of entrepreneurship skills and train the local labour force to work in industries
3. Protection of local infant industries from competition (such as total ban, quotas, tariffs)
4. Provision of investment incentives to attract investors such as tax holidays, subsidies, credit incentives
5. Expansion of the local market so as to attract investors , both local and foreign
6. Provision of inputs and local raw materials in time i.e. raw materials should be available
7. Provision of imported raw materials / inputs by providing foreign exchange at the right time.
8. Ensure political stability in various parts of the country
9. etc

Merits of import substitution strategy

1. ***Saves the scarce foreign exchange*** by producing the formerly imported goods locally. This leads to improvement in the balance of payment position of the country.
2. ***Provision of more employment opportunities*** for the local population especially in the long run. This occurs due to the setting up and expansion of several industries. This in turn increases the standard of living.
3. ***Facilitates development of local skills***. This is through innovations and on-job training in the various industries. This increases incomes of individuals / firms.
4. ***Increases government revenue*** through taxation of the local established industries and through tariffs imposed to protect infant industries.
5. ***Encourages /accelerates the rate of economic growth***. More local resources are exploited by the import substitution industries and thus leading to increase in the quantity of output.
6. ***Promotes industrialization in the economy***. Many local industries are set up to produce a variety of commodities formerly imported and thus increasing national income.
7. ***Promotes backward and forward linkages with other industries/ sectors***. This leads to development of the other industries supplying the import substitution industries with inputs or those using the by-products as inputs.

8. ***Facilitates the development of infrastructure*** (such as banks, insurance companies, and road network) to support the import substitution industries. These end up promoting other economic activities by enabling movement of factors of production and finished goods.
9. ***Facilitates technological transfer and development in the economy***. Modern techniques are shifted from other countries to promote production in the various industries, leading to efficiency in production.
10. Import substitution industrial strategy ***controls imported inflation***. This is by reducing the amount of imports and this ensures domestic price stability and, effective planning in the economy.
11. ***Reduces the extent/level of foreign dependence/ promotes self-reliance***, because the country is able to produce its own goods and services. This reduces adverse effects of dependence such as severe shortages in case of war or trade embargo.
12. ***In the long run it generates foreign exchange through exports***. After achieving self-sufficiency in consumer and intermediate goods, a country starts exporting industrial goods. Major export industries start as import substitution industries.

Demerits of import substitution industrial strategy

1. ***Encourages capital outflow through the importation of capital goods and other intermediate inputs***, which are costly and this leads to loss of foreign exchange/ balance of payment problems.
2. Most of the import substitution industries are foreign owned and this leads to ***profit repatriation*** and this reduces capital formation. Foreign investors also give many demands on government.
3. ***High cost of production in the local industries*** leading to expensive goods. It is cheaper to import than produce some goods locally.
4. The ***importation of inputs at times leads to imported inflation*** and dependence of developing countries on developed countries. This limits the benefits from the strategy.
5. ***Breeds inefficiency in production***. This is because the policy advocates for protection of local industries that end up emerging as monopolists.
6. ***Protection of local industries induces retaliation by other countries***, that is, they may impose a total ban on exports of a country imposing high tariffs on their exports.
7. Leads to a ***fall in government revenue*** due to a decline in import duty.
8. Import substitution industries ***normally produce poor quality goods*** that are expensive when compared to imported goods. This is partly due to protectionism.
9. ***These industries mostly produce consumer goods with limited production of capital goods***; and this undermines capital formation. It promotes consumption rather than saving and investment.
10. ***Limits the variety of goods on the market and this limits consumer choice***. This is because the import substitution industries are often protected from foreign competition.
11. Most import substitution industries are urban-based and this leads to ***regional inequality*** and rural-urban migration and its negative effects like congestion.
12. ***Increases technological unemployment*** since most of the investors prefer capital-intensive techniques of production. This leads to low standard of living.
13. ***Production at excess capacity due to limited domestic market for products***. This leads to underutilization of resources.

14. High social costs result such as air and water pollution from the established industries.
15. Leads to increased government expenditure on subsidies.
16. Management contracts are usually expensive to maintain.
17. The commodities produced may not meet consumer taste i.e. most people prefer imported goods to locally made goods. This may lead to wastage of resources.

Limitations of import substitution industrial strategy in developing countries

1. Small size of the domestic market, which does not allow the operation of import substitution industries at full capacity. This is due to the general poverty in developing countries.
2. Limited skilled personnel/labour
3. Limited local entrepreneurial skills
4. Inadequate capital to establish and manage the industries. This is due to low savings , low incomes and low capital accumulation.
5. High marginal propensity to import in developing countries. Consumers mostly prefer imports to locally produced goods.
6. Poorly developed and inappropriate technology (low levels of technology)
7. Underdeveloped social and economic infrastructure such as power and energy facilities , banking facilities, stock markets, road network, railway network etc
8. Political instability in some parts of developing countries also limits the success of import substitution industries
9. Inadequacy of essential raw materials/ basic resources and thus the need to import expensively.
10. Unfavorable government policy such as high taxation, too much bureaucracy leading to delays in investment projects etc
11. Poor trade policies such as failure to impose trade restrictions to control imports.
12. Corruption/ low levels of accountability
13. Unconducive investment climate /Economic instability i.e. inflation, deflation.

Export promotion industrial strategy (Outward looking industrial strategy)

Refers to the deliberate policy/ strategy that emphasizes establishing domestic industries to increase production of goods for export markets.

It involves deliberate policies directed towards the expansion of the volume and the variety of industrial products for export. It also involves export of non-traditional products such as processed primary products, semi-finished and finished goods.

Policies to support export promotion strategy

1. Market research to identify the export market for output.
2. Sales promotion and advertisement in various parts of the world.
3. Carrying out trade agreements
4. Provision of incentives to local and foreign producers such as subsidies, tax holidays.

5. Development of infrastructure such as transport and communication improvement, energy, banking, insurance etc.
6. Establish and strengthen export promotion institutions
7. Strengthening economic integration and trade agreements
8. Availing affordable Credit and loan schemes to producers
9. Provision of raw material inputs
10. Training skilled labour to manage the export promotion industries.
11. Liberalization of the economy.
12. Further privatization in the economy
13. Promote political stability in the country and surrounding countries.

Advantages of export promotion industrial strategy

1. ***Increases the country's foreign exchange earnings*** due to the export of more commodities and the foreign currency is used to set up development projects. This improves the balance of payment position.
2. ***Increases the employment opportunities*** in the industrial sector and related sectors. This is because many industries are set up and the existing industries also expand to serve the export market, and in the process employ many people. This in turn improves the standards of living.
3. ***Enhances exploitation of local resources***, to produce goods that are highly demanded in foreign countries. This reduces wastage of such resources, and in turn more goods and services are produced.
4. ***It increases government revenue through taxation***. This is due to increased production in various industries for the export sector.
5. ***Enhances development of labour skills***. Many people are trained to work in the export promotion industries such as market and research skills; and this promotes further investment in the economy.
6. ***Encourages technological development***. New methods of production are got through innovations and inventions. This increases production of higher quantity and quality output in a bid to satisfy the export market.
7. ***Promotes the development of the manufacturing sector in the country***. This is due to the diversification of the export promotion industries so as to increase the volume and variety of export commodities.
8. ***Enhances linkages between sectors of the economy*** such as agriculture and industry. Agro-based industries use raw materials from agricultural sector and this promotes an integrated economy.
9. ***Promotes understanding/cooperation between countries as they trade with each other***. This in turn promotes diplomatic relations and inflow of investors and latest technologies.
10. ***Promotes economic growth/ It increases production*** and economies of scale due to worldwide market. There is also high quality production to compete favorably.
11. ***Promotes development of infrastructure*** such as better roads and railway lines as a way of promoting exports. This facilitates production and marketing of output, and hence increasing economic growth.

12. Export promotion strategy attracts foreign direct investment leading to **high capital inflow**. This is also improves the balance of payment position.
13. Encourages countries to add value to their raw materials / primary products, and hence diversification of exports. This in turn increases national income.
14. **Enhances diversification of export markets**. It expands the market for locally produced goods through market research and thus industries enjoy economies of scale.

Disadvantages of export promotion industrial strategy

1. Export promotion **strategy is expensive** because it is associated with high capital investment which is limited in LDCs
2. Developing countries mainly produce poor quality products, which are not competitive on world market. This limits the export earnings.
3. **Leads to high expenditure on imported raw materials and technology**, hence creating dependence.
4. There is high expenditure on market research and advertisement on the market. This requires skilled personnel and a lot of funding.
5. **Shortage of goods in the domestic market at times arises**. This is due to emphasis on production for export and this leads to inflation.
6. **Leads to wastage of resources since sometimes not all output is bought**. The developing countries can produce similar goods and they cannot trade among themselves; hence limited export market. *(Yet developed countries usually impose trade restrictions on exports from LDCs)*
7. The export promotion sector is usually dominated by foreigners and this **results into profit repatriation**. This limits re-investment/ capital formation.
8. **It is associated with technological unemployment**. This is because of the use of machines which replaces labour in a bid to increase the export volume. This in turn lowers the standards of living.
9. **Over exploitation of natural resources** to satisfy the export market. This leads to depletion of such resources and thus works against the opportunities of the future generations.
10. **It increases pollution of the environment** such as air and water pollution by chemicals and wastes from the production plants. This negatively affects the quality of life.

Limitations of export promotion industrial strategy in developing countries

1. Protectionism tendencies/policies of developed countries to goods from LDCs such as through tariffs, quotas, total ban etc
2. Slow growth of the export market due to low population growth in developed countries and raw material saving techniques, presence of synthetic substitutes.
3. The output from developing countries is less competitive in external markets for example manufactured goods from LDCs are expensive.
4. Production of almost similar products by developing countries and therefore they find it difficult to trade amongst themselves.
5. Inadequate skilled labour to manage industries and carry out market research.
6. Limited entrepreneurial skills
7. Limited basic raw materials/ natural resources and some not being economically viable.

8. High costs of /Expensive market research and advertisements.
9. High levels of Corruption and mismanagement in public sector.
10. Limited capital/ funds to invest in export promotion industries and manage them, carry out market research etc
11. Poor infrastructure such as energy facilities, banking, insurance, road and railway network to facilitate production and marketing.
12. Low levels of technology
13. Limited skilled labour to produce for export.
14. Political insecurity in some parts, which limit the growth of industries.

SMALL SCALE INDUSTRIALIZATION VERSUS LARGE SCALE INDUSTRIALIZATION

(Refer back)

LABOUR INTENSIVE VERSUS CAPITAL INTENSIVE TECHNIQUES

(Refer back)

A case for industrial development

1. ***Generates more employment opportunities especially in the long run.*** This is especially with the use of labour intensive technology and with the expansion of the industrial sector. More so the marginal product of labour is higher in industry than in agriculture. This improves the standards of living.
2. ***Provides a wider source of revenue to the government,*** through direct and indirect taxes. Taxes are imposed at various stages of production and thus more revenue to meet government expenditure.
3. ***Promotes training of labour / development of skills*** for example through apprenticeship and on-job training in the industries. This increases the marginal productivity of labour. It also in turn raises the entrepreneurial ability and technical innovation.
4. ***Encourages technological development and transfer in the country.*** This is due to increased inventions and innovations and adoption of modern methods of production from other countries, hence high volume of production.
5. ***Improves the balance of payment position of the country.*** Industrialization increases the volume of exports and reduces the volume of imports, hence increasing foreign exchange earnings and reducing foreign exchange expenditure.
6. ***Improves the terms of trade of the country due to exportation of finished products/*** value added products. This output commands higher prices on the world market.
7. ***Promotes infrastructural development.*** For example better road network, railway lines, power supply, banking facilities are put to support the industrial sector but these end up pulling up other sectors of the economy.
8. ***Industrialization promotes more backward and forward linkages with other sectors.*** This is by supplying inputs to some sectors and providing market for other sectors. This promotes an integrated economy and in turn generates more employment, increases output and even savings.

9. ***Increases the per capita income of a country unlike the agriculture sector*** (especially in the long run). This is because it generates higher levels of income and savings to the people especially in the long run. This in raises the standards of living.
10. ***Promotes social transformation and balanced regional development*** (if well streamlined). For example the cultural values are transformed into modern industrial values such positive attitudes towards work.
11. ***Raises the capital stock of a country and therefore raises the productive capacity***. For example, farm implements/ machinery encourage farmers to increase agricultural output and thus increased capital accumulation.
12. ***Increases specialization and its advantages***. Industries specialize in particular products and also workers concentrate at particular stages of production, and this increases the level of output and profitability.
13. ***Promotes economic stability***. This is because the prices of manufactured goods are relatively stable unlike primary products.
14. ****Necessary for structural changes and for diversification of the economy.***

Other advantages

- The industrial sector is less vulnerable to changes in consumer tastes and preferences than the agricultural sector-which produces primary products / raw materials. Industry offers a wide range of produce.
- *Industry is not directly subject to vagaries of nature/natural hazards* such as climate, pests and diseases; and thus stable/ regular output.
- *Industry does not require much land unlike the agricultural sector*. Thus easily developed in areas with limited land such as urban areas.
- *Reduces price fluctuations and encourages income stability*. The prices of manufactured products are more stable or keep rising while those of agricultural products falling or fluctuating.

Disadvantages of industrial development

1. ***It is expensive to undertake since it requires more capital*** unlike agriculture. It is expensive to start and maintain; and thus highly dependent on foreign investors.
2. ***Returns from the industrial sector are not immediate***. The industrial sector requires long-term investment especially the medium and large-scale enterprises , and this discourages the potential local investors.
3. ***Encourages external economic dependence***. Some industries require dependence on imported inputs and export markets; and this subjects the country to undesirable economic decisions/ conditions such as unfavourable balance of payment position.
4. ***The industrial sector is associated with environmental degradation/ high social costs*** such as air, water pollution. This is due to the increased disposal of industrial wastes and reclaiming of swamps for industrial use. Social costs reduce the quality of life.

5. ***Accelerates rural-urban migration and its negative consequences.*** Many people move to the urban areas to get better jobs in the urban-based industries and this limits social services, increases congestion and emergence of slums in urban and sub-urban areas.
6. ***Worsens income inequality.*** Using capital-intensive equipment creates employment for a few people leaving the majority in other sectors with limited or no incomes, and this reduces the purchasing power of people. *(There is low employment creation especially in the short run since many workers are replaced by machines).*
7. ***Encourages technological unemployment in the longrun.*** As firms expand they become capital intensive, hence substituting labour with machines especially in the medium and large scale industries.
8. ***Results into over exploitation of the available natural resources*** such as minerals, forest resources; hence quick depletion. This denies the future generations the opportunity to use such resources.
9. ***Regional imbalance in development.*** This is because most industries are concentrated in the urban areas and thus the urban areas have more developed infrastructure than other less /non-industrial areas.
10. ***Repatriation of profits and income by the foreign investors.*** Many medium and large scale industries are foreign owned and thus more profits are taken back to the mother countries and thus less ploughing back/ re-investment.

Assignment

1. "Uganda should adopt an agricultural rather than industrial strategy to achieve a faster rate of economic development" Discuss
2. 'Uganda should adopt mainly industrial development strategy to attain economic development'. Discuss
3. "it is through industrialization that Uganda can attain higher rates of economic growth and development" Discuss
4. (a) Distinguish between export promotion and import substitution strategy.
5. (b) Explain the merits and demerits of adopting the import substitution strategy
6. (a) Distinguish between import substitution and export promotion strategies in industrial development
7. (b) Assess the implications of adopting the export promotion strategy of industrial development in developing countries

Obstacles to industrial development in Uganda

(Refer to structure of Uganda's economy)

Policy measures to promote industrial development in Uganda

(Refer to structure of Uganda's economy)

***Concepts**

- **Footloose industries**
Refers to industries that do not have any special locational pull factor .i.e. they can be set up anywhere.
 - **Rooted industries**
Refers to industries set up in specific areas due to special pull or locational factors such as a cement industry near raw materials, soft drinks industry near the market.
 - **Infant industries**
These firms in the industrial sector have just started operating and therefore have limited market, low output levels and high average costs of production.
They are newly established industries whose average cost of production is still high and usually protected by a tariff barrier.
 - Extractive industry
 - Tertiary industry
- Question:

(a) Why has industrialization failed to solve the unemployment problem in developing countries?

(b) What steps can be taken to increase the contribution of the manufacturing industry to employment in Uganda?

TECHNOLOGY

Technology refers to the means by which factors of production are combined to produce output in an economy.

Alternatively, Technology refers to the skills, knowledge and procedures for making, using and doing useful things. It is the knowledge / knowhow and hardware of the production process.

Note: technology is associated with the nature of the product, the resource use, the nature of manpower required, management component, materials and energy inputs, scale of production, complementarity of services and products involved.

TECHNOLOGICAL DEVELOPMENT AND TRANSFER

Technological development

Refers to the gradual process of initiating and improving indigenous techniques of production through innovations and inventions to make it more productive.

Technological development may involve a country initiating her own technology to suit the local economic, social, and environmental needs. This normally involves research and improvement in the local methods of production.

Role of technological development

1. Facilitates transformation of factor inputs into output and eventually raises economic growth.

2. It increases resource productivity. For example producing more with same or lesser resources, higher value products are produced.
3. Raises the economic welfare or standard of living, both quantitatively and qualitatively. A variety/ a wide range of products are availed for consumption.
4. Technical progress raises agricultural productivity and thus increased supply of agricultural raw materials such as dairy products, grains
5. Minimizes the limitation caused by resource scarcity i.e. raw material saving techniques such as recycling, synthetic substitutes leading to a fall in demand for inputs.
6. Promotes social transformation by opening up new opportunities , new products, new methods of performance , new life styles etc
7. Reduces the technological gap between MDCs and LDCs. It makes the LDCs more competitive in international markets.
8. Facilitates development of key industries and basic infrastructure such as telecommunications, transport, power , banking

***Demerits of technological development (refer to technological transfer below)**

1. Encourages technological unemployment.
2. Worsens into income inequalities.
3. Results into wastage of resources due to mass production for a small market.
4. Associated with high social costs such as pollution of air and water with chemicals and fumes. This leads to low quality of life.
5. Leads to over exploitation of resources and thus their quick depletion. This is due to use of improved technology.
6. Improved technology is usually urban-based leading to rural urban migration and its negative effects such as congestion.
7. Increases the production of high-income products and this results into deterioration of the standard of living especially of the poor sections of the masses.
8. etc

Obstacles to technological development in developing countries

1. Inadequate financial resources/ funds limit technology capacity building
2. Limited scientific and skilled manpower to carry out research in modern technology.
3. Sabotage by developed countries which stand to lose market for their technology.
4. Limited market , also further discourages technological development
5. Political insecurity in some parts of the developing countries
6. Conservatism in many societies of developing countries
7. Easy access to modern and relatively cheaper technologies from developed countries
8. Poor education system
9. Limited entrepreneurial skills
10. etc

Technological transfers

Refers to the shifting/movement of new and efficient production techniques from one country to another, mainly from developed economies to developing economies.

The forms of technological transfer include:

1. Through importation of machines by individuals , companies and government (through international trade)
2. Through foreign aid
3. Through foreign direct investment.
4. *Through general exchange of information

Merits of technological transfer

1. ***Facilitates the exploitation of the country's resources*** thereby leading to increased output/ production of more goods and services. This promotes economic growth.
2. ***Promotes the production of better quality output***, hence improving on people's welfare. This is due to increased use of machines.
3. ***There is standardization of output***. This is due to the use of advanced technology.
4. ***Increases the level of output in the economy***. This is due to increased productivity and use of resources due to modern technology.
5. ***Reduces the wage bill for employers***. This is because of machines and employment of a small number of people.
6. ***Promotes the development and acquisition of skills by laborers***. This is due to continuous use of machines.
7. ***Reduces labour unrests and strikes***. This is due to the use of more machines than human labour.
8. Time is saved due to the use of machines and experts in production.
9. ***Facilitates the development of infrastructure*** such as power and energy, transport network. This facilitates production, movement of commodities.
10. Facilitates the transformation of factor inputs to make them better and more productive. This results into greater output.
11. Promotes social and cultural transformation which fosters development in the country.

Demerits of technological transfer /the cost of technological transfer

9. ***Encourages technological unemployment***. This is because it is usually capital intensive in nature (machines replace labour) and thus inappropriate in LDCs where labour is abundant. This leads to low standards of living.
10. ***Discourages local skills and initiative of the people to develop their own appropriate technology***. It undermines the development of local entrepreneurship.
11. ***Worsens income inequalities*** since few people are able/ afford to buy and use the technology. Therefore, income is concentrated in the hands of a few people or in smaller parts of the economy. *(This leads to low standards of living among the majority low income earners).*

12. **Leads to wastage of resources** due to mass production for a small market.
13. **Associated with high social costs** such as pollution of air and water with chemicals and fumes. This leads to low quality of life.
14. **Over exploitation of natural resources** and thus their quick depletion. This is due to use of modern technology which exploits more resources.
15. **Technological transfer is costly/Leads to high foreign exchange expenditure** on buying the foreign machines. This increases the balance of payment deficit and increase in external debts.
16. **Encourages capital outflow**. This is in form increased profit repatriation by the multi-national corporations.
17. It is associated with unevenly capitalistic development that is **urban-based leading to rural urban migration and its negative effects** such as congestion.
18. **Results into the transfer of outdated technology** i.e. discarded/abandoned technology in most cases-characterized by frequent break down and repairs and in turn, it becomes costly.
19. **Increases economic dependence and technological dependence** on developed countries yet modern technology is followed by inflow of expatriates who are expensive to pay.
20. Leads to production of high-income products and this results into deterioration of the standard of living especially of the poor sections of the masses.
21. Dependence on technological transfer through multi-national corporations (MNCs) easily leads to the creation of monopolies i.e. transfer of technologies by subsidiaries in LDCs.

Limitations to technological transfers

1. Limited financial resources, which limits the transfer of modern technologies into LDCs. This limits research and training and acquisition of new technologies.
2. High cost of importing new technology. It requires foreign exchange and adopting it to new local conditions.
3. Political insecurity in some parts of developing countries hinders transfer of technology. This is because it scares away the potential investors by reducing their confidence.
4. High level of conservatism, makes it difficult for new ideas and methods of production to be adopted. There is strong attachment to cultural , traditional and religious beliefs.
5. Poor education system, which does not produce skilled/ competent personnel to work with modern techniques of production. There is limited capacity to absorb new technology.
6. Prohibition by developed countries through patent laws/ rights and trade mark. The technologically developed countries sabotage the LDCs, since they want to maintain their markets in LDCs. This enhances technological and economic dependence.
7. Protective policies of the recipient countries.
8. Ideological differences between countries.
9. The inappropriateness / irrelevance of the technology transferred to LDCs. In most cases it is not suitable to local conditions and hence useless.
10. Limited labour skills.
11. Limited entrepreneurial skills

12. Under developed infrastructure such irregular power supply, poor roads. This limits the movement of factors of production and finished commodities.
13. Limited market for commodities. This implies reduced/low profits and hence discourages the production of more output using transferred technology.

Intermediate technology

This is the mid-way technology between the developed capital intensive and the less developed labour intensive technology.

OR Refers to a method of production which is neither so advanced nor so primitive for LDCs, in using equipment which is efficient in both technical and economic sense.

Intermediate technology attempts to strike a balance between labour and capital intensive methods of production. It is used in most of the small-scale industries in developing countries such as the use of ox-ploughs in cultivation, tailoring using sewing machine etc

Note: Modern advanced technology is the one thousand pound technology while the traditional technology is the one-pound technology. Intermediate technology is also called one hundred pound technology.

Characteristics /Requirements for intermediate technology include:

1. Basically uses the locally available raw materials(production should depend basically on local resources)
2. It is cheaper and can be affordable by a large number of producers.
3. It is relatively simple to use i.e. requires less skills required and suitable for maintenance;
4. It is basically rural-oriented technology
5. Production is based on the local market/ what is produced is mainly sold in the local market.
6. It is neither labour intensive nor capital intensive. It uses both labour and capital in fair proportions.
7. It is technically and economically efficient.

However, it is not easy to develop intermediate technology, but it can be done by:

- *down grading advanced capital-intensive technology to intermediate level.*
- *upgrading the traditional technology to intermediate level.*
- *Develop a new technology called intermediate technology*

Advantages of intermediate technology

1. ***Creation of more employment opportunities.*** This is because it uses a reasonable quantity of labour alongside machines. This addresses the unemployment problem.
2. ***Saves the scarce foreign exchange*** since limited imported inputs are used. Small-scale equipment locally produced is used alongside labour.

3. ***Increases productivity of labour*** to satisfy domestic demand. The use of simple machines increases output per worker in terms of quality and quantity.
4. ***Intermediate technology increases output by the small scale firms***, which in total increases the national output of the country. This promotes economic growth.
5. ***Promotes linkages among different sectors of the economy***, thereby minimizing wastage of resources in the production process.
6. ***Facilitates the utilization of local resources***, hence reduces dependence on imported inputs and creates income to local suppliers. This is because it is based on local resources. It reduces excess capacity in production units.
7. ***Reduces foreign dependence especially technological dependence***. It creates a technological base for the economy and makes use of the local resources.
8. ***Promotes fair income redistribution*** since many people can afford it and do work. This is because it is easily distributed geographically and many people are employed using this technology.
9. ***Promotes acquisition and development of skills by the individuals***, through using the technology. This is through innovations and inventions that create a technological base for developing countries.
10. ***Facilitates development of local small-scale industries*** in all parts of the country since it is easily located in any part of the country.
11. ***Facilitates rural development*** since it is rural-based. This in turn reduces regional imbalances in development.
12. Reduces rural urban migration and its negative consequences. This is because it is mainly rural based.
13. Reduces the gap between the technologically developed and technologically backward countries.
14. Intermediate technology is easy to adopt because it requires less skills and time. It is relatively cheap and thus affordable to LDCs.

Disadvantages of intermediate technology

- Requires a lot of research and yet this is difficult to undertake in LDCs due to scarcity of resources such as limited skilled manpower.
- Leads to production of inferior / poor quality goods which do not effectively compete on the world market.
- It is not appropriate to large-scale production especially in heavy manufacturing industries which require capital intensive technology.
- May not lead to rapid increase in output and thus limits the rate of economic growth and development.
- Leads to pollution of the environment due to poor disposal of wastes.

Limitations / hindrances of intermediate technology in LDCs

1. Limited finance in LDCs to undertake research and development to generate intermediate technology.
2. Limited skilled personnel i.e. scientists, engineers to carry out research, absorb new technologies and upgrade traditional/indigenous technology to suit the conditions of LDCs.

3. Conservatism/ cultural rigidities among many people. Many people lack the industrial culture, the few scientists are not innovative , less enterprising and have failed to develop the existing technologies.
4. Foreign sabotage by the rich industrialized countries ; which have superior technology and stand to lose if LDCs acquire modern technology.
5. Limited market /Narrow markets for output produced. Commodities made locally using intermediate technology face stiff competition from imported goods produced by superior technologies. The local people therefore prefer imported goods to locally made goods.
6. Unfavourable government policy, which does not give technological development a priority. There lacks a clear policy on transfer of technology, adaptation and assimilation.
7. Low level of innovations and inventions by the people.
8. Poor topography of the land such as hilly areas, valleys, swampy areas not favouring the use of such technology.
9. Political instabilities in some parts of the countries, which disenables people to carry out their work using it.
10. Production of inferior goods/ low quality goods which do not compete favourably on the world market.

Note:

- *Technically efficient technology* is one that generates best quality output in the shortest time possible.
- *Economically efficient technology* is one that generates output at low cost and provides a remedy to economic problems such as unemployment , income inequality etc

Appropriate technology

Refers to the technology which suits (is in line with) the prevailing physical, social and economic conditions of a country and enables full and efficient utilization of the resources.

These are the methods of production (technology) whose resource use keeps pace with LDCs' resource availability and whose products are suited to consumers. Appropriate technology changes with time.

Note: In labour surplus capital deficient LDCs , LIT is the appropriate technology while in capital surplus labour deficient MDCs, KIT is the appropriate technology.

Appropriate technology satisfies the following conditions /characteristics:

- a) Mainly uses the locally available resources
- b) It is comparatively cheap and simple to manage.
- c) Creates employment opportunities to all forms of the available labour.
- d) It is in harmony with the surroundings/ physical conditions of the country such as climate, relief.
- e) Covers both the rural and urban areas of the country.
- f) Develops from an indigenous base i.e. it is out of the traditional economic activities.

g) It is flexible depending on economic requirements of different periods of time.

Factors affecting the development of appropriate technology in developing countries

1. Availability of funds to purchase the equipment
2. Level of skills possessed by the people/ level of education and training
3. The size of market for the technology and its products
4. Level of infrastructural development
5. Level of entrepreneurial skills possessed by people
6. Nature of topography of the land
7. Level of conservatism among the people
8. The political climate of a country
9. Government policy regarding technological development
10. Level of external or foreign influence/ the level of dependence on imported technology.

Advantages, disadvantages and limitations of appropriate technology

(Refer to those of intermediate technology)

Qns:

- 1) (a) Distinguish between technological transfer and technological development
- (b) Explain the implications of technology transfer in your country

FOREIGN AID AND DEVELOPMENT

Foreign aid refers to the (*net*) transfer of resources in form of loans or grants or technical assistance from one country to another, usually from developed countries to developing countries or through multi-lateral agencies.

Foreign aid is assistance from foreign sources in form of money, commodities or services and all types of technical and development projects aid to national governments and their autonomous public bodies.

Note: The basic component of foreign aid is that the transfer of resources should be on concessional terms or softer than loans in world's capital markets (i.e. interest and repayment is less stringent than commercial terms)

Forms of foreign aid

1) Grants

This involves the transfer of resources without any requirement for repayment. It is absolutely free and non-debt creating source of resources.

2) Loan assistance

This involves the transfer of resources which carries a cost in form of interest and the principal sum payable as per terms and conditions of the loan agreement.

OR Resource transfers which must be repaid back with interest or not, in a given period of time. This creates external debt and if not paid as originally scheduled it creates a debt burden.

3) Technical assistance

Transfer of resources in form of high-level manpower or technical personnel/ experts from one country (donor country) to another country (recipient country). These include engineers, doctors, economists, research personnel among others.

Sources of foreign aid

A **Donor** is the country or agency that gives aid

While

Recipient is the country that receives aid from the donor and these are normally developing countries.

The main sources of foreign aid are:

a) Bilateral Aid

This is the assistance/aid granted by one government to another government directly (such as from Japan to Uganda). The major donor countries are Japan, USA, UK, Sweden, Denmark, china, France, Italy, etc. However, aid in this form often leads to aid tying and domination / manipulation by donor countries.

b) Multi-lateral Aid

This is the assistance from multi-lateral agencies and international organizations. Multi-lateral donors include: World Bank (IBRD), IMF (International monetary fund) , UNDP (United Nations Development Program) , EU (European union) and other united nations agencies. Most multi-lateral aid is intended for development and technical assistance rather than say, military aid.

Note: Other UN agencies include FAO, UNESCO, WHO, UNICEF, ILO, UNIDO (United Nations industrial development organization).

The purpose of multi-lateral aid was to overcome the problems of bilateral aid.

TIED AND UNTIED AID

Aid may be tied or untied. Untied aid is for general purpose and not any particular project.

Tied aid has political, social and economic strings attached. A considerable amount of foreign aid is tied aid-with conditions laid down by the donor country about how the aid should be used.

Aid can be tied by source, project or commodities.

(a) Tied to source (procurement tying)

This requires the recipient country to buy certain goods and services from the donor country. The donor dictates to the recipient country the specific country/source from which to buy goods. This tying prevents the recipient country from buying from the cheapest sources in other parts of the world. Failure to do this leads to stoppage of aid.

(b) Project tying (use tying)

This means that the donor country or agency requires the recipient country to spend or use the aid on a specific project such as road construction, dam construction, and education services. This can of aid distorts the development programmes of the recipient country especially where the projects considered are not a priority.

Note: Aid tying is the giving of foreign assistance with conditions /strings attached. Sometimes aid is tied to both source and project, and this is said to be **double tied**.

Role of foreign aid in the development process of developing countries (Arguments for foreign aid)

1. ***Closing/filling the savings-investment gap.*** Foreign aid supplements domestic savings and facilitates capital formation which enables LDCs undertake planned investment activities. This is because LDCs are poor with low per capita incomes and low saving capacity.
2. ***Closing/Filling the foreign exchange gap.*** Due to shortage of foreign exchange, the ability of LDCs to import capital goods, raw materials and other spare parts is limited. Foreign aid bridges this gap between export earnings and import expenditure.
3. ***Fills the skilled manpower gap.*** The skilled man power requirements of LDCs exceed locally available supply of trained manpower (such as for planning and implementing large government projects) and hence the need for foreign aid in form of technical assistance from developed countries.
4. ***Filling the technological gap.*** The technology level of LDCs is lower than the development requirements and hence need for foreign aid. Therefore, the ***transfer of technology*** improves factor performance such as labour productivity and skills in the recipient country.

In addition to filling the above gaps, there are other roles of foreign aid in development:

5. ***Foreign aid for humanitarian reasons/ alleviating effects of catastrophes.*** Countries benefit from relief aid to overcome natural calamities or catastrophes such as drought, famine, floods, earth quakes, epidemics, wars etc which cannot be handled with the available resources.
6. ***Increases government revenue, for covering recurrent and development expenditure (fills the government revenue gap).*** This is because the government's ability to raise revenue through taxation is constrained. Foreign aid gives budgetary support to the country to cover both recurrent and development expenditure. Aid constitutes a large proportion of the LDCs' budgets.
7. ***Foreign aid creates more employment opportunities.*** Appropriate aid injected in such sectors like agriculture and industry promotes linkages and thus employment generation, hence improving the standards of living.
8. ***Foreign aid improves/ strengthens international relations between the donor and recipient countries.*** This in turn promotes diplomatic contacts, trade contacts and increasing foreign exchange earnings.
9. ***Foreign aid in form of capital investment accelerates the rate of industrial growth in the country.*** Multi lateral agencies invest in various industrial projects, which in turn increase the level of production and thus promote economic growth.

10. **Foreign aid enhances security/ political stability of a country.** Foreign aid in form of military assistance enables the country to withstand foreign aggression and give protection to property, which is important for economic growth and development.
11. **Facilitating the development of infrastructure.**
12. **Increases local skills through training**
13. **Promotes the exploitation of local idle resources, and this minimizes resource wastage.**
14. ***Foreign capital speeds up the development process** and bridge the gap between the technologically advanced nations and the less developed countries. This is true where the aid is injected in strategic sectors such as agriculture and industry with many linkages and multiplier effects.

The increasing need for foreign aid by developing countries

Many LDCs are finding it difficult to survive without foreign aid and the increasing need for foreign aid is explained by the following:

1. **Frequent natural and man-made disasters.** These include famine, AIDS scourge, drought, floods, landslides etc, which are increasing the need for foreign aid.
2. **Rapid population growth rates in developing countries.** The available resources cannot cater for the ever growing population such as health services, education services and hence need for foreign aid.
3. **Falling commodity prices leading to declining terms of trade and balance of payment problems.** This increases the need for aid to improve the trade position, since LDCs exports experience falling prices.
4. **Rampant political conflicts and civil wars in less developed countries.** These lead to diversion of resources from productive areas to defense and this shortage leads to dependence on aid. It increases the need for aid in form of military assistance.
5. **Increasing mismanagement and leadership crisis in LDCs.** The increasing levels of corruption and embezzlement leads to falling levels of production and thus excessive reliance on foreign assistance.
6. **Increasing rate of brain drain, due to political and economic conditions in the LDCs.** This creates a skills gap, necessitating the need for foreign aid.
7. **The emergence of new nations** such as southern Sudan, Czech Republic, Singapore calls for massive donor support to enable them acquire self-reliance.
8. **The increased marginalization of LDCs in world trade and politics.** LDCs have been subjected to exploitation that increases poverty and the need for foreign aid.
9. **Developing countries are undergoing structural adjustment programmes,** transforming into market economies and thus calling for increasing foreign aid.

Problems associated with foreign aid (Arguments against foreign aid)

1. ***The burden of debt servicing and repayment, which undermines capital formation.*** The aid in form of loans carries interest which has increased over the years and the repayment period is short especially so with major donors like IMF. This is a burden to tax payers during repayment, by limiting capital formation.
2. ***Worsens the balance of payment problems of LDCs.*** The high interest rates on loans increases the foreign exchange expenditure, hence increasing the balance of payment deficit of developing countries.
3. ***Creation of a dependence syndrome/ encourages laziness among the locals.*** Foreign assistance makes people in developing countries lazy, corrupt and always expecting assistance from the international community, which does not owe them a living. This limits the rate of development in the recipient country. (Foreign aid undermines domestic savings through substitution)
4. ***Planning difficulty due to tied aid. Aid has political, economic and social strings attached especially bi-lateral aid.***
 - (a) ***Use/ project tying***—where the donor dictates the use of the aid distorts the development planning programs of the recipient country, especially where the projects are a non-priority. Projects using local resources are ignored and those using imported components from the donor country emphasized (and producing raw materials for the donor country).
 - (b) ***Source tying***—where the donor country requires the recipient country to import goods from it, prevents the recipient country from buying from the cheapest sources elsewhere in other parts of the world. (*High cost of borrowing due to aid being tied to source/ purchase tied aid*)
5. ***Foreign aid is unreliable and unpredictable/ not sustainable.*** It sometimes promotes non-commercially viable projects and where it does not come or fails to come in time, such projects come to a standstill or collapse. This undermines development planning in developing countries.
6. ***Foreign aid is associated with unemployment.*** Many projects put up by foreign aid tend to have a small labour absorptive capacity. In most cases, they use capital-intensive techniques and hence failing to create more jobs for the local people. This leads to low standards of living in the recipient country.
7. ***Foreign aid promotes foreign control and dominance/ undermines political sovereignty.*** It leads to interference in the political and economic decision-making by international agencies and donor countries. For example, aid from IMF requires reduction in government expenditure and liberalization of the economy. It may also require buying the exports of donor countries.
8. ***Military aid is more harmful than beneficial, because it increases conflicts*** in developing countries, yet in some cases it exceeds economic aid. It has political motives and it is used to maintain spheres of influence.
9. ***LDCs/ developing countries are turned into dumping grounds*** for outdated technologies and capital equipment under the guise of 'aid'. Furthermore LDCs receive expired drugs, foods etc under the guise of emergence relief causing health danger and killing local production.
10. ***Technical assistance is also problematic*** in that, the foreign personnel are sometimes not be acquainted /conversant with local conditions in the LDCs. The expatriates may be lacking experience

and only experiment in developing countries.*Sometimes foreign personnel are spying on the local politics and economy.

11. **Expatriates are expensive** for the developing countries since they are paid in hard currency and are treated like diplomats. This raises the costs some times higher than the returns on the aid. Therefore, foreign aid increases government expenditure in case of expatriates.
12. **Technical assistance leads to loss of confidence in the local manpower/ discourages local initiative.** Preference of expatriates for most major projects demoralizes local labour, encourages laziness and undermines development.
13. **Foreign aid makes governments unpopular.** In most cases, foreign aid is misappropriated and or embezzled by government officials and this often leads to failure of intended projects, making government in power unpopular.
14. **Underutilization of local resources/ reduced domestic production of some goods**
15. **Increases brain drain**
16. **Erosion of cultural values / undermines social cultural values**

Why do countries give aid? (Importance of foreign aid to donor countries)

1. **For political reasons/motives.** Countries give aid in order to strengthen political ties with the recipient countries and hence used to maintain spheres of influence in developing countries.
2. **For strategic and military motives.** Countries give aid to promote their military or strategic interests such as making them military bases. Some countries donate military hardware and other military equipment in order to test their strength in other countries especially developing countries.
3. **For ideological reasons (to promote political and economic ideologies).** Aid is a way of convincing countries into similar lines of development such as capitalism versus socialism during the cold war.
4. **To increase exports of the donor countries and hence national income.** Tied aid forces the LDCs to import certain commodities from the donor countries.
5. Countries give aid **to strengthen trade relations with the recipient countries.** This enables the donor country to easily obtain raw materials for its industries and market for its products.
6. **To dispose off surplus output from the donor country.** This in turn promotes price stability and hence encouraging further production in the donor country.
7. **For promoting foreign diplomacy.** It enhances the culture and influence of the donor country in the recipient country.
8. **To promote employment opportunities for the donor country.** Due to increased demand from the recipient country, production increases and hence more employment in the donor country. More so, expatriates from the donor country are sent to the recipient country under technical assistance and hence being employed.
9. **For humanitarian motives.** Countries give aid to save property and lives such as in case of famine or any other natural calamity (floods, landslides, and drought) in particular countries.

*** Why are donor countries reluctant to give aid to developing countries?**

1. Failure of LDCs to invest the aid in meaningful development projects
2. Failure to respect democracy and human rights by some governments in developing countries

3. Failure of many developing countries to honor their debt obligations. Many LDCs are pushing for debt cancellation instead of repaying, which discourages foreign aid inflow.
4. Failure of many developing countries to honor their debt obligations. Many LDCs are pushing for debt cancellation instead of repaying, which discourages foreign aid inflow.
5. Failure of some LDCs to respect the set conditionalities of IMF and the world bank as a precondition for foreign aid such as privatization, reducing government expenditure , wage freeze etc . the structural adjustment programmes not done.
6. The unpredictable political atmosphere in developing countries for example the frequent unconstitutional changes of governments through coups and rebel activities.
7. High levels of corruption and embezzlement in developing countries. Policy makers misappropriate aid to non-priority areas (and luxurious consumption) which has discouraged the donor countries.
8. The case of radical leaders and governments that consider aid as a tool of neo-colonialism and imperialism in their economies. This undermines the confidence of donors.
9. Threats of nationalization of assets owned by foreigners in LDCs and threats of debt repudiation (refusal to pay the debts) have all discouraged foreign aid inflow in some countries.
10. The end of the cold war (and the collapse of communism has caused a change in world order). Currently USA and its allies dominate the trends of events. Therefore, camps are no longer competing greatly using aid as was the case during the cold war.
11. Over ambitious projects which are never completed, thus wastage of the resources.

Possible ways of making foreign aid more beneficial to developing countries

1. ***LDCs should look for the cheapest sources of aid i.e. soft loans*** should be sought for—which have a long repayment period and carrying a low interest rate.
2. ***Advocate for debt rescheduling*** i.e. postponing the repayment of debts through negotiation with the lender. This can allow the LDCs to make necessary arrangements to repay.
3. ***Advocate for debt cancellation by the donors*** i.e. the debts should be converted into grants/ negotiation with the lenders who can sympathize and wave off the debts. This can relieve the highly indebted countries.
4. ***Ensure that foreign aid targets establishing import substitution projects*** instead of only export promotion projects. This can raise the efficiency of labour and improve the quality of life (education, health etc)
5. ***Direct aid to development/productive activities / ventures***, which projects generate money to pay back loans; instead of buying military hard ware or financing wars. This makes debt repayment easy.
6. ***Developing countries should reject aid that makes them perpetual dependants on other countries*** especially that with many strings attached i.e. they should accept aid the leads to internal capacity building and economic progress.
7. ***Should accept aid which has a maximum positive impact on the economy***. The aid should lead to development of technology, skills, enterprise and employment generation among others.
8. ***Profit repatriation should be restricted*** such as through foreign exchange control policies and setting profit quotas. This is to promote the rate of re-investment in the recipient country.

9. **LDCs should study the absorptive capacity of their economies** to ensure effective utilization of foreign aid (*e.g., loans should not exceed what the economic base can afford*). They should assess the entrepreneurial skills, administrative organization etc before seeking aid. In addition they should research into viable projects for funding.
10. Adopt strict laws against corruption and embezzlement of funds.
11. Mobilize more domestic resources to supplement the foreign resources/ aid.

Foreign direct investment (FDI)

Refers to the transfer of productive resources by **foreign individuals, companies and multi-national corporations** into a country in form of business operations/establishments.

Foreign direct investment/ foreign private investment occurs when foreign firms either establish production plants / factories in the domestic economy or acquire ownership of a domestic firm. Foreign direct investment may be in form of private or public capital. Private capital can be direct investment in various projects or indirect investment in securities.

Advantages of foreign direct investment

1. **Foreign capital fills the foreign exchange gap.** Foreign investors bring in foreign currency to finance their activities in the country and this minimizes balance of payment problems.
(*Alternatively, some foreign investors produce good formerly imported from other countries, which reduces the foreign exchange expenditure, hence improving the balance of payment position*).
2. Closes/fills the savings-investment gap.
3. **Fills the skilled manpower gap.** Foreign direct investment bring technical personnel into the economy and this promotes production.
4. **Facilitates training of local labour force in new skills** such as technical, scientific, managerial skills. This in turn promotes local production in the long run, as local firms employ personnel trained by foreign firms, hence increase in national income.
5. **Promotes infrastructural development**, since it requires large capital investment such as road construction, education facilities, power supply. The roads facilitate the movement of factors of production and output from various sectors, hence increased production.
6. Foreign capital investment **increases government revenue**. The profits earned by FDIs contribute to corporate tax revenue and other forms of taxes. This promotes the development of social services.
7. **Encourages efficiency among firms by creating competition** between local and foreign investors. This leads to improved quality and variety of output, which benefits the consumers such through wide choice. Foreign firms increase efficiency and productivity of factors of production.
8. **Promotes international understanding/ relations among countries, which leads to increased trade.** Through encouraging export promotion or import substitution projects by the foreign investors, the

country maintains strong political and economic ties with mother countries. This increases international peace and the benefits of trade.

9. **FDI accelerates economic growth.** Increased volume of goods and services are produced in the host country and promotes the rate of economic growth /increases the productivity of the economy.
10. **Promotes development of basic industries/ accelerates industrial growth.** Some foreign investors set up or take over basic industries such as steel industry, chemical industries, agro processing—hence industrializing the economy. It also encourages export promotion and import substitution industries undertaken by foreign investors.
11. **Creation of more employment opportunities within the local economy (host economy).** This is created in firms supplying inputs, the established firms and related infrastructure. The workers earn incomes which improves the standard of living.
12. **Facilitates technological transfer, research and development.** New production techniques and use of modern physical capital are brought in the country. This in turn increases the production capacity in the host economy/ better quality goods and services. (*fills the technological gap*)
13. **Promotes utilization/ exploitation of local resources.** FDI makes use of local raw materials such as fisheries, forest, clay, sand, stones which be lying idle. This reduces wastage of such resources and production of more goods and services.
14. FDI promotes backward and forward linkages in various sectors of the economy (multiplier effect). For example supplier of raw materials and buyers of bi-products.
15. Widens consumer choice due to production of a variety of commodities. Consumers select from a wide range of items which improves the standards of living.

Disadvantages of foreign direct investment

1. **Accelerates capital outflows / profit repatriation especially by MNCs.** This reduces the rate of re-investment in the host country as huge profits made by foreign investors are taken to the mother countries.
2. Foreign investors **usually out compete local investors**, due to their better management and high level of technology. This undermines the level of development of local skills, enterprise and increases unemployment.
3. **Worsens income inequalities**, due to wage disparities between those employed by the foreign firms and those employed elsewhere or those unemployed. This results into social tension.
4. **Gives rise to technological unemployment**, since foreign investment mainly involves capital-intensive techniques of production (which replaces labour with machines) and thus the surplus labour in LDCs is not absorbed. This leads to low standards of living.
5. **Increase rural urban migration and regional imbalance in development.** This is because the foreign direct investments/ firms concentrate in the urban areas. In turn, the urbanities have more skilled work force, better social and economic infrastructure than the rural areas.
6. **Foreign firms receive a lot of concessions from the government** in form of tax holidays, free land, subsidies, security ; which reduces government revenue. This makes the government discriminate against local investors.

7. **Over exploitation of natural resources** such as land resources, hence quick depletion. This is due to the use of capital-intensive technology and this distorts the development programs of the host country.
8. **Increases foreign interference in the political and economic decision-making of the host country** especially the MNCs. The foreign investors/ companies greatly follow guidelines from their countries of origin and always demand for many concessions from the government such tax holidays, free land for projects. (*Breeds foreign domination of the economy*).
9. **Increases external dependence of the economy.** The country greatly relies on foreign investors to bring in capital, technology and skills instead of building its internal capacity.
10. Foreign direct investment **promotes foreign culture in the host country** such as luxurious consumption habits, homosexuality, western dress code etc which conflict with the traditional cultural norms/ hence erosion of cultural and moral values.
11. **Associated with high social costs/ increases environmental hazards.** For example water and air pollution due to toxic substances and fumes from the production plants. This reduces the quality of life.

Multi-national corporations (MNCs)

These are companies or trading organizations with head quarters in one country but having many branches in different parts of the world.

There is international flow of resources, skilled personnel to LDCs through multi-national corporations such as Pepsi cola, Coca cola, MTN, Airtel, standard chartered bank, UBA, shell, Caltex, Total etc. these MNCs are based in developed countries like USA, Japan, Britain, china, etc

Characteristics of multi-national corporations

1. These are usually large firms with many subsidiaries worldwide, and most MNCs have their head quarters in Europe, USA and Japan where the activities are coordinated.
2. Most of them come with their technology and managerial skills.
3. Most MNCs are profit oriented and thus invest in business that can maximize profits like banking services e.g. Barclays, standard Chattered.
4. MNCs often operate in cartel arrangement to reduce competition in foreign countries.
5. They carry out large-scale advertisement and sales promotion for their products.
6. They are economically strong and at times may influence economic policies in LDCs.
7. They also engage in provision of services like mass media, insurance, banking etc, and engage in importation and distribution of fuel

Advantages of multi-national corporations

1. They bring in foreign currency hence filling the foreign exchange gap.
2. They enable LDCs to acquire highly skilled manpower and managerial skills, hence closing the skilled manpower gap.

3. They provide a variety of goods and services which otherwise would be imported, hence LDCs save foreign exchange.
4. Carrying out research which improves productivity and quality of the goods in LDCs.
5. Generate government revenue through taxation.
6. MNCs create competition that enables local firms to improve on the quality of their commodities in capitalistic economy.
7. MNCs develop social and economic infrastructure such as roads, power, banking facilities and other facilities.
8. Provision of employment to the local people such as those in the factories and service sections of the companies.
9. Promote international relations between the countries of origin and the host country. This increases the level of participation in foreign trade.
10. Facilitate exploitation of local resources, leading to optimal utilization.
11. Facilitate technological transfer to the developing countries
12. Fill the savings –investment gap

Disadvantages of multi-national corporations

1. Profit repatriation by the MNCs, which lowers the rate of re-investment. There is high capital flight leading to BOP problems.
2. MNCs usually out compete the local producers, as they have the capacity to produce at low costs and can sell high value goods at low prices.
3. Many MNCs are urban-based and this accelerates rural-urban migration and regional imbalance in development.
4. Discourage the development of local managerial skills due to the use of expatriates in management.
5. At times lead to the transfer of inappropriate technology to developing countries.
6. MNCs are given too many concessions by government such as tax holidays, subsidies etc which reduces public revenue.
7. MNCs use their economic power to engage in national policymaking i.e. political and economic decisions which are centrally to the needs of the people in the country.
8. MNCs lead to external dependence of the economy.
9. They employ capital-intensive techniques which results into unemployment and discouraging development of local skills.
10. MNCs worsen the income disparities / inequalities in developing countries.
11. There is irrational exploitation of some natural resources leading to quick depletion of certain resources.

Obstacles /hindrances to foreign private investment in Uganda

1. Small domestic market, due to low levels of income and increased poverty among nationals.
2. Poor infrastructure such as poor roads, irregular energy supply and limited banking facilities.
3. Inadequate skilled labour in the country, which increases their expenditure on the expatriates.
4. Strict foreign exchange controls

5. political instability in some parts, which limits economic activities
6. High taxation levied on foreign investors by government/ unfavourable investment climate such as high degree of bureaucracy.
7. Employment regulation for example they are forced to employ local people in certain key positions.
8. Corruption and embezzlement/ low level of accountability
9. Poor land tenure system
10. Limited strategic/ basic raw materials/ natural resource base
11. High degree of conservatism among the population
12. High rate of inflation

Steps being taken to attract foreign investors in Uganda

1. Offering investment incentives such as tax holidays, free land, investment allowances
2. Developing infrastructure
3. Further privatization of public enterprises
4. Further liberalization of the economy
5. Intensifying / Engaging in International publicity or campaigns of investment opportunities or strengthening bi-lateral ties
6. Expanding markets by joining economic and regional corporations such as COMESA, EAC
7. Establishing of specialized institutions such as UIA
8. Using sound macro-economic policies to attain economic stability, forex rate stability, price stability
9. Ensuring political stability in various parts of the country
10. Undertaking appropriate manpower training programs/ training people to equip them with the required skills
11. Reforming the land tenure system
12. etc

Concepts

- **Soft loans**
These are loans given at low rate of interest, with long periods of repayment. They are sometimes called concessionary loans like those from IMF
- **Hard loans**
These are loans given at the current market rate of interest with a short repayment period.
- **Absorptive capacity**
This is the ability of a recipient country to use foreign capital in form of loans, grants or other foreign aid efficiently and productively.
Where a country cannot appropriately and effectively use foreign resources due to a technological gap, lack of cooperant factors of production, corruption and embezzlement etc, it is said to have low absorptive capacity. The factors that determine the absorptive capacity of a country are: the size and quality of labour force, level of entrepreneurship, level of savings, the degree of administrative organization etc

EDUCATION AND DEVELOPMENT

Education refers to the process of learning, involving accumulating of knowledge, ability and skills. Education can be formal, informal or non-formal.

Education is an investment in human capital. It is an economic and consumer good as well as a capital good. It is therefore considered an investment targeting achievement of sustainable economic development.

Education is in the following forms/ modes:

Formal education, non-formal education and informal education. Formal education is a systematic instruction that follows a detailed curriculum under taken for a particular period of time in special settings called schools. Non- formal education is any organized educational activity outside the established formal school system provided to the people to acquire functional knowledge and skills for productive work such as through conferences, seminars, workshops etc. informal education is the lifelong process whereby individuals acquire attitudes, skills, values, and knowledge from daily experience and influences of the environment such as from family, neighbors, work, play, etc

Education as a consumer good

1. The recipient people derives utility from having education
2. Education increases the quality of life and enables one to appreciate life.
3. Society derives utility by living with an educated person i.e. education improves society as a whole.

Education as an investment

1. Education costs money and has a price to be paid. Education is not free and society spends on buildings, scholastic materials etc .It is a scarce commodity.
2. Education has opportunity cost like all other investments. For one to have education, he has to forego current consumption or investment in other ventures.
3. It is an investment in human capital since it increases the quality of manpower and productivity of labour.
4. It is associated with risks and uncertainties such as failing to pass, expulsion, failing to finish, failing to get employment.
5. Like all investments, it has long run returns. It generates future income to individuals and services to society.

Role of education in the development process

1. ***Education results into equitable distribution of income in the long run.*** This is true where the majority of the people are educated and employed. Effective demand increases and thus better standard of living.

2. **Controlling population growth.** Education delays marriages and educated people tend to produce fewer children especially for women, the longer the stay in school. The masses are educated to regulate birth rates.
3. **Education facilitates the industrialization process.** This is because it provides technical and entrepreneurial skills which are important for industrial growth. Education also increases aggregate demand.
4. **Provision of more employment both directly and indirectly.** This is because it provides knowledge and skills to people such as teaching staff, construction workers, stationary dealers, uniform makers, support staff etc. it makes people more employable and hence increased standard of living.
5. **Education is a means of social change/ social transformation.** It eradicates the primitive attitudes, beliefs/ traditional values and negative attitudes towards work e.g. superstitions, hence increasing national income.
6. **Education increases political awareness.** Education promotes national unity, spirit of nationalism and democracy, which are important for economic development. It also creates more voters who are informed.
7. **Education creates good conditions for government policy formulation and implementation** such as policies of industrialization, agricultural development, and environmental conservation. Thus, it serves the political function.
8. **Promotes technological progress and research.** It facilitates research and experimental projects as it produces scientific personnel.
9. **Education increases labour mobility.** It equips workers with required skills to move/ transfer from one occupation or place to another. Labour can get wider opportunities for highly paid jobs that exist in other areas. This also enables firms to acquire competent and skilled manpower, hence increased productivity.
10. **Education contributes to economic growth** i.e. increase in the country's output and exports. For example, it increases the capacity to acquire foreign technology, vocational education raises skills and managerial capacity.
11. **Fosters rural transformation** such as rural-based education programmes—adult literacy, agricultural extension, public health, community based development programmes. People easily understand and implement government development projects.
12. **A tool for liberation from the vicious circle of poverty, disease , and ignorance.** For example, it raises income and spending on food but also the capacity to make diet choices, hence better standards of living.
13. Education **increases the efficiency and productivity of labour.** It provides labour with technical knowledge, values and skills; which increases the creativity and productive capacity of the economy.
14. **Provides market for other sectors of the economy** for example stationary from the paper sector, computers from the trade sector, uniforms from textiles, food from agriculture. This leads to increase in national income.

Negative roles

1. Increases/worsens income inequality. A few more educated people are paid higher wages compared to the majority who are less or uneducated. This creates social tension.
2. The education system in developing countries is too theoretical. It trains more people for white-collar jobs and contributes a lot to educated unemployment. The system puts less emphasis on thinking and practical problem –solving.
3. Education involves many risks such as failure to pass leading to wastage of resources.
4. Education has a high opportunity cost, in that a lot of productive work is foregone to go school or to invest in education (especially with a large number of full time students). There is reduced alternative investment capital and reduced supply of labour.
5. In developing countries, education contributes less to the development of rural areas such as agricultural transformation. This is because it does not train people to work in rural areas and yet government puts more productive facilities in urban areas.
6. Education increases the demand for imported luxurious goods , which require a lot of foreign exchange such as new car models, videos, computer systems etc
7. Results into high rates of rural urban migration and associated problems such as high cost of living in urban areas, creation of slums, etc. educated people prefer to live in urban areas.
8. It increases the rate of brain drain and associated problems such as inadequate skilled labor in the domestic economy. Many skilled personnel leave their country and work in other countries where working conditions are better.
9. It erodes away the cultural values and morals of a country because educated people adopt cultures from foreign countries. This is because they consider them modern.
10. Results into creation of social classes i.e. illiterates and literates, hence social tension.
11. At times, it is a source of political and social discontent. Because many educated people are unemployed , they easily participate in riots

Uganda's education system

1. The education system is a four-tyre model, with 7 years in primary, a four years in ordinary level (UCE) and 2 years in advanced level (UACE) and tertiary institutions (3 years and above)
2. There are a number technical institutes and vocational training colleges (VTCs)
3. The system is mainly theoretical with a few practical subjects. The system tends to be examination—oriented resulting into massive job seeking.
4. The majority of the education institutions are urban-based.
5. The cost of education is high and increasing at a high rate and the government contributes little towards education.
6. Of recent, there is universal primary education, universal secondary education, and a few scholarships in vocational colleges and universities. However, a few people have access to higher education partly due to rising costs.

Problems associated (created by) with the current education system in Uganda

1. The present education system is too theoretical and puts less emphasis on practical subjects. This in turn creates more job seekers than job creators leading to increased educated unemployment.
2. The system increases rural-urban migration, since the educated despise manual labour and agriculture.
3. Failure to promote a sense of national unity. Many educated people tend to focus national issues on narrow sectarian lines.
4. Failure to promote social justice and equity. This is because the education is expensive and affordable by a few people, leading to gross inequalities in income and opportunities.
5. The high cost of education such as the cost of buildings , teachers' salaries, the high opportunity cost of income lost, the high dropout rates
6. Failure to promote a spirit of self-reliance, but instead a dependence syndrome. Educated people expect higher pay at lower productivity and hence a burden to society and government.
7. The present education system is geared towards examinations and acquiring of qualifications, promoting western values; instead of creating a sense of social responsibility and innovativeness.
8. Poor manpower planning i.e. failure to adjust supply to demand for labour. There is surplus man power in some fields and a deficit of manpower in other fields.
9. The system creates rampant brain drain due to poor working conditions , wide spread educated unemployment.
10. Formal education in Uganda is associated with a demonstration effect where the educated prefer luxurious foreign goods, and adoption of western pattern of life. This worsens the balance of payment problems.
11. The system leads to social classes and discrimination between highly educated and those with low education or those who have not undergone formal education.

Possible measures to improve the education system

1. Emphasize employment based vocational training such as agricultural colleges, research institutions , technical institutes , practical subjects
2. Emphasize cost-recovery approach in higher education to ensure efficiency and equity such as cost-sharing at university level.
3. Strengthen universal education such as UPE, since it has the highest social rate of return. It creates equity and employment.
4. Consider quality in schools such as buying cost-effective inputs and providing adequate facilities in schools to realize greater student achievement. This can reduce rate of school dropouts.
5. Encourage private investment in education such as in polytechnics, university etc increase opportunities for education available.
6. Integrate the education system in the community setting such as Adult literacy campaigns, agricultural extension services, Alternative Basic Education for Karamoja (ABEK).
7. Encourage work-study courses to expose students to the world of work and enable them to earn money for study costs.

8. Target rural educational growth to reduce geographical disparities in distribution of educational institutions and performance. This calls for adequate facilitations at all levels.
9. Proper manpower planning is necessary to adjust supply to the demand for labour in various sectors of the economy i.e. to minimize shortage of human resource in some fields and excessive supply on other fields.
10. Improving the working conditions such as increasing salaries, job security.