

AGRICULTURE IN UGANDA

Agriculture is the growing of crops and rearing of animals for either home consumption or commercial purposes.

Arable farming is the growing of crops like beans, maize, coffee, banana, groundnuts, cassava, etc while livestock farming is the rearing of animals like cattle, goats, sheep, piggery, poultry, etc for either or.

STATUS OF AGRICULTURAL SECTOR IN UGANDA

The status / trend of the agricultural sector in Uganda is as follows;

- Uganda is an agricultural country employing over 75% of her total population mainly in rural areas either directly or indirectly / It employs the largest population both skilled and semi-skilled.
- It contributes about 49% to GDP annually from the produce sales like coffee from Mbale; tobacco from Moyo and Nebbi; and vanilla from Mukono and Kayunga / Agriculture is the largest contributor to national income and core of Uganda's development.
- It mainly practiced on subsistence level for home consumption like cattle of the pastoralists in Kaabong, Kotido and Moroto of Karamoja region and Mbarara of Ankole – Masaka corridor.
- Agriculture is highly dependent in nature like soil fertility and rainfall.
- The main traditional cash crops are; tea, coffee, cotton and tobacco.
- New cash crops introduced / non-traditional cash crops are; flowers, vanilla, pepper, maize, etc.
- Uganda's main food crops are; plantains, cassava, sweet potatoes, millet, sorghum, corn, beans, and groundnuts.
- It has a positive trend towards modernization / it is gradually improving and becoming modernized.
- It is the main source of foreign exchange for Uganda's economy especially in exporting coffee.
- It is the main source of government revenue in terms of taxes.
- It is mainly done by the peasants in rural area on individual basis.
- Arable farming is the most dominant / is majorly carried out.
- Commercial farming is dominated and controlled by foreigners like Madhvani of Kakira sugarcane plantation in Jinja, Mehta of Lugazi sugarcane and tea plantations in Mukono, and Sudhir of Rosebud flower farm in Entebbe.
- The level of production is still low due to the low level of technology (labour intensive tools) used like use of hands and hoes by cassava growers in Kayunga, banana growers in Masaka, coffee growers in Wakiso and vanilla growers in Mukono thus poorly developed.
- The major crop exports are; Arabic coffee from Mbale, tea from Kasaku in Mukono and Mubende and vanilla in Mukono.
- Small holding farms are dominant in Uganda.
- Agricultural productivity is at a slow speed.
- It is the major supply of raw materials to Ugandan industries (agro-based).

AGRICULTURAL SYSTEMS IN UGANDA

These refer to the types of agricultural method, crops grown, animals reared, the type of technology used in a given area / region which are very much related to climatic zones in Uganda.

The major agricultural / farming / agrarian systems in Uganda are as follows;

The intensive – banana – coffee – cattle system is found on Lake Victoria crescent in districts of Mukono, Kampala, Wakiso, Mubende, Masaka, Jinja and Mpigi.

Northern and Eastern Cereal – cotton - cattle system is dominant in Kumi, Soroti, Katakwi, Apac, Gulu, Lira, Kitgum, Tororo and Palisa.

West Nile – Tobacco – cassava – cereal system is practiced in Nebbi, Arua, Moyo, Adjumani and Gulu.

Afro mountain system is found in Kisoro, Kabale, Mbale, Kapchorwa, Kabale, Bundibugyo and some parts of Kasese.

The pastoral - cattle system is found in Moroto, Kotido, Kaabong, Nakapiririti, Nakasongola, parts of Rakai, Mbarara and parts of Ntungamo.

Western banana-coffee-cattle system in Masindi, Hoima and Bushenyi.

Central banana- cotton- millet system in Kayungu, Luwero, Kiboga and Mubende.

SKETCH MAP OF UGANDA SHOWING THE AGRICULTURAL SYSTEMS.

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FACTORS INFLUENCING THE AGRICULTURAL SYSTEMS IN UGANDA.

The following factors in combination are entirely responsible for the development of the agrarian systems in Uganda:

ENVIRONMENTAL FACTORS.

1. CLIMATE is the major factor influencing agricultural systems in that;

In areas with an equatorial climate, rainfall is heavy usually over 1500 mm per annum and well distributed throughout the year and temperature generally varies from 25°C to 27°C. Such type of climate have favoured the growth of perennial crops such as bananas, coffee and tea around L. Victoria basin e.g. Lugazi plantation, tea growing at Kasaku, Coffee growing in Masaka etc.

In areas with tropical climate, rainfall ranges between 1000 mm and 750mm per annum and temperatures relatively hot about 27°C. These areas experience alternate wet and dry seasons giving rise to the growing of seasonal crops like maize, millet and Simsim.

The tropical climate also gives rise to the growth savanna grassland, which has promoted live stock rearing. This has led to the development of Ankole – Masaka ranching scheme in Mbarara and other ranches in other areas like Bunyoro and Toro.

Crops that withstand cold temperatures like 0°C have been grown in areas with temperate / montane climate. In Uganda, temperate climate is experienced at high altitude areas e.g. wheat growing in Sebei, apples in Kabale and Kisoro, etc.

Nomadic pastoralism is found in areas, which receives rainfall less than 750mm per annum. This rainfall therefore is little and unreliable and with temperature often rise above 29°C e.g. in Karamoja, parts of Rakai, Kotido, Moroto, Kaabong, Buliisa, Nakasongola, etc, local breed livestock, which withstand such harsh conditions, are kept.

2. EDAPHIC FACTOR concerns with the soil nature and their characteristics which influences the agricultural systems in that;

The fertile volcanic soils made of ash and cinder in Kigezi and the slopes of Mt. Elgon have favoured the growing of coffee, bananas, sweet potatoes, etc. the Afro – montane system is also favoured by the fertile loam soils on Mt. Slopes of Rwenzori.

Infertile soils such as those found in Buluri and parts of Karamoja discourage the growing of crops and therefore animal rearing dominates.

The poor skeleton laterite soils on the hilltops in most parts of central Uganda discourage the growth of some crops and hence are used for livestock grazing.

Intensive growing of bananas, Robusta coffee and tea in the Lake Victoria basin is favoured by clay loam soils where as the acidic soils in the same basin have led to growth of sugarcane, yams rice and palm oil trees in Kalangala district.

The cotton – cereal – cattle in many parts of Northern and Eastern Uganda as well as West Nile - tobacco are all supported by soils, which are light sandy loams with low medium fertility.

3. ALTITUDE influences the agricultural systems in that crops, which require cold temperatures such as Arabica coffee, are grown in high altitude areas. Other crops grown in high altitude areas include; wheat and Irish potatoes in Kabale, Mbale, Kapchorwa and on the foothills of Rwenzori Mountain. Crops like Robusta coffee and bananas are grown in low altitude areas such as Lake Victoria basin, Bushenyi, Kiboga, etc because they require hot temperatures.

4. RELIEF influences the agricultural systems in that hilly and mountainous areas have favoured terrace farming as mechanized agriculture has been discouraged because of the steep slope in Kisoro and Kabale.

Valleys have led to the growth of water loving crops like rice, yams and vegetables in Paliisa, Jinja, Iganga, Kabale, ... while the flat, gentle and underlating relief in the Eastern, Central and northern Uganda have favoured mechanized farming like in Mukono on Lugazi sugar plantation, in Jinja on Kakira sugar plantation, in Iganga on Kibimba rice scheme, ...

5. DRAINAGE plays a very important role in influencing the development of agrarian systems e.g. tea, bananas and coffee have been grown in well drained areas while rice, yams, sugarcane, ... have been grown in poorly drained areas which are waterlogged along river banks and lakeshores. Also poorly drained hilltops and other steep slopes have the favoured the growth of pasture for cattle rearing.

6. NATURE OF VEGETATION influences the agricultural systems in that areas with tropical climate support the growth of savanna grasslands hence giving rise to animal rearing e.g. in Teso, Nakasongola, Buliisa, Northern and Western Uganda. While those with equatorial rainforest and montane vegetation due to their attractive conditions in terms of fertile soils coupled with heavy rains, has favoured the growth of coffee, tea, vanilla and bananas especially in the crescent of Lake Victoria. The swamp vegetation has led to the growth of sugarcane, yams and rice as well as cattle grazing.

7. BIOTIC FACTORS in that the spread of pests and diseases affects the development of the agrarian systems where by the existence of pests and diseases such as tsetse flies, which cause sleeping sickness among human and Nagana in livestock discourage settlement as well as livestock rearing e.g. in Southern Busoga and parts of Bunyoro. Whilst areas with low incidents of pests and diseases have led to crop growing like in Kigezi, Buganda, and Bugishu.

NON ENVIRONMENTAL FACTORS:

8. LAND TENURE SYSTEM has affected agricultural systems differently in that areas like Kotido, Moroto, Kitgum, Nakapiripiriti there is communal ownership of land which has promoted pastoralism.

The inheritance system in areas such as Kigezi, Kabale and other few districts has resulted into land fragmentation. The land is divided into smaller plots to the sons when the head of the family dies. The individual holdings become too small in size over a period of time limiting the use of machines (mechanization)

9. CAPITAL influences the agricultural systems because it determines the level of investments in the agricultural sector. Many farmers in Uganda practice subsistence farming because they lack adequate capital to invest in the farming like coffee growers in Masaka. Whilst large sums of capital are involved in large scale and commercial farming e.g. parts of Mbarara use of large sums of capital to buy exotic animal breeds, fencing, buying animal feeds, pesticides, etc thus ranching.

10. MARKET. The distance from markets such as urban centres and processing centres has also had an effect on agricultural systems. Perishable crops such as tomatoes, cabbages, fruits, vegetables, are often grown near urban centres so that they can be sold before going bad.

11. LABOUR is a vital factor affecting agricultural systems in that subsistence farming is based mainly on semi skilled and family labour thus intensive cultivation. Whilst skilled labour and part of semi skilled is employed on large plantations in form of researchers, mechanics, agricultural efficiencies, etc like tea growers in Buyikwe.

12. POPULATION DENSITY influences the agricultural systems in that areas with high population density, pressure on land is high and so the land is over worked and divided into small plots thus permitting intensive growing of bananas, sweet potatoes, cassava, vegetables and legumes in Kabale and

Kisoro while areas with low population density tend to practice pastoralism as large lands is needed for it e.g. parts of Ankole- Masaka corridor in Mbarara, western Bunyoro in Buliisa and Karamoja in Kaabong.

13. CULTURE AND CUSTOMS influences the agricultural systems in that areas like among Karamojongs in Kaabong, among the Bahima in Kiruhura, etc took up cattle keeping as part of their life thus pastoral system. On the other hand, crop growing is much emphasized by typical cultivators and mainly depend on solid food for their livelihood e.g. the Buganda (Banana), Busoga (sweet potatoes), northerners and the Bunyoro (millet) as well as Ateso people (millet for food and local beer), Bakiga (Irish potatoes), etc

14. GOVERNMENT POLICY has facilitated the development of the farming systems in that the colonial government led to the growing of cash crops in different regions of Uganda like coffee in Buganda, Bugishu, Kigezi thus banana- coffee system, cotton and tobacco in northern and West Nile respectively thus millet – cotton cattle system and West Nile tobacco. Further more, the Ugandan government led to the establishment of rice irrigations like Doho, Kibimba, Mubuku as well as vanilla growing in Mukono, sugarcane in Lugazi, Kinyara and Kakira, palm oil tree growing in Kalangala and upland rice in different parts of Uganda.

15. TECHNOLOGY has determined different farming systems in that the high levels of technology has led to extensive growing of sugarcanes in Lugazi, Kasaku, Kibimba, Doho, ...due to access to modern and scientific methods of farming like irrigation facilities and use of machines, artificial fertilizers improved seeds and pesticides while ox ploughing has led to millet- cotton cattle systems in eastern and northern Uganda.

16. THE LEVEL OF EDUCATION has influenced the skills and knowledge passed on to the farmers in terms of farming techniques e.g. the pastoralists in Kaabong have low education levels which has called for the continuous rearing of animals on subsistence basis. This applies to rotational bush fallowing and shifting cultivation among the Baganda in Mpigi, Basoga Bugiri, Banyoro in Masindi, ... while the attainment of better education in farming techniques has led to large scale commercial farming mainly on plantations and estates like at Kasaku tea estate, Rosebud floricultural farm in Entebbe, Nsimbi horticultural farm in Mpigi.

17. TRANSPORT AND COMMUNICATION has influenced the agrarian systems in that the existence of improved transport network to processing plants and market centres for agricultural produce in Wakiso, Mbale and Kabale have led to the growing of coffee, tea, sugarcane, flowers, fruits and vegetables as well as dairy farming while areas with poorly developed transport network for agricultural yields have disfavoured commercial crop growing especially perishable crops in Kaabong, Moyo, Kitgum, ...

CROP HUSBANDRY (CROP FARMING) IN UGANDA

COFFEE GROWING IN UGANDA

Coffee is the most important cash crop still grown in Uganda.

In 1960's up to date, coffee was and is the leading foreign exchange earner of Uganda.

Most of the coffee beans are exported to Europe and America.

A small percentage is consumed locally by beverage industries.

Coffee is mainly grown by labour intensive technology

Coffee is mainly on small farm holdings.

The major types of coffee grown are Arabica coffee along the slopes of Mt. Elgon, West Nile, Robusta around the L. Victoria crescents and colonial coffee along the shores of L. Victoria

The main coffee growing areas in Uganda are;

The slopes of Mt. Elgon in Mbale; Bundibugyo and Kabarole on the slopes of Mt. Rwenzori, in Rakai, in Nebbi and parts of Mbarara and Bushenyi for Arabica coffee mainly.

The shores of L. Victoria mainly in Jinja, Masaka, Kampala, Mpigi, Mukono, Luwero; and Mubende and in parts of Mbarara for Robusta and colonial coffee for Robusta and colonial coffee mainly.

COTTON GROWING IN UGANDA

Cotton is an important traditional cash crop growing in Uganda.

In 1960's, it was the second foreign exchange earner of Uganda.

Most of the cotton (lint) is exported to Europe and America and only about 10% of the total annual production is consumed locally by textile industries.

Cotton growing is mainly labour intensive / done by hand - hoe

Cotton is mainly grown on small farm holdings.

The major types of cotton are inorganic cotton dominated in most parts and organic cotton mainly in central part.

The main cotton growing areas in Uganda are;

Masindi and Hoima (Bunyoro);

Gulu and Lira (Acholi and Lango);

Soroti and Kumi (Teso);

Tororo, Mpigi, Masaka and Luwero (Buganda);

Jinja, Kamuli and Iganga (Busoga);

Western Uganda in Bushenyi (Ankole); Kabarole (Toro) as well as Kasese.

IRRIGATION FARMING involves the use of huge amount of water from rivers and lakes to supplement water from rainfall so as to promote crop growing in areas where rainfall is little, unevenly distributed and unreliable.

In Uganda, irrigation farming is carried out in the areas of Kasese at Mubuku scheme, Kalungu at Lwera swamps, Bugiri at Kibimba scheme (Tilda), Butaleja at Doho, Kamuli at Kige and Lira at Olwenyi.

HORTICULTURE involves intensive growing of perishable crops such as flowers like roses and other cut flowers; fruits like pineapple, passion fruits, avocado and desert bananas; and vegetables like egg plants, cabbages, etc on small piece of land near market areas using scientific means and modern methods leading to high production for internal and foreign markets.

It is also known as **market gardening / truck farming**.

It is mostly practiced in densely populated areas with land shortage near urban centres due to well-developed transport routes and ready market as the products are highly perishable.

The following are examples of horticultural farms in Uganda;

Rosebud flower and Victoria flowers in Wakiso.

Nsimbe (FIDUGA) horticultural estate in Mpigi.

Wagagai flower estate in Kasenyi in Wakiso.

Pearl flower estate in Ntungamo.

Fruit and vegetable farms in Kampala, Mukono, Kabale and Kisoro.

CHARACTERISTICS OF MARKET GARDENING IN UGANDA

- It carried out on small piece of land intensively (farms are small sized).
- It is practiced within the vicinity of the market centres such as industrial, urban and mining areas.
- High production per unit area is got because of using modern and scientific methods.
- Mixed farming is practiced like growing crops and rearing animals.
- Labour intensive technology is used because of small piece of land.

- Farming is continuous (intensively done) because of applying fertilizers.
- They mainly grow cereal and annual crops, which are, harvested in a year like carrots.
- Farm products are perishable therefore good means of transport and ready market are available.
- They use modern and scientific methods like spraying, crop rotation and application of fertilisers.
- The market gardens are privately owned.
- Hybrid varieties are grown like apples, flowers, onions, red pepper, cabbages, tomatoes, mangoes and oranges to fetch high prices.

FACTORS FOR THE DEVELOPMENT OF MARKET GARDENING IN UGANDA

There are physical and human factors.

- Water supply in low lands, valleys near water bodies like using L.Victoria.
- Limited pests and diseases because of cool climate e.g. growing fruits and vegetables in Kabale.
- Presence of flat and gentle slopes helping in transport, mechanization, drainage.
- Strategic location near transport routes, marketing centres e.g. near Kampala.
- Advanced science and technology like spraying, use of fertilizers and glass houses like Kajjansi, roses.
- The use of better breeds with quick maturity pest and drought resistant leading to high production like Wagagai flower estate.
- Adequate capital used for financing agricultural activities like flowers.
- Wide market both internal and external in towns like Kampala, Jinja and exporting to other countries like Belgium, Rwanda and South Sudan.
- Modern transport and communication by using roads and air transport for exporting.
- Presence of agro-based industries like dairy factories making beverages like Jesa farm.
- Political stability and security attracting investors like Nsimbe estates in , Wagagai flowers.
- Positive and supportive government policies like giving loans like Nsimbe estates.
- Presence of research stations leading to better breeds, control of pests and diseases e.g. in Kawanda.
- Labour supply both the skilled and semi-skilled.
- Good management of educated and modern farms keeping records.

IMPORTANCE/ EFFECTS OF MARKET GARDENING IN UGANDA

Positive effects;

- Creation of employment opportunities leading to high standards of living like Wagagai flowers.
- Generation of government revenue by taxing people, companies improving national income.
- Encouragement of economic diversification by influencing other activities reducing dependence burden.
- Growth of urban centres near markets and industries like Nakasero market, Owino market.
- Development of transport and communication network like roads, Entebbe airport.
- Source of food supply like fruits, vegetables, eggs, beef, pork like in Kampala and Jinja.
- Promotion of education and research like fieldwork experiments and demonstrations like Wagagai flowers.
- Utilization of a small piece of land suitable for densely populated areas like Kabale and near urban centres
- Encouragement of mixed farming due to price fluctuations as the by-products of animals are used in the garden and by-products of gardens are used for animals like Nsimbe estates.

- Promotion of soil conservation because of farmyard manure and wastes.
- Earning of foreign exchange by exporting fruits, flowers and vegetables to Belgium, Holland, Rwanda.
- Promotion of international relationship and regional cooperation with Belgium, Rwanda, Holland,...
- Facilitation of constant production because of using irrigation farming, fertilizers, spraying, intensive care, ... like Nsimbe.

Negative effects;

- Soil exhaustion because of monoculture and specialization like flower growing like at Wagagai.
- It is tiresome and expensive because of using labour intensive technology like at Nsimbe estates.
- Products are perishable and expensive for storage e.g. milk, meat and tomatoes.
- Low production because of using small plots reducing on exports and farmers income.
- It is not easy for peasants because of using scientific modern methods, irrigation, glass houses.
- Environmental degradation because of deforestation, swamp reclamation like at Wagagai flowers.
- Urban problems because of population increase around marketing areas and industries like Owino market.
- Profit repatriation by foreign investors causing capital outflow like at Nsimbe estates.
- Diversion of labour and capital affecting other sectors.
- Regional imbalances causing economic problems like Wakiso
- Breeding grounds for diseases and vectors because of water-loggedness.

PLANTATION AGRICULTURE is the growing of a single perennial crop on a very large scale for commercial purposes using scientific methods of farming and mechanization for increased produce.

The following are the plantation farms in Uganda;

Sugarcane plantations like Lugazi in Buyikwe, Kinyara in Masindi, Kakira in Jinja and Sango bay in Rakai.

Tea estates such as Kasaku in Buyikwe, Igara and Kyamuhunga in Bushenyi, Nakigalala in Wakiso, Bugamba in Hoima, Mubende, Mpanga in Kabarole, etc.

Palm oil trees on Buvuma islands in Buvuma, Bugala and Ssesse islands in Kalangala.

Coffee plantation in Mubende on Kaweeri coffee plantation.

The following are the characteristics of plantation agriculture in Uganda are;

- The farms concentrate on the production of only one crop like sugar cane at Lugazi.
- The farms are very large usually extending to hundreds and thousands of hectares like Doho rice scheme covers 2500 acres of land.
- Crop production is usually for export / commercial purposes like most tea in Mukono and Kabarole
- Many workers, skilled, semi skilled and casual worker are employed like Lugazi sugar plantation in Mukono employs over 7000 people.
- A lot of capital is needed for the running of the plantations in preparing land, buying machines, transport facilities, setting up infrastructures, ... like irrigation sprinklers at Kakira sugarcane in Jinja.
- Many plantations are state owned and others are privately owned by foreigners like Kasaku tea estate in Mukono is owned by Metha.

- Many plantations increase their output by buying local produce especially from out-growers and local producers like local farmers in Kawolo and Mukono supplement Lugazi sugar farms.
- Plantations are scientifically managed and this involves the use of machines, agro-chemicals, fertilizers for quality output to meet the demand and standards like research is done to improve seed varieties at Lugazi sugarcane in Mukono and Kasaku tea plantation in Mukono.
- The plantation management provides housing, food and medical facilities and sometimes education to the workers like Lugazi and Kakira plantations operate these facilities to their workers in Mukono and Jinja respectively.

SKETCH MAP OF UGANDA SHOWING THE MAJOR CASH CROP GROWING AREAS.

FULL PAGE FOR A MAP

ANIMAL HUSBANDRY (LIVESTOCK FARMING) IN UGANDA

Livestock farming is the rearing of animals like cattle, goats, sheep, pigs, poultry, rabbits, bees, grasshoppers, fish and others on small and large scale for either home consumption or commercial purposes.

Current status of livestock farming in Uganda;

- Modern ways of rearing animals have been adopted like cross breeding, artificial insemination, cattle dipping, deworming and vaccination.
- 93% of livestock breeds are indigenous / traditional.
- Population of livestock according to UBOS 2008 census was estimated to 11.4 million.
- Milk production has increased year per year.
- Beef industry / processing is still not yet well developed.
- Western Uganda has the largest number of cattle herd.
- There is increasing rearing of exotic cattle mainly in Western Uganda.
- Pig rearing is on increase especially in Western and Central Uganda.
- Livestock exports are mainly in raw form and semi processed hides and skins.
- There is a rapidly growing export of live animals mainly cattle and goats to South Sudan.
- Exotic pasture has been introduced like alfalfa, exotic elephant grass, etc.
- Powdered milk is now being processed at Jesa in Wakiso and Bugolobi Fresh dairy in Kampala.
- There is still low milk consumption estimated at 50 litres per person per year as compared to the 200 litres per year recommended by the World health organization and FAO.

The livestock farming in Uganda is categorized as follows;

- Pastoralism is the major one and a traditional method of herding livestock and it carried out by the Karamajongs in Moroto, Kaabong, Kotido and Nakapiripit; Atesos in Soroti and Katakwi; Bahima and Balaalo in Mbarara, Isingiro, Rakai, Buliisa, and Nakasongola as well as Basongora in Kasese.
- Ranching is second category and the major ranches are Maruzi in Apac, Aswa ranch in Gulu, Kigumba ranch in Masindi, Singo ranch in Kiboga, Ankole- Masaka ranch in Mbarara, Afoyo ranch in West Nile, Nyabushozi in Kiruhura,
- Zero grazing practiced mainly in the mountainous areas like in Mbale and Bududa along the slopes of Mt. Elgon, Kasese along the slopes of Mt. Rwenzori and urban centres on small scale throughout the country like in Luwero, Soroti, Masindi, Hoima, ...

- Dairy farming is practiced at Beatrice farm in Kabale, Jesa farm in Wakiso, Rwakitura farm in Mbarara, Kisozi ranch in Gomba, Kazo dairy farm in Mbarara, Bugerere modern dairy farm in Kayunga, ...
- Piggery in Mpigi, Wakiso, Gulu, Soroti, Mukono, etc
- Poultry in Kampala, Wakiso, Mbale, Jinja, Hoima, Kasese, Mbarara, etc.

SKETCH MAP OF UGANDA SHOWING THE TYPES OF LIVESTOCK FARMING.

FULL PAGE FOR A MAP

NOMADIC PASTORALISM

This involves the movement of pastoralists with their herds of livestock from place to place in search of water and pasture.

The system is practiced by;

The Karamajongs in Kaabong, Moroto, Kotido and Nakapiripiriti;

The Atesos in Soroti, Katakwi and Amuria;

The Bahima in Ankole – Masaka corridor in Mbarara, Sembabule, Rukungiri and Kiruhura,

The Balaalo in Nakasongola, Apac, Kiboga and Buliisa;

The Basongora in Kasese, Bushenyi and Bundibugyo.

The characteristics of nomadic pastoralism are as follows;

- It is practiced in areas with little and unreliable rainfall ranging between 350 – 750 mm p.a. and very hot temperature over 30°C like
- Large numbers of livestock of low quality are kept because the cattle keepers prefer quantity to quality like
- The most valued animals kept are the cattle which provide food in form of meat, milk and blood and other animals are goats, sheep and camels like
- It is practiced in areas of low population density of less than 20 people per square kilometer such as Moroto, Kotido, Mbarara, Nakasongola, Kasese and Buliisa.
- Pastoralists move long distances in search for pasture and water like in Kibale, Kyenjojo, Mubende and others to look for water and pasture.
- The nomads have no permanent settlements and their seasonal movements depend on climatic conditions like
- Indigenous (local breeds) are kept such as Zebu which is short horned among and Ankole long horned cattle among, which all take long to mature and withstand the harsh climatic conditions.
- The livestock depend on natural conditions like natural pasture which are non-nutritious, coarse, thorny and bushy grasses of semi desert vegetation as well as natural water sources like
- The livestock are mainly kept for subsistence purposes like food supply, prestige and bride wealth.
- There is limited use of modern scientific methods of rearing livestock such as cross breeding, vaccination, artificial insemination, deworming and paddocking.
- Bush burning during the dry season is the common phenomenon as it ensures the growth of fresh pastures at the on-set of the wet season.
- Overgrazing is a common habit due to overstocking of animals and communal grazing like in
- Cattle raiding / rustling is their hobby from the neighbours like

- Pastoralists are war-like and hostile especially the Karamajong in
- Communal grazing of animals is practiced due to available land and communal ownership of the land.

AGRICULTURAL MODERNISATION

Agricultural modernization refers to the use of scientific methods of crop and animal husbandry such as agro - chemicals and machinery in an attempt to increase production and productivity.

In Uganda, agricultural modernization is undertaken in following areas:

There has been attempts to improve the quality and quantity of crops grown along Ongom citrus farm, Doho in Tororo, Kibimba in Bugiri and Olwenyi rice scheme in Lira, FIDUGA (Nsimbe farm) in Mpigi, Mubuku irrigation scheme in Kasese, Kakira in Jinja, Lugazi in Mukono and Kinyara sugar works in Masindi, Colonial coffee estates in Mukono and Wakiso, Masindi seed project, Kasaku, Mityana and Toro tea estates, etc.

Attempts have also been under taken to improve the quality and quantity of animals, especially cattle along the Ankole - Masaka ranching schemes in Mbarara, Batiima farm in Kabale, Njeru stock farm in Mukono, Jessa dairy farm in Mityana, Maruzi farm in Gulu, Nyabushozi ranch in Kiruhura, Kisozi ranch in Mpigi, etc.

Demonstration and research stations have been established with an aim of improving the quality and quantity of animals and crops like Kawanda research station in Wakiso, Namulonge research station in Wakiso, Mukono district farm institute, Serere research station in Soroti.

FACTORS LIMITING AGRICULTURAL MODERNIZATION IN UGANDA

The following are factors limiting agricultural modernization:

- The harsh climatic conditions of low rainfall amounts and seasonality as well as temperature variations are major factors in limiting agricultural production in Uganda. Unreliable and little rainfall received and hot temperature experienced in semi- arid areas of Kaabong, Nakasongola, Buliisa and Kiruhura have led to the growth of poor quality pasture and limited water for animals and crops thus affecting livestock rearing and crop cultivation.
- The nature of relief in hilly areas like Mt. Elgon in Mbale and Kapchorwa, Kigezi highlands in Kabale discourage mechanization hence low land productivity. Steep slopes have thin soils and are susceptible to erosion under the influence of gravity and running water e.g. soil erosion is a serious problem in Kigezi highlands.
- Wet lowland plains like Kiruruma swamp and valleys in Kigezi, Buganda, Nakasongola, Lumbuye and Naigombwa in Iganga and others have poorly drained soils, which make them unsuitable for agriculture. Such low lands and valleys are subjected to floods, which destroy crops, animals and discourage human settlement.
- High altitude areas such as mountains of Rwenzori, Mufumbiro and Elgon, temperatures are too cold for agricultural modernization. Many crops and cattle except the exotic breeds cannot flourish there. This limits average land which would be under agriculture.
- Pests and diseases have limited agricultural modernization e.g. the coffee wilt disease affects the production and quality of coffee, East-coast fever, Brucellus, foot and mouth disease affect cattle along the Kabale farm and the Ankole - Masaka ranching schemes, etc. Tsetsefly infestation in Bunyoro and Busoga limits human settlement and agricultural production as they cause sleeping sickness to man and Nagana to cattle. Periodic invasion of locusts and armyworms especially in the North and Eastern Uganda destroy crops and pastures.
- Poor nature of the soils have limited agricultural modernization e.g. in Buganda, the lateritic soils have been heavily leached and therefore hinder farming. In some parts of Northwest Uganda like Atiak, Eastern Kotido, there are Regosol soils and these are poorly developed soils from loose materials such as sand as well as Lithosol soils and these are shallow soils too stony for agriculture.
- Natural hazards like hailstorms in Ntungamo and Kayunga, prolonged drought in Kitgum and Katatwi and landslides in Mbale and Kabarole have limited agricultural modernization. In Northern Uganda, the unreliability of rainfall seriously affects cotton production in Gulu, Lira and Dokolo. Landslides in Kigezi and Mbale destroy crops and farmlands. In Karamoja, prolonged drought has led to scarcity of pastures for cattle leading to death and low quality thin cattle.
- The attitudes of people have in some ways limited agriculture modernization like in Buganda, Bugisu and Busoga, the

existing customs and traditions have promoted subsistence agriculture other than plantation agriculture as they prefer food production for their own consumption in Masaka, Mbale and Jinja and even among the Karamoja in Moroto and Teso in Soroti, the customs and traditions promote pastoralism and more emphasis is put on increasing quantity rather than quality of the livestock.

- The high costs of agricultural inputs as compared to the cheap human labour as farm inputs like fertilizers, herbicides, pesticides, spraying machines, tractors, modern storage facilities, and hybrids are very expensive and rare available which discourages the modernizing the agricultural activities in Mpigi, Nakasongola and Kaabong.
- Land tenure system has in many cases limited agriculture modernization like the Mailo land system in Mukono, Wakiso and Masaka has left some people landless while a few others have large pieces of land some of which is left unutilized which affects the size of farms and ease of transferability thus low output. Then in Kabale and Mbale, the inheritance system has led to land fragmentation that limits use of farm machinery and increases soil deterioration due to continuous use without fallow periods and is wasteful in terms of time spent between widely spread farm holdings. As well, the free and communal land ownership especially in pastoral areas like Kotido, Soroti, Moroto and Kaabong has led to irresponsible use of land, as farmers know that they can easily move to other places since land is free as they practice bush burning, overstocking which also offsets soil deterioration and affect land productivity hence low farm produce.
- Nature of crops has also limited agricultural modernization like perennial crops such as bananas, tea, coffee and others are more labour intensive technology orientated so the use of machines on coffee and banana farms in Masaka and Mbale is restricted which as well limits output.
- Low level of education and awareness on modernization technique is one of the most limiting factors to agricultural modernization like the Bahima in Kiruhura and Karamojongs in Kaabong are not well educated thus continuation of nomadic pastoralism as well as other natives in different parts of Uganda to practice shift cultivation and bush fallowing in Luwero and Soroti.
- Linkages between productive areas and market have limited agricultural modernization. Poor transport facilities limits market for rural agricultural products especially the highly perishable ones like milk from Kiruhura Kotido and Bullisa as well vegetable in Kabale end up spoilt due to poor road networks.
- The existing low level of technology has restricted agricultural output in many parts of Uganda like in Kigezi, Mbale, West Nile, Soroti and others as simple and traditional tools like hoes, pangas and slashes are used for agriculture. In some parts like along the shores of Lake Kyoga in Kumi and Soroti, cattle are used in ploughing land which all led to small scaled farm work.
- The high population density in Kabale, Mbale and Kibale and along the shores of L. Victoria in Mukono, Kampala and Jinja has limited expansion of agricultural activities as well led to landuse conflicts among farmers hence limiting agricultural modernization and production.
- The dispersal or scattered settlement patterns, which characterize most parts of Uganda like Rukungiri, Mbarara, Soroti, Bushenyi, Kaabong and Masindi have encouraged individual small farm holdings. Therefore, individual farmers work alone which inhibits the rapid spread of ideas, farming techniques, and frustrates government's efforts to provide agricultural assistance and advice.
- Political insecurities particularly in Gulu, Lira, Kitgum and Kasese disable farmers to concentrate on their farms. At times, bandits and rebels steal cattle and crops hence limiting agricultural modernization.
- Inadequate markets, low prices and delays in payments to farmers have limited production of crops like coffee, cotton, beans and dairy products. The fluctuating prices of agricultural products like vanilla in Mukono and Kayunga and coffee in Masaka and Mbale reduce the farmer's efforts and confidence in the system.
- Inadequate skilled labour to direct farm operations, maintain and operate farm machines. The biggest percentage of the available labourforce is semi-skilled and therefore of less productivity. Rural-urban migration of the young able-bodied youths has created scarcity of labour in rural areas of Mbale, Mbarara, Rukungiri, Kabale, Bushenyi, and others thus low production.
- International events pose limitations to agricultural modernization e.g. international prices of major export crops like coffee, cotton and tea are usually low and subjected to sudden fluctuations. Specific quantities quotas to be exported on the world market are set and therefore Uganda cannot produce and export more than that which has discouraged the expansion of agricultural activities.
- There is inadequate research facilities to control diseases and introduce high yielding exotic breeds, and hybrid seeds through genetic engineering. There are few research centers in the country and these include Kawanda research station, Namulonge research institute, Mukono district demonstration farms, etc which has therefore promoted over dependence on the indigenous low quality seeds and animal breeds like the Ankole long horn in Mbarara and Karamojong Zebu cattle in Moroto characterized by low

productivity.

- Embezzlement / corruption / mismanagement of agricultural funds, pesticides, farm implements, drugs and other facilities by government officials in the ministry of agriculture especially NAADS and OWC has denied farmers the opportunity to undertake agricultural modernization.
- The use of poor methods of farming are also responsible for low modernization as up and down ploughing, overgrazing, monoculture, bush burning and overcropping promote deforestation and soil erosion as well as soil exhaustion which led to low farm output in areas of Kabale, Kaabong, Masaka, Nakasongola and Mukono.
- The limited capital is also responsible for low agricultural output as it encourages the use of primitive tools like hands, sticks, hoes, pangas and ox-ploughs which finally leads to little farm work thus low crop and animal production in the areas of Moroto, Mpigi, Kiruhura and Soroti.
- The inadequacy in storage facilities is also responsible for low agricultural output as there is a lot of farm output wastage during the bumper harvests due to limited farm level stores, cold stores, modern abattoirs and holding grounds thus low crop, meat and milk production in the areas of Masaka, Luwero and Mbarara.

SOLUTIONS TO THE AGRICULTURAL PROBLEMS IN UGANDA

The following are the steps being taken to improve the agricultural sector;

- The Ministry of agriculture under NARO, OWC and NAADS is embarking on increased agricultural education through seminars and workshops as well as the development of demonstration farms such as Aswa ranch in Kitgum and Ankole - Masaka ranch.
- The government is backing an Agricultural credit facility (ACF) with Shs 90 billion as per 2010/11 Financial year to be accessed by farmers at an interest rate of 12% per annum from the participating commercial banks.
- The Ministry of defence is improving security in Soroti, Katakwi, and Kasese through the UPDF, Arrow boys and the local defense forces. In the north LRA rebels were driven out to southern Sudan by the UPDF in 2006.
- Mechanization of agriculture for great output is done at Kasaku in Mukono, Mityana, and Toro tea estates; Kinyara, Lugazi and Kakira Sugar cane estates.
- Ugandan government is liberalising the economy and attracting the foreign investors for adoption and encouragement of the large scale agriculture and production for commercial basis. For example BIDCO oil palm foreign farmers on Bugala Islands of L. Victoria, Madhvani group in Jinja, Metha group in Lugazi, Mukwano sun flower and cotton farmers in Lira and Masindi and Rosebud flower farmers in Entebbe have been attracted.
- The ministry of agriculture is embarking on agricultural diversification through the introduction of non - traditional crops like Vanilla is now grown in Mukono and Kayunga, flowers at Entebbe by Victoria flowers, Waggagi and Rosebud as well as Pearl flowers in Ntungamo, Moringa in Wakiso and Colonial coffee as away to control price fluctuations and reduce competition on the world market.
- Cooperative / group farming is being encouraged like through the "send a cow" programme in Kampala. High quality livestock are given to local groups emphasizing the increase of quality and quantity in Kayunga, Mukono, Wakiso, Mbarara and Kiruhura through NAADS / OWC.
- The Ministry of agriculture is providing incentives to farmers like seedlings of upland rice in Kakiri in Wakiso district, Cassava planting stems in Teso, Tea seedling in Lugazi and Toro for increased productivity.
- The Ministry of Agriculture is introducing fish farming of Tilapia and catfish at Kajjansi, Kiboga, Nakasongola, Mbale, Pallisa, Rukungiri, Lugazi, and Entebbe to boost crop and animal farming as an alternative.
- The Ministry of Agriculture is intensifying research through NARO (National Agricultural research organization), OWC (Operation Wealth Creation) and NAADS (National Agricultural Advisory services) so as to improve on both crop varieties and livestock breeds as well as marketing in Mukono, Ntenjeru, Mbarara, Mbale, Mpigi and Kalangala.
- Modern storage facilities like milk dairy factories for cooling and processing such as Alpha in Mbarara, Jesa in Mityana and GBK in Mbarara are being adopted. Milk cooling containers are being imported and used in all major towns like Kampala, Mbarara, Soroti, Nakasongola, Wakiso and Masaka to preserve.
- Soil erosion and fertility control measures are being adopted in Kigezi, Mbale and Bundibugyo where terracing, mulching and crop rotation are encouraged. Both artificial and organic manure like cow dung are being applied to reinstate soil fertility in Mbarara, Mbale, Masaka and Wakiso.
- Spraying and use of pesticides to control pests like ticks is being done in Ankole - Masaka, Nakasongola, Buliisa, Karamoja and Teso. Cattle are being also dipped in specially treated water to kill pests in the pastoral corridor.

- There is establishment of agricultural processing industries / agrobased industries to provide the market for farm yields and to reduce on post-harvest farm losses like alpha dairies for milk in Mbarara, Kyagalanyi coffee plant in Wakiso for coffee, etc.
- There is importation of hybrid seeds and animal varieties from outside countries to improve the quality produced like fresian, jersey, and exotic goats from South Africa to Jesa farm in Wakiso and Beatrice farm in Kabale, flowers from Holland to Nsimbe farm in Mpigi.
- There is rehabilitation of the existing and upgrading the feeder transport systems from and to the potentially rich farming areas so as to ease the distribution and marketing of the farm inputs and out puts as well as the movement of extension workers like cocoa growing areas in Bundibugyo, vegetable growing areas in Kabale, etc.
- There is introduction of irrigation farming in drier areas to ensure increased land productivity and intensive farming like Mubuku irrigation scheme for rice and maize in Kasese.

FAMINE

Famine refers to an acute shortage of food. It is a situation, which arises when the available food resources are no longer satisfying the available population food requirements.

Famine results into starvation, mal and undernourishment, and drastic fall in the living standards, mass exodus of people diseases and even death.

Famine disasters have occurred from time to time over years.

In Uganda, areas that are affected by famine are Karamoja region in districts of Kaabong, Moroto, Kotido and Nakapiripirit; Ankole – Masaka corridor in Mbarara, Isingiro, Kiruhura and Sembabule; L. Albert flatlands in Buliisa, Kagadi, Ntoroko and Semliki; some parts of Kasese, Nakasongola, Katakwi and Kitgum; and others that suffer from natural disasters like landslides, hailstorms, diseases, floods, drought and pests.

SKETCH MAP OF UGANDA SHOWING THE AREAS AFFECTED BY FAMINE

FULL PAGE FOR A MAP

CAUSES OF FAMINE IN UGANDA

Famine results from many factors that are categorized into two namely; physical factors and other factors;

Physical factors leading to famine:

1. Climate leads to famine in several ways:

a) **Drought (la Nina)** refers to an abnormal shortage of water below the usual requirements for food production. This drought kills off livestock and destroys crops hence causing food shortages and famine. In most parts of Uganda in the early 1980s, many people were left starving because of food shortages and famine.

b) **Floods** result from heavy torrential rains (El-Nino) leading to the destruction of crops and livestock. In 1997 – 1998, floods left many people having less crop yields and live stock dead in districts on shores of L. Victoria like in Kayunga, Mukono and Bugiri while that of 2007 affected the same in Teso lands in Soroti, Kumi and Katakwi leading to famine in those areas.

c) **Little rainfall and its unreliability** are a major climatic limitation to food production. This is particularly the case in Kaabong, Kotido and Nakasongola where most of the land surface is classified as semi arid conditions which lead to late planting and crops failures after planting hence food shortages and famine.

2. The nature of soils especially the sandy and infertile of about 30% of Uganda's total land area are of low productivity which support the growth of thin or no vegetation to cover the land against the agents of erosion. So, as a result

such areas with those soils like Rakai, Nakasongola and Kaabong are environmentally degraded and they therefore support less and less crops and yet the population demands hence food shortage and famine are the results.

3 Clearance of forests in most parts of the Uganda such as Luwero, Mpigi and Nakasongola as the main source of energy in form of wood fuel, has resulted into their depletion, reduced rainfall and desertification thus leading to less crop yields and food scarcity.

4 The Ozone Layer has been destroyed, unfortunately reducing in thickness due to the pollution of the atmosphere by industries, factories, homes, car exhaust fume and air crafts. The environmental impact of the reduction in the ozone layer has increased evaporation rates, increased drought and desertification thus seriously affecting food production and leading to food shortages.

5 Insects, pests and diseases limit food production in several ways:-

a) Swollen shoot disease in cocoa, cassava mosaic in cassava, rust disease in rice and stalk borer in maize are examples of destructive diseases to food in Uganda especially in Mpigi, Kayunga and Masindi.

b) Pests such as locusts and armyworms destroy crops in the field. Locusts are particularly common in Yumbe, Adjumani and Moyo while armyworms are common in Kaabong, Kitgum and Kotido.

c) Furthermore, tsetse flies cause sleeping sickness in humans and nagana in livestock and therefore discouraging settlement for crop cultivation like in Buvuma islands, Mayuge and Masindi.

6 Relief (nature of the landscape) and altitude limit crop production in several ways:-

a) High altitude areas like on the slopes of Mt. Rwenzori in Kabarole and Kasese limit crop production due to both cold temperatures and thin soils,

b) Steep slopes as in Kapachorwa, Bududa and Bukwa on the Mt. Elgon limit agricultural mechanisation thus limit crop yields in large quantities.

c) Low lands such as Walugogo in Iganga, Lwera in Masaka and Ruizi in Mbarara are mainly occupied by swamps and therefore have poorly clay drained soils, which make them unsuitable for food crop production.

7. Population Pressure particularly in Kisoro and Kabale of Kigezi region and Mbale and Bududa of Gishu region has resulted into shortage of land for farming and even more land for food production has been reclaimed from swamps, yet they deteriorate after a few years of use and support less and fewer crops yields mainly yams thus food shortage.

Other factors causing famine

1 Political and prolonged wars as in Kitgum, Pader, Lira and Gulu of Northern Uganda has resulted into less or no crop cultivation as people are ever on the move to escape the war. In Uganda, wars have had a very devastating effect on growing of food crops and rearing of livestock between 1981 – 1986 in Luwero triangle by NRA and 1986 – 2006 in Northern Uganda by LRA hence famine.

2 Land Tenure System in Uganda like in Buganda of central, Kigezi of S.W, Bugishu and Tesoland of eastern are many and some of them discourage crop production in the following ways:-

a) The **communal land ownership system** like Soroti, Moroto and Amuria has denied one exclusive rights over the piece of land he/she uses which has not only resulted into irresponsible use of land but also discouraged any initiative to introduce the use of modern farming techniques such as use of machines, application of fertilizers and manure which are imperative for a higher crop output per unit area.

b) The **mailo system** in the Buganda region of central Uganda has left some people landless whereas other few individuals mainly the local chiefs have a lot of land most of which is left unutilized thus discouraging crop production leading to food shortage.

c) The **inheritance system** in Ibanda, Kisoro and Kabale of Kigezi has led to land fragmentation as land is divided up amongst all the sons after the father's death which has made the size of individual land holdings therefore small and increasingly diminishing in size for food output because they limit the economic use of farm machinery.

3. In most parts of Uganda, **storage facilities** are largely inadequate. During bumper harvests especially the grains / cereals like Millet in Masindi and Kasese, Maize in Pallisa, Kumi and

Mayuge, there is a lot of wastage of food because most of it is not adequately stored thus leading to shortage of food in times of natural disasters such as drought.

4 Marketing facilities and arrangements for most food crops in Uganda are inadequate, poor and are not yet fully developed whereby transportation of food crops from areas of surplus like maize in Mubende and Milk in Mbarara to areas of deficit like Kaabong and Abim are impossible which therefore leads to famine in those areas of deficit.

5 Poor state of transport routes has led to market inaccessibility which has greatly affected the increased production of particular crops especially those that are perishable such as vegetables and fruits in Kabale and Kabarole and crops such as bananas in Bushenyi, Masaka and Mbale. And even production is made low as the surplus output is not easily marketed.

6 Emphasis on production of cash and export Crops such as coffee in Mbale and Masaka, cotton in Lira and Gulu, tea in Kabarole and Mubende and tobacco in Nebbi and Arua by the British colonial agricultural policies gave undue prominence in Uganda at the expense of food crop production which consequently made plenty of land to be devoted to the cultivation of cash crop leaving very little land for cultivation of food crops thus food shortages.

7. In Uganda, the nature of agricultural production is on a subsistence basis like in Mpigi among the cassava farmers, Soroti among the millet and ground nut growers and Lira among the sorghum farmers under shifting cultivation and bush fallowing where production is mainly for home consumption and little if any is sold which has limited food production resulting in food shortages and famine.

8 Low levels of technology limit large scale food production. In Uganda, areas prone to drought such as Nakasongola, Kaabong and Katakwi and others have failed to apply the advance technology to eliminate water shortages by either cloud seeding, rain making or sprinkling irrigation to increase food production thus famine. And even such technology in Uganda is limit

9 Many Ugandan towns such as Mbarara, Mbale, Fort Portal, Kampala, Jinja and others are growing rapidly due to **rural urban migration** which has made the young able-bodied people to seek better paying jobs and excitement in the towns leaving crop production to the old flock who are less effective hence low food production in villages of those town districts.

10 Capital or finance for the purchase of machinery, fertilizers, improved seed varieties, setting up irrigation schemes and other farm items is inadequate in Uganda as most farmers rely on Credit institutions such as commercial banks like CERUDEB and co-operatives like SACCO's to fund their operations, yet they lack security attached to required loans which prevents them from rescuing them and this therefore limits farming resulting into low yields and food shortages for the growing population.

11. National food policy by Ministry Of Agriculture has failed to meet the country's ever increasing demand for food caused by rapid population growth which adds on 1 million every year as the food programmes which are drawn up, are never implemented fully especially during the periods of crop failure like in Sembabule, Katakwi and Nakasongola thus making the problem of food shortage recurrent.

12 Limited research to develop high yielding food varieties because of inadequate capital and shortage of skilled manpower in many districts of Uganda like Rakai, Buliisa, Kaabong and Amuria has led to food shortages as the farmers depend on use of natural varieties, which are slow growing, prone to pests and diseases, and yields low out put.

13. Low levels of education among the peasant farmers in Soroti, Nakapiripirit and Nakasongola have made it difficult for them to adopt modern farming techniques like irrigation, ranching and soil conservation measures even with the assistance of extension workers spearheaded by NAADS thus low food production leading to famine.

SOLUTIONS TO THE FOOD CRISIS IN UGANDA

1The Ministry of Agriculture through NAADS in conjunction with the Office of the Prime Ministry has set up a **national food policy** aimed at encouraging and increasing the domestic food production at all times including periods of crops failure to meet adequately the ever-rising demand caused by the rapid

population. Furthermore, the office of the former Vice President headed Prof. Gilbert Bukenya encouraged the growing upland rice in Mpigi, Masaka, Kalangala and Wakiso.

2. Intensified and increased **research** in traditional food crops has been conducted which is aimed at developing high yielding disease resistant varieties on research institutions. For example maize and cassava as important staple foods in Kasese, Masindi and Soroti have hybrid seed varieties from Kawanda in Wakiso and Serere in Soroti. In addition to the above, increased research on pests and diseases control has been carried out by NARO in Entebbe especially against cassava mosaic, banana wilt and seasonal caterpillars and locusts.

3. Improved **farmer education** and extension services have been made which are serviced by Ministry of Agriculture and offered by NAAD / OWC officers and assistants who move from one place to another like Masaka, Mbale, Moroto and Kumi, advising farmers on modern and improved methods of crops cultivation. In addition to the above, farmer's Training Centers have been set up almost in every district of the country at sub county level.

4. **Irrigation schemes**, both on small and large scale such as Mubuku rice in Kasese, Owenyi rice in Lira and Kibimbi rice in Bugiri, have been established to reduce the effect of prolonged drought and food shortages and to enable the cultivation of crops all the year round.

5. **Agricultural Services and farm inputs** have been availed, accessed and provided to the farmers easier by NAADS / OWC freely and by private companies on subsided costs like Quality chemicals Ltd at Katwe in Kampala and BMK enterprises in Kampala with sprays, improved seeds, ploughs, fertilizers, insecticides, tractors and carts.

6. **Land Consolidation**, which is a solution to the traditional practice of land fragmentation has been encourage to the farmers through cooperatives to promote commercial farming like among the Bakiga in Kisoro and Kabale and Bagisu in Mbale and Bududa which has then resulted into easier mechanisation, increased output and more food stocks on a single piece of land by a single farmer.

7. Today, the Ugandan government has realised the need to increase **food crop production against production of cash crops** in those affected areas like in Masindi and Mubende, maize production is emphasized at the expense of sugarcane growing at Kinyara, tea growing respectively while in Mukono, Kayunga, Jinja and Buyikwe, the same is done.

8. The Ministry of Agriculture together with the office of the Prime Minister has continuously encouraged the farmers to properly store the food especially the cereals and drying cassava and matooke during bumper harvest in raised stores against weevils, rats and other pests. This calls for to be erected. In Jinja, large **proper storage facilities** have been erected capable of storing large quantities of grains safely.

9. The Ministry of transport and works through UNRA and Local government in every district has improved and rehabilitated **the transport network** especially the truck roads connecting to the feeder roads in the rural areas such that production of food crops and their marketing is made easy such as Lira – Dokolo – Soroti – Kumi – Mbale – Tororo road.

10. The Ministry of defense and that of security has improved **security and restored political stability** in the war-torn and insecure areas like in Gulu, Pader, Soroti, Katakwi, and Kasese through use of the UPDF, Arrow boys, the local defense forces and the help of peace talks. For example in the north, LRA rebels were driven out to southern Sudan by the UPDF in 2006.

11. The government through the Ministry of finance and non government organizations through micro - finance institutions like FINCA, FOCUS, CERUDEB, Send a cow, Heifer international and SACCO in Sembubule, Mpigi, Kasese, Pallisa, Kayunga, Soroti, etc have extended **credit facilities** to farmers at an interest rate which reasonable to produce adequate food.

12. Rich nations like North America and Europe have on many occasions come to the aid of the poor nations including Uganda in terms of **food aid**. For example northern and north eastern Uganda in Abim, Pader, Kitgum, Moroto, Kaabong and Nakapiripirit have been always aided with corn flour and beans by WFP and Red Cross.

13. The government through Ministry of Agriculture has improved the **marketing arrangements** of crops grown by subsistence farmers in Iganga, Mubende, Hoima and Soroti through the constructing and upgrading of rural access roads, constant price reviews of major food crops like beans, maize,

millet and G.nuts and the establishment of farmer Cooperatives (SACCO groups) amongst subsistence farmers.

Sample questions:

1. Assess the relative importance of coffee production in the economic development of the regions.
2. To what extent has climate / soil types influenced agricultural practices / systems in Uganda?
3. Discuss the problems facing the agricultural sector in Uganda.
4. Suggest ways in which the agricultural sector's problems in Uganda can be overcome.
5. Discuss the role played by Nomadic pastoralism in the rural economy of where it is practiced in Uganda.
6. (a) Account for the success / expansion or increased dairy production in Uganda since 1990.
(b) Describe the challenges / problems or limitations faced by the dairy sector in Uganda.
- 7.(a) Account for the low level of development of the livestock sector in Uganda.
b) Explain the steps being taken to improve the livestock sector.
8. To what extent have rainfall totals influenced the farming practices in Uganda?
9. a) Examine the problems faced by the agricultural sector in Uganda
b) Outline the steps being taken to improve the agricultural sector in Uganda.
10. To what extent are poor farming methods responsible for the low level of agricultural productivity in Uganda?
11. Examine the factors limiting agricultural modernization in Uganda
12. Assess the economic value of plantation farming in Uganda.
13. (a) With reference to specific areas in Uganda; i) Discuss the causes of land fragmentation
ii) Examine the effects of land fragmentation
(b) Suggest solutions to the problem of land fragmentation
14. Assess the role of agriculture to the economic development of Uganda
15. "Shortage of water is a major challenge to the pastoralists" Discuss.
16. Account for persistence of nomadic pastoralism in Uganda
17. a) Account for the decline in cotton production in Uganda
b) Discuss the measures being taken to promote cotton growing in Uganda
18. To what extent are the problems of pastoralists of their own making in Uganda?
19. Giving specific examples, discuss the causes of famine in some parts of Uganda.
20. "Just as little rainfall is not the single and direct cause of drought, drought is not the single and direct cause of famine" (A. Wijkman and L. Timberlake). To what extent is the above statement a true reflection of the conditions in the famine affected areas in Uganda?
21. With reference to specific examples, examine the extent to which the physical factors are responsible for the problem of famine in Uganda.

POPULATION DISTRIBUTION IN UGANDA

Population refers to the number of people living in a particular area at a given period of time.

While population distribution is the wide spread of people over an area and population density is the number of people per square kilometre.

The following is the Ugandan population trend / status over decades and years past;

In 1948 census, the population was 4.9 million people at 2.0% growth rate.

In 1959 census, the population was 6.4 million people at 2.5%.

In 1969 census, the population was 9.5 million people at 3.9%.

In 1980 census, it was 12.6 million people at 2.7%.

In 1991 census, it was 16.7 million with females outnumbering males at 2.5%.

In 2002 census, it was 24.2 million at 3.2%.

In 2014 census, it was 34.6 million at 3.0%.

In 2021 projection, it has been estimated to be 47.7 million at 3.32%.

Population growth rate was 2.5 % in 1991 census and it rose to 3.2 % in 2002 census, and then it declined to 3.0% in 2014.

Generally, population has been increasing at inter - censal growth rate of between 0.2% and 0.5%.

Ugandan population added 10.4 million people in 2014 from 2002 with an annual population growth rate of 3.0%.

The trend / status of the population density of Uganda over time are as follows;

In 1959, it was 33 persons per sq km

In 1969, it was 48 persons per sq km.

In 1980, it was 64 persons per sq km.

In 1991, it was 85 persons per sq km.

In 2002, it was 124 persons per sq km.

In 2014, it was 173 persons per sq km.

The population distribution / density in Uganda vary per region and are as follows;

Densely populated districts are Kampala, Jinja, Kabale, Mpigi, Tororo, Kabale, Kisoro, Mbale, Entebbe, Kayunga, Nebbi, Manafwa, Butaleja, Bududa, Isingiro, Kiruhura, Wakiso, Ntungamo, Iganga, Kamuli, Budadiri, Bundibugyo, Bagisu, Bunghoko, Manjiya, Rubanda, Kisoro and others with high population densities of over 150 persons per a square kilometer.

Moderately populated are Kasese, Bugiri, Bushenyi, Kibale, Hoima, Masindi, Gulu, Lira, Masaka, Bugiri, Mukono, Soroti, etc with medium population densities between 149 - 50 persons per a square kilometer.

Sparsely populated are Kitgum, Pader, Katakwi, Nakapiripirit, Moyo, the pastoral corridors of Ankole – Masaka in Sembabule, Buliisa, Nakasongola and Karamoja in Kaabong, Moroto and Kotido; (the Ankole - L. Kyoga area), and areas with national parks, game reserves, wetlands, steep slopes and forest reserves, etc with low population densities of less 49 persons per a square kilometer.

SKETCH MAP OF UGANDA SHOWING POPULATION DISTRIBUTION

FULL PAGE FOR A MAP

SKETCH MAP OF UGANDA SHOWING POPULATION DENSITY.

FULL PAGE FOR A MAP

FACTORS RESPONSIBLE FOR THE POPULATION DISTRIBUTION / DENSITY IN UGANDA

The following are the factors that have influenced the population distribution in Uganda either positively or negatively which are environmental and non-environmental:

Physical factors:

1. Climate is a major factor influencing the population concentration in an area especially in terms of rainfall and temperature whereby areas like the shores of L. Victoria, Bugisu, Kabale and Rwenzori highlands which receive heavy rainfall of over 1500 mm per year and experiencing hot temperatures of about 25° C – 27° C have attracted high human settlement because that climate supports the growth of various crops like bananas, coffee, vegetables, etc.

On the other hand, areas like Gulu, Apac, Lira, Kiboga, Mubende, Masindi, Luweero, Mpigi, etc which receive moderate rainfall ranging between 750 – 1500 mm per year such as Gulu, Masindi, Lira, Soroti, etc and those receiving unreliable rainfall of less than 750mm per year such as Karamoja region, Ankole – Masaka corridor, Nakasongola and Buliisa support medium population because they support growing of seasonal and cereal crops like beans, maize, sorghum, sweet potatoes, cassava, etc and low population densities because they do support the growing of cereal crops and pastoralism respectively.

2. Soils influence the population distribution through their productivity where by areas with rich and fertile soils especially of volcanic origin and loam alluvial type like Kigezi, Gishu and shores of L. Victoria areas have attracted high population since these soils support cultivation of various crops because a lot of food is grown to support that increased population.

On the other hand, areas with poor quality fertile soils and acidic soils support moderate and low population e.g. the upper slopes of Mt. Rwenzori and Elgon have thin stony soils, valley swamps have clay acidic soils like the shores of Lake Kyoga, Kitgum and Kotido in Northern Uganda have the ferralsol soils and sand in nature which have attracted low population because such soils cannot support a variety of crops.

3. Relief of an area also accounts for the population distribution in Uganda where by areas with steep slopes like the Butiaba and Kichwamba escarpments in the western rift valley, Kapchorwa and others areas with rough, rugged and hilly surfaces like the upper slopes of mountains of Rwenzori, Elgon and Muhavura attracted low or Nile population because of the unfavourable conditions for human settlement like difficulty in constructions, high soil erosion tenderness, landslides, etc.

While low lying areas like the Semliki areas, Lake Albert flats and the Nile valley areas hinder settlement because they tend to flood during the rainy seasons as well as experiencing high temperatures.

On the other hand, highlands' or mountains' foot hills of Elgon and Kigezi as well as Nakasero hill, Wakiso hills and other Buganda hills have attracted dense population especially on the gently sloping areas because they receive heavy relief rainfall, have fertile volcanic soils and undulating landscape which are good for human settlement.

4. Altitude influences the population distribution in different ways as the temperatures lower as one moves higher on high altitudes above 3,000 meters above sea level like on Mt. Rwenzori, Muhavura and Elgon, the settlement also lowers because too much coldness, less oxygen and dense dew (dampness) scares away man. Further more as temperatures also tend to increase as the altitude lowers like in the western rift valley region the settlement decreases which too scares away population but on the other hand mildly, moderate and health temperatures on lower slopes of mountains and gentle areas with enough oxygen e.g. Kigezi highlands, Kampala and Mbale have attracted high population densities.

5. Drainage affects population where by wetlands or swampy areas attracted sparse or limited population because they are occupied by water, papyrus, subjected to flooding, breeding places for such mosquitoes and tsetse flies and barrier to communication lines such as immediate the shores of L. Kyoga and L. Victoria basin.

Further more, the wetlands are water logged giving rise to acidic clay and sandy soils which are unsuitable for agriculture thus low population density.

On the other hand, well drained areas like the Buganda gentle hills in Kampala, Mukono, Entebbe, etc have dense population because they favor easy infrastructural construction and agriculture.

6. Vegetation affect population where by thick vegetation like forested and swampy areas have low population densities because they are homes of dangerous pests like mosquitoes which transmits and wild animals like lions, monkeys and hyenas which scare away population, and others have been gazetted as forest reserves and National parks e.g. Mabira, Budongo, Bugoma, Maramagambo, Kabale forests reserves and Bwindi impenetrable forests which means that people are not supposed to settle there.

On the other hand, areas in Buganda like Kampala, Mukono, Masaka and Entebbe; in Busoga like Iganga and Jinja etc with less and thin vegetation of savanna type have dense population because they do not habitat dangerous vermines and are easy to clear by man for economic development.

7. Biotic factor is also responsible for the population distributions where by presence of pests, insects and others such as tsetse flies, mosquitoes, ticks and their associated diseases have been unattractive to human settlement in Masindi, Gulu, Moyo and along the shores of L. Victoria and Kyoga, South Busoga, between Karamoja and Teso as they do affect human life, crops and animal husbandry thus turning them to be areas of low population densities.

Whilst areas in Buganda like Kampala, Mukono, Masaka and Entebbe; in Bugishu like Mbale; Kigezi like Kabale and Kisoro with less incidents of pests and diseases have dense population because of the conducive atmosphere for human settlement and animal and crop husbandry.

Other factors:

1. Industrialization influences population where by major towns e.g. Kampala, Jinja, Mbarara, Tororo and Mbale are highly industrialized with industries dealing in soft drinks like century bottlers, brewing like Nile breweries, plastics like Nice and Mukwano, vegetable cooking oil like BIDCO, paper like Picface, soap like Yeyo, paints like Peacock, mattresses like Vita foam, etc have attracted job seekers to make these areas highly populated.

On other hand towns like Kaabong, Kitgum, Masindi and Moyo which lack manufacturing industries have low population density because they are not attractive for human settlement.

2. Mining influences population where by areas with mineral deposits have attracted high population e.g. the existence of cobalt, salt and copper in Kasese; lime stone and phosphates in Tororo and Limestone in Hima have attracted high population concentrations.

Whilst areas like Karamajong, Kitgum, Masindi and Moyo with less or on minerals have attracted low population density.

3. Plantations / Estates influences population where by large plantations or estates for agricultural purposes have attracted large populations such as Kakira in Jinja and Lugazi in Mukono for sugar canes and tea plantation in Kabalore, Mityana and Mukono (Kasaku) have high population in terms of job seekers and out growers around them.

On the contrary, areas like Kotido, Kitgum, Masindi, Moroto and Moyo without major agricultural lands have attracted less people to settle in them.

4. Urbanisation influences population where by urban centres such as Jinja, Gulu, Mbale, Kampala, Kasese, Kabale, Mbarara, etc have attracted high population concentration despite of favourable and unfavourable climatic conditions because of presence of social services like education, good transport services, medical care, power, water, etc which are ideal essential for living e.g. most of the schools and hospitals in Uganda were first established in Buganda, then Busoga, Bugishu and Kabale.

On the contrary areas with less social services and essentials for human survival like Kotido and Ankole-Masaka corridor have limited settlement thus sparse population.

5. Transport and Communication influences population where by the presence of major transport and communication networks in certain areas of Uganda like in Kampala, Jinja, Mbale, Tororo and Mbarara have attracted high population especially the roads and the railways in terms of lineal settlement due to the desire for easy accessibility. For example people have settled in large numbers along Kampala - Jinja road from Nakawa, Banda, Kireka, Bweyogerere, Sseeta up to Mukono because it enhance human mobility, trade and commerce.

Whilst remoteness and inaccessibility in some districts like Kaabong, Moroto and Kotido has turned these regions to be of low populations because they are not attractive to human settlement due to lack of developed transport and communication network.

6. Market potentiality influences population where by areas with market potentials have attracted and accounted for high population distribution in Uganda because people mainly like to settle near market centres where they can easily buy what they want and sell what they produce e.g. Kalerwe market, Nakawa market, Owino (St Balikuddembe) market and Nakasero market in Kampala and being near Wakiso, Mpigi and Entebbe have attracted people to settle in them.

On other hand regions with less market potentials like Karamoja have attracted less people because people are not motivated to carry out any activity without market for the produce.

7. Cultural Factor influences population where by the pastoral economy of cattle keeping demands large areas for grazing the animals which means that such areas have low population concentrations because of the need of the vast / very big piece of land e.g. the Bahima of Ankole and Karamojong of North Eastern Uganda are sparsely populated.

On the contrary some tribes like the Bakiga, Basoga and Baganda have had a history of high population densities and they still exist, so those areas like in Kabale, Iganga, Mbale, Kampala, Wakiso and Masaka districts have ended up being high populated.

8. No Man's Land influences population where by in the past, Uganda had strips of land left unoccupied known as no man's land between the conflicting tribes. This existed between tribal wars among the Teso and the Karamojongs in Katawi, Baganda and Banyoro in Kibaale and Kiboga, Banyori and Japadhola which situation left such areas with low population unlike of the recent few settlements. Whilst ancient kingdoms such as Buganda in Wakiso and Kampala, Busoga in Jinja are densely populated because of security and cultural reasons.

9. Tribal Location influences population where by the headquarters or seats of the traditional leaders e.g. chiefs, kings and clan leaders became highly populated because people liked to settle near their leaders e.g. Mengo in Buganda, Mbale in Bugishu, Jinja in, Fort portal in Tororo, Hoima in Bunyoro and Mbarara in Ankole. While those areas far away the traditional seats like Kayunga and Rakai in Buganda, Kamuli in Busoga, Masindi in Bunyoro and Ntungamo in Ankole called for low or moderate population because nothing was a centre of attraction traditionally.

10. Security influences population where by Gulu and Lira districts as well as its neighbors in northern Uganda, their population densities were decreasing continuously because of the political instabilities caused by the LRA rebels led Kony between 1986 and 2006. Similarly insecurity caused by the Karamoja has led to low population in a certain zones between them and the Iteso land as people run away from the battling grounds.

On the other hand areas which are politically stable such as Mbale, Kabale, Masaka, Mbarara and Kampala have high population densities because people have chances to carryout their activities freely like farming, trade, commerce and other forms of investments without fear of losing anything.

11. Government policy through its policies has influenced the population distribution in Uganda in different ways as the government has gazetted certain areas as national parks, games reserves and forest reserves where settlement is strictly prohibited e.g. Kabalega National park, Kidepo, Queen Elizabeth, Semliki game reserve and forest reserve as well as Bwindi impenetrable forest, Kibale forests, etc, so such areas have no population.

While the government has also designed resettlement schemes so as to transfer people from densely populated areas to areas of low population e.g. many landless Bakiga were resettled in Kasese, Kibale, Hoima, Masindi and Apac, making those areas to have more population concentrations.

More also the government established irrigation schemes or plantations which attract settlements as workers on them such as Mubuku irrigation scheme in Kasese and Kibimba irrigation scheme in Bugiri while the other way the government scares away the population is by displacing them to establish there a firm or an industry like Namanve industrial area near Kampala.

12. Historical incidence influences population where by the slavery event which happened in 1800s in areas such as Western Uganda in Bunyoro, Northern Uganda in Acholi and Lango as well as Toro region led to relatively low population densities because they were depopulated by getting slaves from them. Whilst areas like Busoga, Bugishu and Buganda were not affected by slavery just because they were administrative centres and bases for Arab traders and missionaries thus the population remained not disrupted but to increase.

POPULATION GROWTH

Population growth is the natural increase in number of people or inhabitants in a given area in terms of increased birth rates, decreased death rates and increased migrations.

Areas of rapid population growth are as follows;

- Central region in the districts of Kampala, Wakiso, Mukono, Masaka, etc.
- Western region in the districts of Kasese, Kibale, etc.
- South western region in the districts of Kisoro, Kabale, Rukungiri, etc.
- Eastern region in the districts of Mbale, Soroti, Jinja, Tororo, Busia, etc.
- Northern region in the districts of Gulu, Lira, etc.

Characteristics of population growth in Uganda are as follows;

- Most population is concentrated in rural areas.
- Wakiso district is the most populous with 2m residents followed by Kampala (1.5m), and then Kibaale (0.78m) while Kalangala is least populous with 60,000 persons.
- Most population is concentrated by females with 17.5m while males are 17m.
- Most population is dominated by children (infants) aged below 15 years.
- People aged 65years and above are very few ranging between 6% - 10% of Uganda's population.
- Population is dominated by high dependency rate due to being non – productive population.
- Biggest population of the population is still illiterate.
- Population is unevenly distributed with dense, moderate and sparse.
- The dominant tribe of the population is the Baganda with 17%, followed by Banyankore (10%), Basoga (8.8%) and Bakiga (7.1%).
- Population is dominated by Christians having 80% of its total as Catholics and Anglicans share the biggest percentage.
- Most people have low income per capita due to low GDP.
- Total fertility rate per woman in her reproductive age is averaged at 5.8 children from 7.1 in 1991.
- Average life expectancy stands 63.3 years, an increase from 50.4 years in 2002.
- Infant mortality rate was estimated at 53 deaths per 1000 live births in 2014 from 87 in 2002.
- Under-five mortality rate was estimated at 80 deaths per 1000 live births in 2014 from 156 in 2002.

CAUSES OF HIGH POPULATION GROWTH IN UGANDA.

The following are the reasons why the Ugandan population is continuously increasing over years and years;

1. Increased Birth rate; The major cause of population growth in Uganda is the excessive natural increase in the number of births at a ratio of 50/1000 persons since 1969 due to better health care like supply of free ARV's to AIDS patients, and other services which has led to high population growth.

2. Reduced death rate; There has been a decline in the number of death from a ratio of 200/1000 persons to a ratio of 170/1000 persons.

3. Infant mortality rates; The high infant mortality rate in Uganda has also contributed to high population because some parents are not sure for the number of children who are likely to survive so they produce many children as possible to ensure that a reasonable number survives after others have died in rural areas like in Tororo, Iganga, Kamuli and others while in urban areas like Kampala, Mbale, Mbarara, Masaka and Mukono, there has been a decline in the infant mortality rate from a ratio of 88/1000 children in 2002 to a ratio of 76/1000 children in 2007 due to the introduction of immunization to mothers as well as infants and reinforced frequent antenatals.

4. High fertility rate; Fertility rate is the number of children born per woman. Population growth is mainly a function of fertility rate. The higher the fertility rate, the higher the rate of the population growth. In Uganda, there is a high fertility rate varying from district to district e.g. Western Uganda has the highest, followed by the Northern and Eastern regions but the central regions have the lowest fertility rate due to education, family planning,

urbanization, etc. And even nationally the fertility rate on average has increased from 5.9 /1000 children in 1969 to 7.2/1000 children in 2009 e.g. in Kigezi, Bugishu, Busoga, Tororo, Buganda and others.

5. Medical care; There has been continuous improvement in medical services in Uganda has reduced on the death rates due to improved immunization against the six killer diseases like Measles, tetanus, and polio; antenatal care; use of treated mosquito nets to control malaria; spraying DDT; distribution of free malaria drugs, ARV's and condoms; and other services has led to increased population in Kampala, Mbale, Kisoro, Mbarara, Jinja etc.

6. Sex ratio; According to the Uganda's population census 2014, it was indicated that the number of women outnumber that of men at approximate ratio of 17.5 millions:17 millions in areas of Kisoro, Kabale, Masaka, Mbarara, Kasese, Mbale, Busia and Kampala which assured high birth rates because all women married or not are interested in having children.

7. Values attached to children; In many parts of Uganda, parents have many children because of social and economic benefits they expect from them in return thus high demand for children causing rapid population growth for bride wealth, security and labour force e.g. in Buganda for assurance and prestige like Mr. Eriabu Ssempala of Kabuntu village, Najjembe sub county, Mukono district in 2009 had over 70 children with 21 wives, Ankole and Bugishu for bride wealth, in Kigezi for labour force on crop farms, etc.

8. Polygamy; In Uganda, it is estimated that about 40% of men have more than one wife which implies that they live in a polygamous marriage which ensures large families with many children like in Teso land, Kigezi land, etc. E.g. a renowned local musician Paul Kafeero of Mukono who died in 2007 had over 19 wives with 45 children at the age of 37 years.

9. Early marriages; Most women in Uganda especially girls at a percentage of 44% marry before the age of 18 - 22 resulting into producing many children since they have a long productive period, young and still fertile to bear many children like Bakiga girls in Kisoro and Kabale, Bahima girls in Bushenyi and Mbarara, Bagishu girls in Mbale and Manafwa, etc.

10. Education; High population growth rates have also been due to low levels of education among the people in rural areas of Kigezi, Mbale, Butaleja, Manafwa, Kibale and Bukedea where there is less education facilities and services making them to stay shorter period in schools, unable to take up modern employment and being ignorant of the disadvantages of large families and use of family planning methods thus high birth rates.

11. Level of income; In Uganda, the poor people have limited ambitious and with more free time so they produce much in their leisure time than working followed by the middle class because they have less future motives of investment as they are low income earners like people in Kisoro, Kabale, Kibale, Iganga, etc thus high birth rates.

12. Religious doctrines; In Uganda, religious beliefs have contributed to high population growth like Catholicism encourages the multiplication of the universe as God's command to man as opposed to all birth controls and abortion which increase the population growth in Kampala, Masaka, Iganga and Kabale while Islam encourages the marrying of four wives which ensures the production of many children like Kawempe and Kibuli in Kampala, Butambala in Mpigi.

13. Family planning facilities; In Uganda, the family planning programs have reached only the small portion of people in urban areas about 24% compared to those in the rural areas like in Kabale, Masaka, Luwero, Kisoro and Mbale who are 76% lacking the knowledge of the use of family planning methods especially which has left them in the wide space and chance of producing whenever they have sex.

14. Improved nutrition; Due to the availability of better quality food like milk, bananas and rice because of improvement in agriculture in Masaka, Mbarara, Mbale, Iganga and Wakiso has ensured better nutrition among Ugandan women which has increased their fertility rate hence high birth rate as well as rise in life expectancy from 38 years in 1969 to 50.4 years by 2007 among Ugandans.

15. Youthful population; In Uganda, out of the total population of about 30 million the young who are still active, fertile and reliable to produce many children, outnumber the rest of the population, the according to age, which has it possible to have rapid population.

16. Gender inequality; Some Ugandan societies like among the Itesots in Soroti and Kaberamaido, Bakiga in Kigezi and Bagishu in Mbale and Manafwa, Madi in Nebbi and in Sebei in Kapchorwa have high population growth

because women have little or no say about the size of the family and number of children to produce which has made them to be looked at as factories to manufacture babies.

17. Migration; Uganda has received for the past years many people in form of refugees in the districts of Kisoro, Kabale, Masaka, Gulu, Moyo, Arua, Mbarara, Kasese, Mbale, Busia and Kampala from its neighbouring countries of DRC, Rwanda, Kenya, Somali and Tanzania due to different reasons e.g. social, political and cultural wars in those countries, improved education in Uganda, business transaction, etc.

18. Urbanisation; In Uganda, population growth has also been caused by urbanization process because urbanized areas e.g. Jinja, Kampala, Tororo, Mbarara and Mbale have better medical services, educational services, employment opportunities in industries and other commercial businesses, power, water and accessibility to family planning which called for rapid population growth in those areas through RUM. And in rural areas of Mbale, Luwero, Masaka and Kabale, since most of the population in Uganda is rural based, therefore the traditional customs and beliefs that encourage high population growth are still strong thus increased birth rates.

19. Social factors; Some Ugandan societies like Bakiga and Banyakole do not have traditional taboos which prevent women to have sex while still breast feeding and immediately after birth which has opened them to higher chances of producing many children in their life time hence high population growth in those areas.

EFFECTS OF HIGH POPULATION GROWTH IN UGANDA

There is both positive and negative economic and social impact of high or rapid population growth rate in a given country and for Uganda's case these are:

Positive impact:

High population growth rate provides adequate skilled and semi-skilled labour for agriculture in rural areas like Kisoro, Mbale, Kasese and Nebbi and for industries in urban centres like Kampala, Jinja, Mukono and Mbarara. The number of house maids or house girls in Kampala, Wakiso and Mbarara has increased as a result of high population growth rates. It also supply adequate labour force for security organs like UPDF, Uganda Police force, LDU's, Saracen, Securiko, Tight, etc.

It has provided ready market for agricultural and industrial goods in Kampala, Jinja Mbarara, Mbale and Kasese. Many industries are reaping high gains from this big population in Kampala of about 1.5 millions according to 2014 census like Samona beauty products, Rwenzori mineral water, Karesh beverages for Storm bread and Karesh juice, Cheers, Mukwano industries, Hot loaf, Century bottlers, Nice plastics, Uganda breweries and many others.

It has increased government revenue in form of taxes from a wide tax base of the high population especially in Kampala, Mbarara, Mbale and Jinja. Uganda Revenue Authority earns billions of shillings from VAT taxes which are almost paid by every body in the country, as well as PAYE and local service tax from every employee.

It has ensured maximum resource utilisation such as fishing at L. Victoria, lumbering in Bugoma and Mabira, mining of Vermiculite in Manafwa and salt at Lake Katwe. Therefore to sustain such a big population requires maximum resource utilization for it to earn a living.

The government has developed several infrastructures such as roads in Kampala like the Kampala northern by - pass road from Bweyogerere via Kiwatule - Bwayise to Busega, schools, health centres at division levels known as KCC health centres and provided free education in primary schools [UPE] and in secondary schools (U.S.E) to cater for a rapid population growth.

Social seed capital [Entandikwa] to SACCO groups and Upland rice to farmers have been provided in Luwero, Wakiso, Kampala and Masaka through Ministry of micro - finance and office of the Vice president respectively to eradicate poverty and to ensure self employment to increased population.

It has promoted rapid urbanisation like the growth and expansion of Kampala, Jinja, Mbale, Tororo and Mbarara with their associated infrastructures like hospitals, Hotels, roads, banks, shopping malls and power stations. Such towns like Kampala provide social services such as University education at Makerere, Kyambogo and Nakawa; trade and commerce in Kikuubo, Nakaseero, St. Balikuddembe, Mukwano arcade, Shop rite, Garden city, Game at Lugogo; banking services in CERUDEB, Stanbic, Equity, UBA, Barclays and BOA; insurance in NIC, First insurance, Gold star and SWICO; etc.

High population growth rate has forced people to be innovative, hardworking and creative in different means of survival. For example there has been the introduction of non - traditional crops like Vanilla in Mukono, Wakiso and Kayunga as well as

the development of small scale industries at Kawempe like Maganjo industries, at Bugoloobi like Phoenix logistics, at Mengo – Kisenyi like grain millers, at Katwe like iron and aluminium smith workers, etc.

High population growth rate has led to provision of social services like water, health care, education, electricity and garbage collection in Kampala, Mbarara, Mbale, Jinja, etc. For example National water and Sewage Corporation based at Ggaba on L. Victoria has extended hygienic water in all suburbs of Kampala capital city like Kawempe, Nateete, Kanyanya, Kamwokya, Kibuye, Kasubi, Bwayise, Nakawa, Makindye, etc.

Negative impact:

A dependence burden is the ratio of non - working population. High fertility results into high total population which is dominated by children aged below 15 years. In addition to the youthful population, are people aged above 55 years. This is the unproductive group which requires food, education, medical care, clothing, housing, etc but it doesn't contribute productively as far as output of the country is concerned hence a burden on the working population in Kampala, Entebbe, Mbale, etc.

High population growth rate reduces the country's capital to save, invest and produce. This is because a lot of resources are utilized to cater for the things the population needs e.g. social services like health countries, education, transport facilities etc like in Kabale, Kampala, Mbarara, Mbale, etc.

High population growth has resulted into the shortage of land in areas like Kampala, Kamuli, Mbale, Jinja, Kisoro, Kabale, etc which has caused some people to become landless or even over use the land without any resting period leading to soil erosion, deterioration and reduced productivity hence starvation.

It has resulted into rural – urban migration due to limited land especially by the landless people e.g. many people migrate from the rural areas of Kamuli, Kisoro, Kabale and go to Jinja, Wakiso and Kampala urban centers. This has later led to rapid growth of urban areas and their associated problems such as slum development at Katanga, Nateete, Kamwokya in Kampala, theft in Old taxi park, prostitution in Kabalagala, limited social services, etc as well as a decline in food productivity from rural areas like Kigezi since it is usually the strong youths that migrate living cultivation to the weak old people.

High population growth led to sub - division of land into small plots in areas of Kampala, Kabale, Kisoro, Kamuli and Mbale hence land fragmentation and its associated problems such as discouraging large scale farming due to the small land, the decline in land productivity, increased soil deterioration and wastage of time in moving to widely spread farm holdings.

High population growth has been the main cause of unemployment problems and under employment in Uganda especially in urban areas of Masaka, Entebbe, Kampala, Mbale, Jinja, and others. This has not only led to wastage of human resources but also promotion of poverty, high crime rate as a way of survival and decline in standards of living due to failure to secure basic needs .

High population growth in Uganda has resulted into the settlement of people on marginal agricultural lands, on wildlife reserves and forested areas. This has been due to increased demand to feed the population which has left many forests destroyed e.g. the Murchison falls, Bwindi and Kibaale national parks are suffering agricultural encroachment, Basongora pastoralists in Kasese encroached on Queen Elizabeth N.P. Forests such as Mabira, Mt. Elgon and Malabigambo and Namanve are also suffering from agricultural and industrial encroachment. Encroachment on forests has led to environmental degradation in form of deforestation, reduced rainfall, soil erosion etc. While encroachment on game parks and reserves like Ajai in West Nile has led to extinction of several animal and bird species thus affecting the tourism industry and the Eco-system.

High population growth has resulted into congestion of people which has resulted into easy spread of diseases e.g. the cholera epidemic in 1997 easily affected many people in congested urban center of Kampala and suburbs like Kalerwe, Katanga, Kamwokya and Bwaise in Kampala due to congestion and poor hygiene. Airborne diseases like Tuberculosis, coughs and flu as well as AIDS are also on the increase due to high population growth rate.

High population growth in Uganda has led to low standards of living among people in Kabale, Masaka, Kampala and Mbale because those employed spend their money in providing basic needs to the dependants and others who are unemployed implying they are in total poverty hence low standards of living and miserable life.

High population growth rate has led to an increase in the number of street children or juvenile delinquency in Mbarara, Mbale, Kampala and Jinja. Some of the children are bastards who don't have parents, others come from Karamoja

region and war - torn areas of Gulu, Kitgum and Pader, some are sent by their parents to beg for a living, some are orphans whose parents died due to AIDS in Rakai and other areas and so have no one to help, etc.

High population growth in Kampala, Wakiso, Mbale, Kisoro and Kabale has resulted in high inflation tendencies because the government spends much of foreign exchange on its population by importing more social goods like drugs, books of universal primary and secondary education and others and yet this money would be used to develop other fixed developments like industries, electricity dams, roads, etc thus balance of payment problems.

High population growth rate have led to over crowding and congestion in Kampala, Jinja and Mukono like traffic congestion in Nakawa, Kireka, Seeta, Mukono and Njeru along Kampala - Jinja road; on Bombo road in Wandegaya, Bwaise and Kawempe. Such traffic congestion has disrupted operation of businesses, loss of lives by people in medical Ambulances, inhalation of Carbon monoxide gas and vehicle fumes which are dangerous to human life.

High population growth rate has resulted into high crime rates in Kampala, Jinja and Masaka. Such crimes in Kampala city range from big crimes of car robbery, bank robbery, rape, murder cases to small crimes such as pick-pocketing, mobile phone and jewellery snatching, conning people of their belongings by conmen especially along Ben Kiwanuka, Namirembe road, along Kafumbe - Mukasa road, in St. Balikuddembe market, etc.

SOLUTIONS TO PROBLEMS OF HIGH POPULATION GROWTH IN UGANDA

The problems of high population in Uganda are not real population numbers but its rate of growth which exceeds the rate of economic development. Therefore the Uganda government is trying to find measures of reducing population growth rate to a manageable level. These measures are those that lead to low birth rate and those that relieve on the population pressure in densely populated areas. These are:

Massive education and sensitization have been aimed at especially to women by Women activists of FIDA and others so as to uplift their education levels and to breakup the traditional customs and values to favour large families e.g. Polygamy in Mbale and Tororo, early marriages in Kigezi region, early sex after birth among the Bakiga and Banyakole, etc.

Modern methods of birth control like use of contraceptives have been encouraged by the population secretariat in Kabale, Mbale, Kampala, Wakiso, etc and used to reduce on the high population growth in Uganda. In addition to that, there has been an initiative to educate to women men about population control policies as a way of encouraging the use of family planning methods like condoms, pills, injectant plan, moon beads, etc.

The government of Uganda has tried to improve on the living standards of people as a long term method of reducing high population growth so that children are no longer taken as economic assets. Such social facilities have been set up like schools for universal primary and secondary education, hospitals, rural electrification and rehabilitating rural roads in all districts like Masaka, Mpigi, Ntungamo, Mayuge and Luwero.

Ugandan government has tried to reduce on the rural - urban migrations a way of reducing population growth in rural areas. This has been possible by encouraging qualitative improvement in the living conditions of people in rural areas through supporting agricultural activities by NAADS, constructing better infrastructures like feeder roads and small scale industries to increase employment opportunities thus reduced movements to urban areas.

The government has established resettlement schemes to transfer people from densely populated areas to unsettled areas to reduce on the population pressure e.g. between 1946 and 1976, government implemented a number of resettlement schemes in which about 80,000 Bakiga from Kisoro and Kabale were settled in Mubende, Kibaale, parts of Kabarole, Hoima, Mukono, Kamuli and Luwero.

The government has encouraged voluntary out migration of people from the densely populated areas like Kabale, Kampala, Jinja, Mbale and Wakiso to the areas suitable for them either internally like Kibale, Kasese, Kayunga, Kamuli, etc or externally to Rwanda and DRC.

The government has developed other economic sectors in country such as industries like Century factory in Mbarara and West Nile spirit distillers in Arua, mining of Vermiculite in Manafwa, fishing on Ssesse and Buvuma Islands in L.Victoria and gorilla tourism at Bwindi forests in Kanungu which has relieved the excessive population on land in Mbarara, Nebbi, Mbale, Manafwa, Wakiso, Mukono, Masaka, Kampala, Kabale and Kisoro respectively.

The government through NEMA has allocated some wetlands near urban areas like swamps along Mbale – Soroto road in Mbale; Masese wetlands in Jinja; Kajjansi, Busega and Namanve swamps in Kampala and Nabujuzi wetlands in Masaka for land reclamation in case the environment is not damaged and under regulatory laws to provide land for developmental projects like Industries and residential estates in the densely populated area.

The government provided economic incentives to people with small families so as to encourage producing of fewer children e.g. in 1996 the NRM government offered free education for the four children per family under UPE programme, free medical services like immunization of children under the age of five as well as giving ARV's to infested people from Public health centres such as at Mulago, Soroti, Jinja, etc.

Women activists and MPs through the parliament of 2001 -2006 tabled a bill to legalize abortion such that the unwanted / untimely pregnancies and those under cases of rape, defilement and prostitution are terminated so as to reduce birth rates.

POPULATION MIGRATION IN UGANDA

This is the movement of people from one region or country to another. It happens over a short or long distance involving individuals or groups of people due to different reasons. It is sub divided into two:

1. **International migration:** This is the act of people entering / leaving a country or region who are called emigrants / immigrants. In other wards, international migration is the movement of people beyond their countries' boundaries.

2. **Internal migration:** This is the movement of people from one place to another within the same country. In Uganda, there are of two types namely;

Rural – rural migration

Rural – urban migration

RURAL - URBAN MIGRATION

Rural - urban migration is the movement of people from undeveloped rural areas (villages) to urban areas (towns). This movement differs from one individual to another due to the economic, social, cultural and political reasons attached.

In Uganda, the most urban areas affected by this movement are Kampala, Jinja, Mbale, Tororo, Masaka, Mbarara, Kasese, Bushenyi, Busia, Malaba, etc while the rural areas are Ndorwa, Rubanda, and Mufumbiro of Kigezi; Bunghokho in Mbale; Luwero; Masindi and others.

SKETCH MAP OF UGANDA SHOWING INTERNAL AND EXTERNAL MIGRATIONS

FULL PAGE FOR A MAP

CAUSES OF RURAL - URBAN MIGRATION

These causes of RUM are grouped into two namely: pull and push factors; however, they are as a result of natural and human factors.

The push factors operates at the centre of migration making the place unsuitable for human settlement while the pull factors operate at the destination of the migration offering conducive conditions of human settlement . These factors are:

1. **Unemployment;** In rural areas, employment opportunities are generally lacked being responsible for the movement of people from rural areas to urban areas. So because agriculture is the sole source of employment in rural areas while the administration, commercial, mining, construction and industrial activities are concentrated in urban areas of Uganda like Kampala city, Entebbe, Tororo, Kasese, Mbale, and Jinja have attracted large number of people from villages looking for numerous job opportunities.

2. **Better social amenities;** Urban centres like Kampala, Jinja, Mbale, Tororo, etc have better developed social amenities which are basic services for human survival such as health centres, electricity stations, roads, piped water, etc which have pulled people from their rural areas to go and have easy access to them.

3. **Education;** Limited educational facilities and better educational institutes ranging from lower levels to higher education levels has made people to migrate from villages to urban centres where they do exist e.g. people have found their way to Mpigi, Mukono, Jinja, Kampala, Mbale, Mbarara and others for better education in primary schools like Nakasero and Bat valley in Kampala; secondary schools like Seeta high in Mukono, Naalya and Namugongo in Wakiso; universities like MUK, KU, MUBS,SLAU and KU in Kampala and MUST in Mbarara.

4. Civil wars: In some parts of Uganda, there are or have been civil wars, insurgencies and general insecurity especially in the Northern, western and other parts which have forced people to move from those affected villages of the districts concerned like Gulu, Lira, Apac, Moroto, Kitgum, Kasese, Luwero, Mbale, Tororo, Kapchorwa, etc to towns for security reasons as they escape the Lord's Resistance Army (LRA) and Allied Democratic Front (ADF).

5. Entertainment i.e. recreation centres; Majority of the youths have left villages to towns because of recreation, entertainment and excitements found in such urban areas such as cinema halls, film shows, theatres, beaches, lodges, pubs, amusement parks, casino halls, etc. In Kampala and Entebbe; night clubs like club silk, Angenoir discotheque, etc; theatres like La Bonita and National theaters; cinema halls like Cineplex, resort beaches like Imperial Resort, Lutembe, Botanical, Speke resort, etc; and amusement parts like Didi's world amazement park in Kansanga have all attracted young from different localities.

6. Over population; Some Ugandan rural areas are densely populated due to the reduced mortality rates and the concomitant high rates of population growth like in districts of Kabale, Kisoro, Mbale and others which have necessitated their migrations to Kampala, Masaka, Jinja, Mbarara and others as result of population pressure on land.

7. Better wages and salaries; The differences in wages and salaries between the rural land urban areas have led people to rural - urban migration where crowds of different people are leaving villages like Kabale, Kanungu, Masindi, Kitgum, etc to towns like Jinja, Kampala and Entebbe for higher pay especially in government parastatals like ministerial offices, NARO, NEMA, NFA, UNRA, UWA, URA, and other organs.

8. Traditional customs; In Uganda, cultural practices e.g. forced marriages in Karamoja, circumcision of males in Mbale, Bududa and Manafwa in Bugisu region; and among the Bakonja in Kasese, female circumcision among the Sebei and other rigidities have forced people to run from their home rural areas to urban areas like Kampala, Wakiso, Mukono, Mityana, Kasese, Fort portal and Mbale for hiding where such practices are at a minimum or are not valued.

9. Social misfit; Some people either voluntarily migrated to urban centers like Kampala, Wakiso, Jinja others or are being forced to migrate by the local councils or the village chiefs and villagers from Mukono, Masaka, Luwero, Mbale, Mayuge, etc after having committed a crime or social disgrace that he / she is no longer fit in society but as an out cast like being a thief, having raped or defiled, having murdered, being a prostitute, bewitcher, adultery etc.

10. Relations; Rural urban migration is also caused by relatives from rural areas such Kabarole, Kisoro Masindi, Moyo, etc in need to see those in the urban areas of Kampala, Bombo, Jinja, Mbarara, etc in order to maintain their family relationships e.g. brothers, sisters, friends, etc.

11. Bond wages; Rural urban migration is also caused by bond wages whereby some people especially among the youth like among the Batoro in Kabarole, Bakiga in Kisoro and Basoga in Kamuli move to towns like Fort Portal, Kampala, Mbarara and Jinja because others are moving / moved due to peer influence and admiration.

12. Political conflicts; Some people have left villages like Luwero, Nakasongola, Kamuli, etc to towns like Kampala, Jinja, etc because of political misunderstandings from different political ideologies among themselves especially when they belong to different political parties like NRM vs DP, UPC and FDC.

14. Unpredictable harvest; Since agricultural harvest depend on seasonal changes, meaning that the income of farmers is unstable, therefore it has forced many to abandon farming to move urban areas where they could get work of stable income in offices and commercial businesses.

15. Shortage of land; In densely populated districts, there is shortage of land for agricultural practices. The landless people in Mbale, Manafwa, Kabale and Kisoro are forced to seek other forms of employment by migrating to urban towns like Kampala, Jinja and Mbarara. For instance most of the cargo or luggage lifters and people employed in the informal sector are migrants from rural areas of Tororo, Kisoro, Iganga, Bundibugyo, Mbale and others.

16. Natural hazards; Natural factors such as drought, pests and diseases, floods and landslides which are harmful to man, crop cultivation, livestock and property e.g. tsetse flies in Hoima and Mayuge have forced people to abandon such areas and farming to urban centers like Hoima and Mayuge towns for other forms of employment in informal sectors and even of recent in March 2010, landslides are forcing the survivors in Bududa district to move to Mbale, Tororo and Manafwa towns.

EFFECTS OF RURAL - URBAN MIGRATION IN UGANDA

Rural - urban migration has positive and negative effects to both areas of origin of migrants and their destination and these are:

Positive:

Consequences to places of destination

Rural-urban migration has led to rapid growth of urban centers like Kampala, Entebbe, Jinja, Lira, Soroti, Kasese, Fort Portal, etc. For instance Kampala rapidly expanded and grew during the 1981 - 88 period in which many people from politically unstable districts like Luwero, Mpigi, Masaka and Mukono flocked it. This has led to economic growth and development in form of accommodations as real estate businesses, trade, and others.

The rural -urban migrants from Lira, Soroti, Mubende, Kabale and West Nile region provide cheap unskilled labour for industries like Mukwano oil industry in Kampala, Lugazi sugar works in Mukono and Kakira sugar works in Jinja and in the service sector like ministerial office messengers, security guards e.g. Tight; housekeepers in Kampala, Mbale, Jinja, etc.

The rural - urban migrants have provided a big and ready market for manufactured goods from industries in Kampala such as Samona cosmetics, Karesh juice, Movit cosmetics, Mukwano oil and merchandise from numerous shops along Kikuubo and Kiyembe lanes and supermarkets such as Shoprite, Embassy, Game, Garden city, Nakumanti and others.

The government tax base has increased by taxes imposed on many people and the activities carried out in urban centres like Jinja, Mbarara, Mbale, Kampala, etc in form of licenses, PAYE, Local Service Tax, etc.

There is optimum use of the available resources in the towns especially land like in Kampala, the former unoccupied hills such as Ntinda, Naguru, Kololo, Kanyanya, Kawempe ,etc have been utilized for residential houses and setting factories.

The formerly unutilized and the under utilized natural resources are bought to use productively in urban centres e.g. clay at Kawanda and Kajjansi both in Wakiso, Seeta in Mukono, Red sand in Entebbe and granite rocks at Muyenga in Kampala for building and constructional purposes.

Consequences to the places of origin

It has reduced population pressure on land and has created more land for agricultural production in the densely populated districts such as Kabale, Kisoro, Mbale, Kamuli and others hence promoting farming and reduced land related problems like land conflicts.

The rural urban migrants get exposed to better health, education, water and other social services, which have therefore improved their standards of living and declining illiteracy rates. In Uganda today, most of the elites in Kampala are migrants from Mbarara, Masaka, Luwero and other areas.

Rural urban migrants have earned increased income from towns of which they have used to develop their rural areas. Currently former rural areas like Semuto in Luwero, Bukomansimbi in Masaka, Ruhaama in Mbarara and others have been developed to a certain level which has been spearheaded by sons and daughters who went in towns and combined wealth.

Negative:

Consequences to places of destination

Rural-urban migration has led to rapid urbanization and associated problems like Kampala, Jinja, Mbale, Lira, Kasese, etc such as the increase in unemployment and crime rates like theft, prostitution; rising expenditure on provision of basic social facilities like water points, garbage collection and health centres all of which are not desirable.

It has led to the destruction of wetlands and Peri urban forests in need of land for settlement. For example wetlands of Kampala at Namuwongo, Kamwokya, Kyebando, Ggaba and Nateeta have been reclaimed by migrants to construct their houses which have led to environmental degradation.

Migrants from rural areas have led to easy spread of diseases in urban centres for example AIDS was spread in Kampala by migrants from Rakai and Masaka, Ebola was also spread in Gulu town by migrants from rural areas like Atiak, Alero and others.

It has accelerated racial, tribal and ethnic diversity which has often led to racial and tribal conflicts as well as tension for example between the northerners (Acholis and Langis) and westerners (Bakigas and Banyakoles). This has also led disappearance of good values and norms (cultural erosion) among people of different tribes living together in Kampala like loss of mother language for English, drug abuse, social etiquette among the Baganda, Iteso and Bahima in Kampala, etc.

Slum development in urban centres such as Makerere - Kivulu, Katanga, Mengo- Kisenyi, Kamwokya - Kifumbira, Kalerwa and Bwayise in Kampala is an effect of RUM. Due to high social cost of living in towns, most of the migrants can't build decent houses, so they end up building poor houses thus creating slums.

It has led to an increase in traffic and congestion in urban centres like Kampala, Jinja and Entebbe which has affected normal business transactions as well as movements. It has also caused easy spread of diseases like Cholera, tuberculosis and flu in the congested areas of Mulago, Katanga, Mengo- Kisenyi, Kamwokya, Kalerwa and Bwayise in Kampala.

There has been increased environmental pollution on land, in water and air in form of smoke, noise and dumping of domestic and industrial toxic wastes in the major towns. E.g. in central Kampala, the residents of Kamwokya, Kyebando and Kalerwe have dumped their wastes in Nsooba stream while those of Mengo – Kisenyi, St. Balikuddembe market, New Taxi park and Mukwano oil industry have polluted Nakivubo swamp.

Consequences to the places of origin

It has resulted into depopulation of rural areas like Luwero, Mpigi, Bukomansimbi in Masaka, Tororo, Kapchorwa, Ntungamo and other parts as all the energetic youth have migrated to urban centers. This has left the weak and old people to practice agriculture thus leading to low agricultural productivity. In fact today, famine and lack of enough food are experienced in many rural areas because of this reason.

It has led to scarcity of cheap labour in rural areas like Kisoro, Masaka in Bukomansimbi, Sembabule, Mbarara in Ruhama which has affected economic activities like mining, fishing, forestry and others.

It has led to neglect of parents and the entire family which is left in rural areas like Luwero, Sembabule and others. This has raised social constraints among family members for example the late Local musician Paul Kafeero from Nkokonjeru village in Mukono district refused any of his relatives to be involved in his burial arrangement in case he dies.

MEASURES TAKEN TO CURB RURAL - URBAN MIGRATION IN UGANDA

The following are the steps being taken to reduce on rural - urban migration in Uganda:

Government is establishing basic social facilities like schools for universal primary and secondary education at sub county level in all districts, recreational centres, health centres, rural electrification and rehabilitating rural feeder roads to tarmac in all districts like Masaka, Mpigi, Ntungamo, Mayuge, Luwero, etc to reduce the rate of rural-urban migration.

Rural industrialization has been encouraged so as to create employment opportunities to the rural dwellers and to provide manufactured goods to them at relatively cheaper prices. For example the Century bottling factory in Mbarara, West Nile distillers in Arua, Alpha and JBK dairies in Mbarara, and many more.

The government is sensitizing the public on sub county levels in different rural districts through National Agricultural Advisory Services (NAADS) and NARO to improve agricultural farming on application of fertilizers, crop rotation, fallowing, irrigation and use of pesticides to increase agricultural productivity. Demonstration ranches like Ankole – Masaka in Mbarara, Maruzi in Amoro, and Aswa ranches in Kitgum have been established to improve livestock productivity.

Land reform policies e.g. land consolidation as opposed to land fragmentation are being undertaken to create bigger plots of land for increased output in Kisoro, Mityana, Mbarara, Mbale and Tororo.

The Population secretariat has under taken population control measures through introduction of family planning practices such as use of contraceptives like injectant plans, moon beads and pill plans in Kisoro, Mbale and Luwero which could reduce population pressure on land.

The government has provided security in rural areas of Kasese, Gulu, Pader, Kitgum, Soroti and Amuria to facilitate economic investment and peace. The Arrow boys and Amuka security personnels together with UPDF were deployed in Teso and Gulu, Lira and Pader to drive away the LRA rebels.

The government is opening up a wide market for agricultural products from rural areas like Sembabule, Nakasongola, West Nile and revising prices for agricultural goods such as milk, tobacco, vanilla, Coffee and cotton so as to support the rural farmers economically. Farmers, cooperatives have also been established e.g. Bugisu cooperatives in Mbale, Banyankole Kweterana cooperatives in Mbarara and Bushenyi.

The Ministry of agriculture has diversified agricultural crops so as to reduce seasonal unemployment among the rural dwellers by introducing a variety of crops both perennial and seasonal crops such as Vanilla, Moringa, Aloe vera, sun flower, colonial coffee and organic cotton in Mukono, Rukungiri, Wakiso, Lira, Moyo, etc.

The government is reducing the rate of rural - urban migration by providing social seed capital (Entandikwa) for people in rural areas of Luwero, Wakiso, Kayunga, Mayuge, Rakai, Ruhaama, etc. The capital is in form of cash, hybrid seeds e.g. upland rice in Wakiso is given by the vice president, cassava planting stems in Soroti, Luwero and Tororo etc. Prosperity for all 'Bonna bagaggawale loans' is also given out to people in SACCO (savings and credit cooperatives) groups through Micro finance institutions in every corner of the country be it villages or towns.

The government is discouraging rural-urban migration through seminars, magazines, workshops and mass media like new papers, FM radios and T.Vs. Public seminars are held in rural areas of Masaka, Luwero, Kisoro, Mbale, Mbarara and others teaching people better ways of utilizing rural facilities like land, forests and water to become self sufficient rather than going to towns.

The Uganda parliament together with women activities and FIDA tabled and established laws in 2009 against the unbecoming cultural activity of the women circumcision among the Sebei in Kapchorwa district as an effort to protect their marital rights which could eventually curb RUM.

The government encouraged rural –rural migration especially of the landless people from the densely populated areas of Kigezi and Gishu lands. This happened among the Bakiga from Kisoro and Kabale who were taken to Kibaale, Kasese, Mubende, Kibaale, Kabarole, Luwero, Hoima, etc as well as the Bagishu from Mbale to Mukono, Kamuli

Sample questions:

1. (a) Account for the high population growth rates experienced in many parts of Uganda
(b) Discuss the effects arising from the rapid population growth in the areas identified in (a) above.
2. The table below shows population distribution in selected districts of Eastern Uganda.

DISTRICT	AREA (KM ²)	POPULATION	POP/ KM ²
Kotido	13, 207.8	161,44	1.2
Moroto	14,113.3	188,641	13
Kaabong	8, 526.2	476, 629	56
Bundibugyo	2,456.7	239. 539	98
Kisoro	2. 503.6	556,941	223
Kitgum	1,738.3	73, 967	43
Kampala	3. 889.3	668,410	171
Wakiso	4, 822.9	643, 881	134
Kabale	677.0	228. 520	338
Ntungamo	3, 332,2	349, 549	—

- a). Using the statistics in the table and the base map of Uganda provided, prepare a population density map (choropleth map) and dot map.
- b) Account for the variations in population densities in selected districts in the table.
3. To what extent have physical factors influenced population distribution in Uganda?
4. To what extent has rural to rural migration been a solution to the population pressure problem in Uganda?
5. (a) Examine the causes of rural urban migration in Uganda?
(b) What are the consequences of rural urban migration?
(c) Outline the steps being taken reduce rural - urban migration in Uganda?
6. Examine the causes of population migration in Uganda since 1900.
7. Discuss the factors responsible for rural population redistribution since 1900-1962.
8. Study the table below showing immigration and emigration rate of selected districts in Uganda 1991) and answer questions which follow

DISTRICT	% Immigration rate	% Emmigration rate
Kampala	57.45	32
Kalangala	40.03	30.83
Kabale	1.96	35.33
National	17.68	17.68

Adapted from Nema (1996), *State of the environment report of Uganda* P.156

- Draw a suitable graph represent the information in the table
- Account for the high :
 - Immigration rate in Kampala district
 - Emigration rate in Kabale district
- Explain the effects of migration on the areas of:
 - Origin
 - Destination

9. Examine the relationship between the population density and rainfall distribution in Uganda.

SAMPLE APPROACH:

INTRODUCTION

- You are expected to define the keyword(s) i.e. population density / distribution / growth / migration / RUM / RRM.
- You are expected to cite out the status / stand / trend in relation to the keyword(s).
- You are expected to identify and locate the areas in relation to the keyword(s)
- You are expected to draw a sketch map to show the identified and located areas with names of places.

BODY

- You are expected to bring out, explain and illustrate the points (factors / reasons) in relation the demands of the command word in the question and the keyword(s).

TOURISM AND WILD LIFE

Tourism is a re-creative and lucrative invisible economic activity which deals in traveling of people from one place / country to another with the purpose of visiting places of pleasure, studying, leisure, curiosity and interest

While wild life refers to fauna (animal life) and flora (plant cover) in their natural habitats.

STATUS AND TREND OF TOURISM INDUSTRY IN UGANDA

Generally, tourism industry in Uganda has the following status or trend;

- ~ It was a major foreign exchange earner in 1960s as it ranked as the 3rd foreign exchange earner after coffee and cotton.
- ~ In 1970s due to political instabilities, poor management and other poorly facilitated infrastructures, tourism declined.
- ~ From 1986 – 2007, tourism is booming at high rate due to the positive policies such as infrastructural development, political stability, foreign investment, liberalization and privatization.
- ~ **Currently** it is among the leading foreign exchange earner contributing about 25% of export earnings of over US \$ 320 million per annum.
- ~ Uganda is one of the leading important tourist destinations in the World, being ranked as the 4th in the whole world and 1st in Africa according to National budget 2017 /2018.
- ~ Gorilla tourism is the leading attraction and alone employs about 5,000 people in tours and travel.
- ~ Wildlife is the major tourist attractions in Uganda.
- ~ The tourist industry is one of the fast growing and developing sector in Uganda.
- ~ Most of the Uganda's tourists are foreign from Europe, North America, Asia and some few from African countries like South Africa, Egypt.
- ~ The numbers of foreign tourist arrivals are increasingly rising over years that the sector receives 1 million visitors per the year.
- ~ Gorilla tourism accounts 50.4% of revenue generated for the Uganda Wildlife Authority.
- ~ Some tourist sites are rehabilitated and renovated like Kasubi Tombs in Kampala and Namugongo Martyrs' shrines in Wakiso.
- ~ Man-made tourist attractions are poorly managed like Fort Lugard, National theatre and Uganda Museum in Kampala.
- ~ New tourism products / sites have been launched and promoted like Rolex chapatti, Kampala–Entebbe Expressway in Kampala, Source of the Nile bridge in Jinja, Miss Curvy pageant in Kampala, Bull fighting in Mbale, etc.
- ~ Tourism sector is under the management of Uganda Tourism Board and Uganda Wildlife Authority and Ministry of Tourism.
- ~ More national parks and wildlife reserves have been gazetted up to over 22 in total such as Kibale N.P in Kamwenge, Semliki N.P and Toro N.P in Bundibugyo, etc.
- ~ Great efforts are being done to protect and preserve the rare endangered wildlife species such as Chimpanzees on Ngamba Island in L.Victoria in Mukono, White rhinos at Ziwa ranch in Nakasongola.
- ~ Modern accommodation facilities like lodges and hotels for tourists have increased in number and rehabilitated from 1200 by 2004 to 4500 by 2008 such as Simba Safari lodge in Kasese, Serena hotel, Hilton and Speke resort Munyonyo in Kampala.
- ~ More private travel and tour agencies have been started / brought on board such as Great Lakes safaris in Kampala, etc.
- ~ The number of people employed in the sector has increased over years to about 7.4% of the total number of Uganda's population and the Uganda Wildlife Authority spends about 10.5 billion shillings on salaries.
- ~ Fort Portal City in Kabarole is the main city of tourist destination in Uganda

TOURISM ATTRACTIONS AND POTENTIALS IN UGANDA

The following are the major tourist attractions that make Uganda, a holiday paradise for the tourists;

- ~ **Wild animals (Fauna)** in national parks, wildlife reserves, sanctuaries and the wild life educational centre at Entebbe like elephants in Murchison falls, antelopes in Lake Mburo in Kiruhura, gorillas in Bwindi impenetrable in Kanungu, chimpanzees in Mgahinga in Kisoro, etc.
- ~ **Relief features** such as mountains like Mt. Rwenzori, snow-capped horst in Kasese, Mufumbiro in Kisoro; Western Rift Valley in western border; craters like Wagagai on top of volcanoes of Mt. Elgon in Mbale, and Lake Katwe in Kasese; etc
- ~ **Drainage features** such as Waterfalls and rapids like Bujagali falls in Jinja, Karuma falls in Kiryadongo and Murchison falls in Buliisa all along Victoria Nile; Kisizi falls in Rukungiri; Sippi falls in Kapchorwa and Ssezibwa falls in Mukono; hot springs like Kitagata in Bushenyi, Sempaya in Bundibugyo, Kichumbi in Kabale, Kisizi in Rukungiri and Kibiro in Hoima; beaches like resort beach Entebbe in Wakiso, K.K beach at Ggaba in Kampala, imperial resort beach and Lutembe beach on shores of lake Victoria in Wakiso, etc; lakes like Mutanda in Kisoro, Bunyonyi in Kabale, Katwe in Kasese, etc and rivers like Victoria Nile in Jinja, Albert Nile in Arua, Ssezibwa in Kayunga, Kazinga channel in Kasese, ...
- ~ **Vegetation / Flora** such as forests like Budongo in Masindi, Bugoma in Hoima, Kibaale in Kamwenge, Semliki in Bundibugyo, Mabira in Buyikwe, Mt. Elgon in Mbale, Mt. Rwenzori in Kabarole; dry savanna in Queen Elizabeth in Kasese etc.
- ~ **Historical sites** such as Speke memorial in Jinja, Bigobomugenyi in Masaka, Baker's Fort in Gulu, Namugongo martyrs shrine in Kampala, Kasubi tombs in Kampala, Uganda museum in Kampala, Nyero rock paintings in Kumi, Fort Lugard at Old Kampala, Nommo Gallery in Kampala, etc.
- ~ **Traditional culture** such as Kasubi tomb in Kampala for the Kabakas in Buganda, male circumcision / Imbalu among the Bagishu in Mbale, Nkokonjeru tombs in Mbarara, etc.
- ~ **Hotels and lodges / accommodation centres** such as Sheraton, Imperial, Equatorial, Serena and Triangle in Kampala; Mweya safari in Kasese, etc.
- ~ **Political climate** such as the areas affected by the political instabilities / war – torn areas like Northern areas in Gulu, Pader, etc.
- ~ **Tropical climate** of hot and warm conditions in Kampala, Entebbe, etc
- ~ **Transport network** such as Entebbe international airport in Wakiso, Source of Nile Bridge in Jinja, Kampala-Entebbe Expressway and Northern by pass in Kampala.
- ~ **Urban centres / towns** such as Kampala, Mbale, Busia, Jinja, Mbarara, etc.
- ~ **Equator** as an imaginary line at Kayabwe near Masaka and at Bwera in Kasese.
- ~ **New and recent developments** such as Albertine oil wells in Buliisa, Industrial parks at Namanve in Kampala, Source of Nile Bridge in Jinja, Kampala-Entebbe Expressway, etc.
- ~ **Etc.**

MAJOR ALLOCATED AREAS FOR WILDLIFE

The following are the major allocated areas for wildlife in Uganda;

National park is an area gazetted for the preservation of wild animals (fauna) and vegetation (flora) for public pleasure as well as for scientific and historical significance and covering a total area of 11,023 km². These are Murchison falls national park (Kabalega) in Masindi, Amuru and Buliisa; Queen Elizabeth national park in Kasese and Bushenyi; Mt. Rwenzori forest national park in Kasese; Semliki forest national park in Bundibugyo; Kidepo national park in Kaabong; Mt. Elgon national park in Mbale, Sironko, Manafwa, Bududa and Kapchorwa; Kibaale national park in Kabarole and Kamwenge; Lake Mburo national park in Kiruhura; Mgahinga national park in Kisoro; Bwindi impenetrable forest national park in Kanungu; etc.

Wildlife reserve is an area of wild life put aside for future expansion into a national park, administration and research and they cover about a total area of 9,282 km². These are Toro game reserve in Bundibugyo, Bokora corridor game reserve in Moroto, Kigezi game reserve in Bushenyi and Rukungiri, Katonga game reserve in Kyenjojo and Kamwenge, Kyambura game reserve in Bushenyi, Pian -Upe game reserve in Nakapiripirit, Kibaale forest corridor in Kamwenge, Karuma game reserve in Masindi, Matheniko game reserve in Moroto, Kitagati game

reserve in Bushenyi, Kikagata game reserve in Ntungamo, Ajai game reserve in Arua, Bugungu game reserve in Buliisa, Semliki game reserve in Bundibugyo, etc.

Community wildlife area is a place where animals are kept for public viewing and hunting is allowed by special permits from the authorities and they cover a total area of about 35,143 km². These are Katonga in Kyenjojo, East Madi in Moyo, West Madi in Yumbe, Sebei in Kapchorwa, Semliki in Bundibugyo, South Karamoja in Nakapiripirit, North Karamoja in Moroto, Buhaka in Hoima, Napak in Moroto, etc.

Wildlife sanctuary is an area gazetted by the state in order to preserve, conserve and protect animals and birds as well as plants which are nearing depletion or extinction and they cover a total area of about 966 km² such as White Rhinos in Mountain Kei in Yumbe and Otze forests in Moyo (West Nile) and Chimpanzees and Mountain gorillas on Ngamba Island in L. Victoria in Mukono, Mount Mgahinga in Kisoro and in Bwindi impenetrable forests in Kanungu and other sanctuaries are Entebbe, Jinja, Malaba, Kazinga and Zoko forest.

Wildlife ranches mainly for white rhinos such as Ziwa Rhino ranch in Nakasongola

A SKETCH MAP OF UGANDA SHOWING WILDLIFE CENTRES AND OTHER TOURIST ATTRACTIONS

Full page

FACTORS THAT FAVOURED THE DEVELOPMENT OF THE TOURISM INDUSTRY IN UGANDA

- Uganda is endowed with variety of faunas (wild animals) like elephants, zebras, antelopes, lions, hyenas, cheetahs, leopards, snakes, lizards, crocodiles, hippopotamus, fish, ostriches, woodpeckers, vultures, crested cranes, gray parrots and others found in the national parks, game reserves, sanctuaries and zoos such as Kidepo, Mgahinga, Murchison, Lake Mburo, Entebbe Wildlife centre, etc.
- Uganda has a beautiful scenery composed of relief features both volcanic and block mountains like Elgon and Rwenzori; drainage features like lake Victoria as biggest in Africa, Katwe, Mutanda, and Albert, and Victoria Nile river Sezibwa and Katongo, Ggaba beach, Lido beach and Garuga golf course; Western rift valley, Butiaba escarpment and Kichwamba escarpment; glaciated features like Lau du Speke on Mt. Rwenzori; etc are all great tourist attraction for Uganda's tourism sector.
- Uganda is with varied floras / vegetation types found in different parts of Uganda which have offered a natural beauty over the landscape. For instance equatorial rainforests like Mabira, Budongo, Malabigambo, Ssesse islands; montane forests like Mt. Elgon, Rwenzori, Muhavura; dry golden savanna at Muhokya in Kasese, Mburo and Murchison and swamps like Nabajuzi, Mpologoma, etc have attracted tourists for different pleasure activities such as camping, filming, adventure and ecological studies.
- Existence of the unique traditional norms, cultures and black races have the favoured the tourism sector. Uganda has various cultures due to the variety of tribes e.g. Gishu, Ganda, Toro and Lango, etc. Tourists come and view the Ugandan cultural dressings, entertainment, rituals and human colour which are quite different from those of the Americans, Asians and Europeans. Some tribal societies are still primitive and even walk naked like the Konjo and Karamojong which offer chances for eco – tourism.
- Uganda is experienced with equatorial warm and hot climate is around L. Victoria areas; tropical in Soroti, Lira, Gulu and Rakai; semi-arid is in Karamoja region and Kasese and varied montane climate on mountains of Rwenzori and Elgon which is a unique feature not found in every country. More to that, most parts of Uganda receive adequate sunshine at all times of the year because they are crossed through by the equator which all have attracted people from temperate countries like Britain, Iceland, Russia, USA, Canada and Finland to enjoy sun bathing and other adventures.
- Presence of important historical sites and forts such as Nyero rock paintings in Kumi, Pakuba in Gulu, Walasi in Mbale, Tanda in Mpigi, Sanga hills stone age site in Masaka Kagadi in Bundibugyo, Parajok and Padibek in Kitgum,

Kasubi tombs Namugongo Martyrs shrines and Fort Lugard in Kampala have all attracted various tourists because of their historical and cultural significance.

- Uganda, since 1986 has been stabilized in most parts of Uganda thus calling for many tourists. Most of the parks and reserves like Murchison falls and Lake Mburo are in politically stable areas of Masindi and Mbarara respectively. Those which are insecure like Kibaale, Kidepo and Bwindi peace is always ensured by UPDF and game rangers.
- Well-developed accommodation facilities have been put in place in different parts of Uganda to provide the necessary services to the tourists e.g. Grand Imperial hotel in Kampala, Kampala Sheraton, Mwea lodge in Kasese, Imperial Hotel at Entebbe, Mountain Elgon hotel in Mbale, White horse inn in Kabale and Speke Hotel in Kampala, Apoka lodge in Kidepo valley, Clouds lodge in Bwindi have been set up to offer excellent tourist services.
- Welcoming attitude and good hospitality among the Ugandans such as Baganda, Basoga, Bakonjo and Japhadhola as they willing receive, guide and serve the tourists has also played a big part in attracting the tourists in the places like in Kampala at Kasubi tombs, Namugongo shrines and Uganda Museum; in Jinja at the Source of Nile and Bujagali falls; Mt. Rwenzori and Tororo hill rocks respectively.
- Existence of fairly developed transport and communication systems in areas where the tourists attractions are e.g. roads from Kampala to different parts of Uganda like Kabale (Mgahinga and Bwindi), Mbale (Mt. Elgon, Sippi falls and Nyero rock), Kasese (Queen Elizabeth, Katwe and Toro kingdom), Gulu (Baker' Fort and R. Aswa), etc have been rehabilitated and constructed. Entebbe international air port has been renovated to the expected standards and other air strips such as Gulu, Arua, Kasese and Soroti for easy transport in Uganda have been developed and reactivated. The communication companies are also up to date by use of mobile phones for easy communication services in case of booking like MTN, Smart, Warid, Orange and UTL.
- The tourism industry through Uganda Tourism Board and Uganda Wildlife Authority have taken an initiative of intensively advertising Uganda's tourist attractions both at local and international level in form of short films, embassies, brochures, newspapers like New Vision, magazines, booklets, trade fairs, road side posters on Entebbe road, radio and television like CNN (Gifted by nature), WBS (Pearl of Uganda), Record (Pearl adventure) and NTV (Sights and Sounds) to improve the tourism image and attract more tourists to Uganda.
- Presence of trained and skilled man power to serve and manage the tourism industry in different related activities possible because of the tourism training courses offered at Makerere University and at Institute of tourism in Jinja. Serena, Africana and Sheraton international hotel also equip their staff in customer care services for quality services to tourists.
- There are easy entry requirements for tourists from countries where tourists come from. The Ugandan government has eased visa requirements for tourists from different countries which are major tourist donors at embassy headquarters in countries such as USA, Canada, UK, Sweden, Germany and Asian countries.
- The tour operation services have been revised and privatized to improve on the movement packages of the tourists to the various tourism centres. These tour agencies have organized tourist packages and movements at attractive prices such as Rwenzori travel and Tour agency in Kampala, Uganda Safari Company, Back packers in Kampala, Crescent Tour and Travel Ltd, in Kampala, etc.
- Ugandan government through its policies of liberalization and privatization has attracted both local and foreign investors in the tourism industry by exempting them from taxes, giving them incentives to carry out their businesses e.g. Sarova hotel in the Murchison falls national park is operated by Madhvan, Speke resort Munyonyo is managed by Sudhir group of Companies, etc.
- Mass sensitization and education has been implemented to the Ugandans to have interest, positive attitude and appreciate the value of tourist attractions such as forest reserves, fauna and swamps and the tourism industry as a whole through seminars, workshops, radios like CBS and televisions like UBC, NTV and WBS spearheaded by UWA and NEMA.
- Presence of initial capital to invest and develop tourism industry from Ugandan government, local investors and foreign donors such as the European Union and World Bank to put up infrastructures like roads, air crafts, education centres, hotels, training man power, etc. For instance NRM government funded the renovation of Entebbe airport into an international one, upgrading of Ggaba road to Speke hotel Munyonyo, Entebbe road from the airport and to Entebbe

wildlife centre and renovating Nile hotel into Serena Hotel. (in the budget for the sector in the 2010/11 financial year was about Shs 2.1 billion (\$900,000)

- Through government policy, the government organs such as NEMA, NFA and UWA as well as the parliament have gazetted more national parks, game reserves, sanctuaries and other tourist centres in its way of promoting tourism like Semliki N.P, Kibale N.P and Elgon N.P. More still, the ministry of education, courses related to tourism have been put in place such as bachelor of tourism, bachelor of leisure and hospitality, bachelor of hotel and catering offered at MUK and MUBS to uplift the tourism services.
- Preservation and conservation of endangered or extincting plants found in forest reserves like Mabira, Bwindi, Kibale, etc and animal species such as Mt. Gorillas in Bwindi, Chimpanzees in Mgahinga forests, White rhinos in L. Mburo, Mt Kei and Otze and giraffes in Kidepo N.P. as well as in Entebbe Wildlife centre for development of tourism industry.

ECONOMIC IMPORTANCE OF TOURISM IN UGANDA

- Tourism is an important economic activity because it directly brings in foreign exchange to Uganda. It is estimated that about \$450m in are added to national income through tourism as tourists come in and spent a lot of money in form of accommodation, transport and entrance fees payable in game parks like Murchison falls, hotel bookings in Sheraton, Mweya safari lodge, Sarova hence foreign exchange, which is used to develop roads, hospitals & schools. In 1991, more than US\$ 20m was obtained from tourism and more than \$30m was earned in 1993. In 1995, total receipts from tourism were \$90.1 million. Currently it contributes approximately 25% to GDP.
- Tourism has generated employment opportunities to many Ugandans in different categories. It is estimated that the industry employs over 70,000 people either directly or indirectly in Hotels like Speke resort hotel, lodges, game rangers and tour guides, game parks like Rwenzori Game Park, transporters like tour and travels, and those who carry the luggage of mountain climbers on Rwenzori and Muhavura mounts and those in top offices in UWA and UTB. The tourism industry provides employment opportunities to many people in Hotels like Speke resort hotel, lodges, game rangers and tour guides game parks like Rwenzori Game Park, transporters etc. These employees are paid income to improve on their standards of living.
- The tourism industry has helped in diversifying the Ugandan economy which has been predominantly on agricultural country which is an unpredictable sector usually hit by low prices on the world market or climatic and biotic hazards. For instance Rwenzori, L. Mburo and Kidepo national parks provide side income to tourist guides who double as farmers and pastoralists at the same time. Therefore the government earns from tourism, agriculture and manufacturing industry.
- Tourism has stimulated the growth of local art and handcraft industry where foreign visitors buy large amounts of local handcraft items like wood curvings, textile weavings, backcloth painting, drums, clay curving, etc. In Jinja, Kampala and Entebbe Wood curvings, art pieces, baskets, mats, and grass hats are crafted and sold at the source of the Nile, Bujagali falls; along Buganda road, National Threate and Entebbe wildlife centre respectively.
- The industry has helped much in facilitating the conservation and maintenance of the wildlife reserves as it is the biggest tourist attraction. This has been possible by the entry fees paid by the visitors to view the wildlife in different game parks, game reserves and at the Wildlife centre at Entebbe is used to buy meat and other animal feeds in the park or wild life centre.
- It has promoted urbanisation / the growth of urban centres especially in areas where there are tourist attractions and sites e.g. Jinja town is near source of Nile and Bujagali falls, Kampala is near Namugongo shrines, Fort Lugard and Uganda Museum, Entebbe is near several beaches like Lido and Lutembe and Entebbe wildlife, Kaabong is near Kidepo valley N.P, Kayabwe along Masaka road and Kakorongo in Queen Elizabeth Park are near Equator.
- The tourism industry has helped in training of necessary skilled manpower especially in the field related to tourism e.g. tour guides, Linguistics, receptionists, guards, managers, game rangers in Rwenzori and Murchison falls national parks as well as in hotels such as Serena, Sheraton, etc. Tourism courses have been introduced at Makerere University and Jinja tourism institute.
- Major transport facilities like Kampala to Entebbe road, Kampala to Jinja road, etc have been renovated and rehabilitated as they lead to major tourist centres like Entebbe wildlife centre and source of Nile, Bujagali falls, etc. Hotels and lodges have been updated to reach the international standard for better services to tourists like White horse

in Kabale, Crested Crane in Jinja, Mweya Safari lodge in Kasese, Grand Imperial and Serena in Kampala, etc all as result of tourism.

- Tourism has promoted research and education among students of higher institutions of learning like universities and various secondary schools. Students research on animal behavior and botany from national parks and game reserves like students of Institute of ecology located at Mwea in Queen Elizabeth national park and those of Makerere University use Kibale forest reserve and Bwindi for research purposes.
- Tourism has put to use the land that could otherwise be left idle and unutilized. Such area include those that receive low and un reliable rainfall, those areas with infertile soils and those infested with tsetse flies e.g. Kidepo, Murchison falls and lake Mburo areas were inhabitable but have been put into economic use by gazatting them as national parks.
- National parks and game reserves have helped in the protection, preservation and conservation of the environment and Eco-system generally like forests which are not tempered with because they reduce soil erosion, land slides on mountain slopes and climatic changes. The gazatted forests such as Mabira and Semliki have also protected the water catchment areas since forests owe origins of some rivers such as R. Musamya and R. Semliki respectively. Chimpanzees and mount Gorillas are conserved in Mgahinga and Bwindi national parks.
- Tourism in Uganda in particular has created friendship among the nations from which the tourists come from which has later attracted foreign aid and grants necessary for economic developments. Most of the non-governmental organisations such as DANIDA from Denmark came after touring the country and witnessing the low level of economic development in that they are now here to assist the country in constructing schools, hospitals and many others.
- Tourism has maintained the wildlife reserves in that the entry fees paid by visitors to view the wildlife in the game parks, game reserves and at the Wildlife centre at Entebbe is used to buy meat and other animal feeds in the park or wild life centre.
- Tourism has promoted the agricultural sector through offering market to the agricultural goods especially food stuffs which is consumed in hotels such as Mweya Safari lodge in Kasese, Grand Imperial and Serena in Kampala, etc. The industrial sector has also been boomed by tourism through increased demand for the industrial products, photographs and other industrial related goods for example photo films and papers from Fotogenix limited in Kampala and Mosquito nets and Curtains from Quality Chemicals at Luzira.
- Tourism has offered Uganda as a country a good image as well as international recognition as tourists inform others about what Uganda can offer as a way of advertising her natural resource endowments like petroleum deposits along the Western Rift valley of Uganda, etc.
- Tourism has promoted the growth and development of the filming and photography industry. In Mgahinga, Bwindi, Rwenzori and Kazinga channel game parks, the conserved endangered animal species such as chimpanzees, gorillas, Elephants, Lions, Cheetahs, Buffaloes and birds like crested cranes and parrots are photographed for magazines and filmed for commercial purposes.
- Tourism has helped in the preservation and conservation of African culture and traditional customs which act as tourist attractions e.g. circumcision among the Bagisu, traditional dances of Baganda and Banyoro, coronations of kingdom kings and burial ceremonies. In the Uganda museum at Kampala, a variety of ancient cultural norms and pieces such as dress code, cosmetics are conserved for viewing by both local and foreign tourists. This helps transmitting the local culture to the next generation and abroad.
- Tourism played a role in balancing the economic development in the country. Since all corners of Uganda have tourist assets e.g. in the West Nile and North, there is Albert Nile, Fort Baker, Aswa river, etc, in the North East, there is Kidepo National Game Park, in the East, there is Pian-Upe, Bakora corridor, Sipi falls, etc in the West, there is Semliki National Park, Mt. Rwenzori game reserve and in the south west, there is Mufumbiro Mountains, Bwindi forests, etc. Such a balanced distribution of economic assets has led to a more relatively equal income distribution, which enable the country to develop as a whole.

NEGATIVE EFFECTS OF THE TOURISM INDUSTRY IN UGANDA

The following are the side effects of the tourism activities in the areas they are carried out or Uganda as a whole;

- Large pieces of land have been set aside for wild life conservation in terms of game parks, sanctuaries and game

reserves which is an obstacle or a hinderance to other land uses. For example, the Murchison falls, Sippi and Bujjagali falls, would provide hydro electricity than conserving them for tourism. Vast areas of land gazetted for game parks like Murchison falls National Park would encourage extensive crop cultivation and pastoralism, mountain Elgon forest national park led to the displacement of people, etc.

- Wild animals in national parks and other tourist centres are a danger to human lives and people's property especially those living the tourist centres with forests. Animals destroy crops, eat the domestic animals as well as feasting on people. For example in 2005, the crocodiles in lake Victoria feasted on approximately 80 human beings in Bugiri and Mayuge districts on the shores of lake Victoria, elephants from Kibale forest destroy crop farms in Kibale district, etc.
- Some national parks and game reserves are densely populated with animals which are destructive to the environment. A large number of hippos in Lake Edward - George region and gazelles in L. Mburo N.P have led to over grazing thus severe soil erosion in the area. Trees are cut down to construct temporary accommodation structures and fuel wood for camp fire at night has forest depletion hence environmental degradation.
- Wildlife conservation areas such as Queen Elizabeth, Bunya forest reserve, Murchison falls national park are breeding areas for pests like tsetse flies, mosquitoes, ticks, Marburg virus, Bird flue, etc have threatened and scared the population around tourist centres which would have been labour force as the above pests cause diseases to them and their animals e.g. Nagana, sleeping sickness, Malaria, etc.
- Since Uganda's tourist industry is driven and being invested in by foreign investors, much of the profits earned from the tourists are being repatriated to their mother countries leaving Uganda drained and undeveloped. For example Madhvani group of companies who invested in Mweya safari lodge have profit repatriated to Asia.
- Tourism industry is seasonal, unpredictable and very delicate industry, so it is unwise for Uganda to depend on it much because it may disappear almost overnight as a result of political instability, disease outbreak, natural disaster and economic depression in the economy. For example the killing of tourists in Bwindi national park in 1990's, the constant outbreak of cholera in Kampala, Ebola in Gulu and presence of Aids in Uganda is a threat and has reduced the number of tourists. This has caused gross loses by the government and people who invest in the industry.
- Ugandan tourists are much foreign who come only during certain seasons when it is winter in their countries especially in Europe and North America. This increases the cost of operation of the tourist facilities in the months when the tourists are not in Uganda such as hotels are underutilized and this leads to high costs of operation of hotels like Africana in Kampala, Palm resort beach hotel in Entebbe, etc.
- The industry has led to an increase of prices of certain commodities and services where tourist attractions are found like arts and crafts, food stuffs, crafts, drinks and other attractive goods are sold expensively. For example food stuffs in Entebbe areas, arts and crafts at Buganda road in Kampala and Hotel accommodation facilities like in Sheraton and Grand imperial hotel are at high prices.
- The tourism growth in Uganda is coupled with the promotion of bad behaviors from different tourists with different life styles, so the Ugandan traditional values, culture and ways of living are likely to die out. For example, it has brought in the undesirable western ways of living like prostitution, clothing, religion, drug addiction, commercial Child sex, homosexuality and smoking in small towns like Kabalagala, Kayabwe along Masaka road and Nakasero in Kampala.
- Tourism in Uganda has encouraged the smuggling out of some rare wild life species world wide e.g. it is reported that through Entebbe international Airport, gorillas, Chimps, Monkeys and beautiful birds like parrots from south Busoga forests, Bwindi forests and Malabigambo forest are smuggled. This threatens sustenance of the industry ecological balance.
- Tourism put pressure on all local resources such as energy, water and food. For example mushrooming hotels to support tourism like Serena, Sheraton, Golf course, Speke resort hotel have led to inadequate HEP supply leading to load shedding.
- It has also led to environmental pollution e.g. mountain climbers usually abandon polythene bags and oxygen containers on Mount Rwenzori and Elgon, different hotels release kitchen gases and wastes, etc.
- Some wrong elements pretend as tourists and cause damage in the country. Some of them are spies or even thieves who may cause danger to National security. Terrorism in Kampala in 1990,s such as bombs in Bars was suspected to be an act of some tourists.

- Some tourists are suspected to spread diseases to wildlife. For example the death of hippos in large numbers in Lake Edward – George - Kazinga channel complex in 2001 was suspected to be a human disease from tourists.

PROBLEMS FACING TOURISM INDUSTRY IN UGANDA

There are many problems limiting the development of tourism industry in Uganda despite some of the developments the industry has reached at. These problems are:

- In Uganda tourism is suffering a stiff competition with other land users as the population increases more land is needed for both agriculture and settlement that why many national parks, game reserves and forest reserves are suffering from population encroachment due to limited land for expansion e.g. Kibale national park by the Bakiga migrants from Kigezi, the Karamojong graze their cattle in the Kidepo valley National park while Basongora herdsman have encroached upon Queen Elizabeth national park, Mabira forest reserve is encroached by SCOUTS, etc.
- The tourism industry in Uganda is faced by stiff competition from its neighbouring countries especially Kenya and Tanzania and even those countries beyond like Namibia, Switzerland, South Africa, Zimbabwe, etc. For example the biggest number of wild animals like wild beasts, giraffes and buffaloes are found along the Serengeti plains in Tanzania, the number of lions in Tsavo Park of Kenya out numbers those in Queen Elizabeth National Park. Kenya and Tanzania are on the coast with better beaches, harbours and hotels. On the other hand, Uganda has the same species with her neighbours. Tourists therefore are more attracted to Uganda's neighbouring countries.
- Every year many wild animals are killed from national parks, wildlife reserves and sanctuaries either for food, hides, and other purposes which has led to the disappearance of valuable animal and bird species such as the white Rhinos, Cheetahs, Parrots, Crested Cranes, Peacocks etc. E.g. buffaloes, Zebras and Antelopes from the Queen Elizabeth are hunted for food, Elephants are killed to provide Ivory in L. Mburo and Kibale, Lions and Leopards in Kidepo national park are killed for their precious hides and skins as well as cultural and Voodoo practices among witch doctors.
- Since security is an important and ideal atmosphere for any development, tourism in Uganda experiences insecurity / security conflicts which scare away the incoming tourists and end up in Kenya and Tanzania which are relatively stable. For example some local tourists from Jimmy Ssekasi institute of catering were killed in Murchison falls national park between 1999 and 2000 by LRA rebels scared off others, the 1971-1985 political instability prevented long term investment in the tourism industry. Many tourists' assets such as the Nile hotel, Imperial and others were used to serve as torture chambers. Many areas with tourists' attractions such as Rwenzori, Kidepo national parks, Mt Kei and Otze sanctuaries are insecure and tourists don't go there easily.
- The tourism industry in Uganda is also faced with a problem that most of the people living near tourist attractions like near Kidepo, Kibale, Bwindi, Karuma falls, Elgon and Rwenzori national park are low income earners therefore they look at tourism as a luxury and instead they spend their low incomes on the basic necessities like food, clothing, shelter, etc which leaves the industry less used by its own people and it depends on the foreign tourists (external tourists).
- The coming of tourists to Uganda from Europe and North America is unstable. In some seasons, the inflow is great and in others it is very limited. Therefore in some months, there are high costs of operation in the tourist industry like at the Entebbe wildlife centre and Murchison falls N.P. This has generally undermined comprehensive planning of the tourism industry hence an obstacle to its development.
- Some tourist gazetted areas are not visited due to the fact that they are in remote areas with poorly developed transport routes thus being inaccessible. Transport facilities leading to these tourist centres, such as the Ssese islands in Lake Victoria, Semliki national park on Western border, Kidepo in extreme north east, Bwindi impenetrable in terms of roads, railways, air and water routes, are poorly developed.
- Generally Uganda has inadequate skilled labour to handle and manage the tourism industry. This is evidenced by the poor quality services rendered to the tourists in game parks like Kidepo, L.Mburo and hotels like Speke Resort in Munyonyo, Ssese camping sites and other tourist centres which force them to go to other countries such as Kenya and Tanzania with better skilled personnel and good services. More on that the tour packages are also organized on low levels.
- The Ugandan government faces capital shortage to invest in the tourist facilities like roads, hotels, lodges, game parks and wildlife management centres on international standards. Many of the national parks such as the Kidepo valley,

Kigezi, Elgon, Rwenzori and Bwindi forest are in remote areas without an air strip for high class tourists. They also have poor tourist services, which has reduced the number of tourists to those areas.

- The tourism industry in Uganda is poorly advertised both internally and internationally which has made the tourists unaware of the existing parks like Bwindi, reserves like Toro and sanctuaries like Mt. Kei and their associated flora and fauna thus Uganda missing the revenue from the tourists because of its failure to publish what it can offer / provide.
- In Uganda, there are a number of diseases which scare away the tourists e.g. the waters of some lakes like Lake Mburo are contaminated with bilharzias, most of the game parks and reserves like Kidepo valley, Murchison falls, Mt. Rwenzori are infested with tsetse flies, malaria and the outbreak of epidemics like cholera in Kampala, Ebola in Gulu and the presence of AIDS, Marburg virus (Hemorrhage fever), etc all scares away tourists. These diseases have also claimed lives of many animal species in national parks e.g. in the Queen Elizabeth, many hippos died of anthrax in 2005.
- Changes in the economic trend in the countries where the tourists come from affects Uganda's tourism industry e.g. an economic depression (credit crunch) which started in 2008 up-to-2009 in Europe, USA and Asia has automatically affected the tourism sector in Uganda because it is where most tourists come from. Therefore few tourists are coming hence low foreign exchange earned.
- Poor hospitality in some areas with tourist attraction is an obstacle to development of tourism. For example some tribes in Uganda like the Karamajongs are hostile to strangers who scare away the tourists, local guides and game rangers. Even hostilities usually break up between the Karamajong warriors and the game wardens of Kidepo national Game Park and Bokora corridor game reserve usually resulting into loss of lives.
- Uganda is a land locked country which is cut off from the sea coast. As a result Uganda is out competed by Kenya and Tanzania which have a coast line because more tourists prefer coastal sceneries with better beaches, harbours and hotels and more so they reduce on the expenses to be incurred on transport to Uganda which has the same wildlife species with her neighbours.
- Uganda as a country is far and isolated from the potential tourists from Europe, Asia, North America and Australia where that in the end it receives fewer tourists hence low revenue.
- Most of the important tourist sites have been poorly maintained and even neglected due to factors ranging from political, social, cultural and economic like limited capital inaccessibility, cultural attachments, etc. E.g. Kasubi tombs in Kampala was maliciously burnt by unknown person in march 2010 while Bigobyamugenyi near Masaka, Omugabe's Palace in Mbarara and Samuel Baker's port in Gulu have been ignored by the government.
- The tourism industry of Uganda has also been faced with a problem of language barrier which has limited tourists from non - English speaking countries to come to Uganda as few local people can interact with them. For example tourists from China, Japan, Korea India and Spain face communication problems in Mweya safari lodge Queen Elizabeth and Elgon national parks because the local population does not speak Chinese, Japanese, Indian and Spanish languages.
- There have been also some cases of environmental pollution in some national parks which is a problem to the animal and plant life e.g. copper and cobalt mining at Kilembe near mountain Rwenzori national park as well as Limestone mining at Hima in Queen Elizabeth have polluted water, land and atmosphere which is harmful to game life leading to their death.
- Fire out breaks destroy tourist attractions both the fauna and the flora. Forest fires destroy all the vegetation cover including the wild animals in that forest reserve. For example Aber and Opit forests near Gulu in 1982 as well as Mount Mgahinga in Kabale in July 2009 were destroyed by fires clearing the wildlife habitat.
- Some national parks and game reserves in Uganda face the problem of soil erosion due to the existence of a large number of animals resulting into congestion. These animals will feed on grass, trees and their leaves thus over grazing hence exposing the soils to the agents e.g. erosion like running water and wind. In a course of the time, the area is turning into a desert like L. Mburo N.P with many grazing antelopes.
- The local natives are non-interested and non-appreciative of tourist attractions. Wildlife is seen as a danger to the local people and much of wild life is destroyed. For example Leopards, Hyenas and lions from Queen Elizabeth national park are poisoned and killed by hunters and farmers. Stray gorillas and chimps from Bwindi and Mgahinga forest reserves are usually killed by the Bakiga because they destroy their crops.

SOLUTIONS TO SOLVE THE ABOVE TOURISM PROBLEMS

The following are the measures being taken solve the problems facing the tourism industry or the measures taken to develop the industry:

- The government of Uganda is acquiring capital through borrowing internally from Bank of Uganda and externally from World Bank, IMF and donor countries like USA, UK and others to set up tourist facilities such as play grounds like Mandela stadium funded by China, roads like Entebbe and Ggaba roads, hotels like Serena and Speke Resort Munyonyo and air strips like Entebbe international air port. This is because these facilities are also tourist attractions themselves.
- There is eradication of poaching and uncontrolled game cropping through establishment of strong anti -poaching laws, regular patrol by a well equipped anti poaching squad in national parks and reserves such as Kidepo, L.Mburo and Queen Elizabeth national park of mainly elephants and antelopes. This has ensured that the population of animals multiplies hence attracting more tourists.
- The government is diversifying for other economic activities avoid problem of seasonality of the tourism industry. For example it has embarked on Cobalt recycling at Kasese and tourism in Queen Elizabeth; forestry, oil mining and tourism in Semliki valley, etc to ensure economic diversity.
- Training and retraining of workers in the tourism industry is being done to improve on the skills of the tourist attendants hence better services for the tourists. For example tourism courses are offered at Makerere University, Institute of tourism in Jinja and hotels such as Serena, Africana and Sheraton also equip their staff in customer care services for quality tourist services.
- Spraying of national parks and game reserves is being undertaken by pest control department on behalf of UWA in order to eradicate pests such as tsetse flies in infested parks like Murchison, South Busoga forests and L.Mburo which cause nagana to wild animals like elephants, zebras and antelope families.
- There is construction of pipes to direct pollutants under ground from Kasese cobalt factory and Hima cement factory in order to solve the problem of environmental pollution in Rwenzori and Queen Elizabeth N.Ps instead of being pushed in the atmosphere.
- Uganda wildlife Authority is educating people the values of wildlife conservation and preservation as well as hospitality among the people through seminars, workshops and mass media organized near game parks like Bwindi, Rwenzori, Mbarara near L. Mburo, Kidepo national park and Entebbe wildlife centre. This is because the success of tourism partly depends upon the moral, spiritual and economic support of the people.
- The government is ensuring a stable political climate which is conducive for tourists. This has been through promoting democracy and training and creation of a strong army, police force and local defense personnel. E.g. the UPDF is restoring security in Kasese through fighting the ADF rebels in Rwenzori and Mgahinga national parks, in the north Kony (LRA) have been wiped out from most areas like Pader, Kitgum, Kilak, Otze and Mt.Kei sanctuaries making them now accessible and Karamojong warriors have been disarmed for accessibility to Bokora Koridor game reserve and Kidepo valley.
- The Uganda tourism board and UWA is intensifying and increasing the level of advertisement both locally and internationally. It prints brochures, T-shirts, magazines and stickers to be used for advertisement. Local wildlife films are broadcasted on local like UBC and international television channels such as the Cable News Network (CNN), Skynet, and Discovery channel so as to attract more tourists.
- The government is attracting private investment both local and foreign to put up and manage tourist facilities such as Hotels, Lodges, Restaurants and others through sounding economic policies like tax concessions, holiday, loans etc. For example the Mweya safari lodge has been taken over by foreigners for better management, Nile hotel was taken over by Serena hotels for better management and handling of tourists during the CHOGM summit, Speke resort Munyonyo is co owned by the government and Sudhir, etc.
- The Ugandan government is promoting through adverts the country as a destination for bird viewing at L. Mburo and on Ssese islands since it is rich in bird species, water rafting along Victoria Nile and sport fishing on L. Victoria beaches

like in Entebbe Wildlife centres. These and other tourist attractions have been of interest to special groups of tourists like the ecologists and the botanists.

- Ministry of transport and communication is improving accessibility to areas of tourist attractions. Kampala – Masaka - Mbarara road and Kampala – Kasese – Fort Portal road are always upgraded to maintain access to L. Mburo and Queen Elizabeth national parks. An air strip was constructed in Kasese to transport tourists in the area to Mt. Rwenzori and Rwenzori national park, another at Jinja to create access to Bujagali falls and the source of the Nile and Entebbe airport has been upgraded to international standards.
- Uganda's government is waiving the visa requirements for foreign visitors from over 30 countries such as India, China, Sweden, Denmark, UK, USA, Canada, etc which are the major tourist market source so as to increase on the number of tourists in the Kidepo, Bwindi, Elgon, Queen Elizabeth, and other gazetted areas which in turn has increased on the foreign exchange.
- Uganda wildlife Authority is preventing settlement and agricultural encroachment in the game parks and reserves. For example the Bakiga who settled in the Kibale forest reserve have been resettled elsewhere and the area is now gazetted as a National park, the encroachment on Mt. Elgon National park in Bududa was followed by eviction done by Uganda Wildlife Authority, cattle keepers from Buliisa stopped from invading on Murchison falls N.P, ...
- The government of Uganda through Uganda wildlife Authority (UWA) is encouraging local Ugandans to visit the tourist attractions throughout the year. This is done through giving them subsidies such as less payment on entry to game parks and wildlife centres like Entebbe wildlife centre so as to increase on the number of tourists in times when the foreigners are not here.
- The government is privatizing former state hotels such as Nile hotel, Grand imperial hotel and Equatorial hotel for better management of tourist accommodation. Private tour and travel companies for tourists have also come up to transport tourists at attractive and negotiable prices such as Rwenzori tour and travel in Kampala, Uganda Safari Company, Back packers in Kampala and many others.
- The ministry of tourism and ministry of Education through UWA is setting up wildlife clubs in schools and Universities such as Makerere, Mbarara, Uganda Martyrs and Nkumba universities as well as wildlife education centres at Entebbe to increase wildlife conservation awareness among youngsters.
- Many foreign languages are now being taught in schools, colleges and higher institutes of learning like Makerere and Kyambogo Universities e.g. German, French, Latin, Kiswahili, Chinese, Spanish, Japanese, etc so as to produce translators and tour guides who can deal with tourists from non English speaking countries such as Japan, Korea, India, China, France,...
- Modern accommodation facilities in form of lodges are being established in game parks. For example Uganda Safari Company runs the Semliki lodge in Semliki valley, Apoka lodge in Kidepo valley N .Park, Clouds lodge in Bwindi impenetrable forest N.P, Land mark in Soroti and Kampala and Triangle hotel in Kampala.
- Game hunting sports have been adopted to attract tourists. For example the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) granted the Uganda Wildlife Authority permission to allow tourists hunt Leopards. A maximum of 28 leopards are killed annually. Each trophy hunter (tourist) pays US \$ 50,000 (83 M) per leopard killed.
- Uganda wildlife Authority and the parliament have gazetted more National parks and game reserves so as to increase the number of parks and game reserves. For example they recently gazetted Mgahinga for Chimps, Kibale and Rwenzori as N.Ps as a positive attitude and policy towards the conservation of wildlife which are the tourist attractions.
- Uganda wildlife Authority (UWA) is driving stray animals like elephants in Luwero, Kibale and Nakasongola back to game reserves and National parks. Endangered animal species are kept at Entebbe wildlife centre and given treatment. And of recent in April 2009, UWA bought two lionesses which kept at Entebbe centre for multiplication with a lion there.
- The government is creating a number of bodies related to tourism e.g. Uganda Tourism board , Uganda wildlife authority, NEMA, NFA, etc to ensure the smooth running of the industry as well as effective conservation and preservation of wildlife.

Sample Questions:

1. To what extent is it justifiable to allocate such large land areas to National parks and Wildlife reserves in Uganda?
2. Discuss the contribution of game parks and game reserves to the economic development of Uganda
3. Giving specific examples, discuss the obstacles, which have hindered the development of the tourism industry in Uganda.
4. Explain the measures being taken to address the tourism obstacles.
5. "Uganda's tourist industry is not only based on tourist attractions"
Discuss.
6. To what extent have physical factors led to the development of the tourism industry in Uganda?
7. "Uganda's paradise combines all the most understanding attractions of the great African continent" (Source: welcome to Uganda: the land of sunshine! Tours and travel Ltd). With reference to specific examples, justify this statement.
8. To what extent has wildlife provided a basis for the tourism Industry?
9. To what extent has scenic beauty favoured the development of the tourism industry in Uganda?
10. Assess the impact of wildlife conservation to the economy of uganda

Sample Approach:

Candidates are expected to;

- Define the key word (s) in the question.
- Cite out the status / stand/ situation (+ve / -ve) of the major sector.
- Identify, describe and locate of the sub – sectors of the major sector in Uganda.
- Draw a sketch map showing the sub – sectors of the major sector with name of places.
- State, explain and then illustrate the how far (the extent to which) are the physical factors responsible for in relation to the sub – sectors of the major sector.
- Finally state, explain and then illustrate the however side of the other factors responsible for in relation to the sub – sectors of the major sector in Uganda besides physical factors.

OR

- State, explain and then illustrate the points (both positive and negative contribution / physical and human factors) in relation to the sub – sectors of the major sector in Uganda

TRANSPORT AND COMMUNICATION IN UGANDA

Transport refers to the process whereby passengers and goods are moved or carried from one place to another, while communication is the process of moving information or message from one place to another.

The elements that make up transport and communication are; mass media i.e. radios, television sets, news papers, telegrams, magazines, telephones, a fax machines, etc; postal services involving sending information, messages, parcels, letters, etc; and major types of transport like roads, railways, air and water transport.

GENERAL STATUS OF TRANSPORT AND COMMUNICATION

The following is general status of transport and communication sector in Uganda;

~ Distribution of transport routes in Uganda is uneven. Some areas like Buganda in Kampala and Busoga in Jinja have many while others like Kotido and Pakwach have a few.

Air transport:

- ~ Entebbe airport is the major and the only international air port in Uganda.
- ~ Entebbe airport is under management of Civil Aviation Authority. There are some small air strips such as Kimaka air strip at Jinja, Kololo air strip in Kampala, Kasese air strip, Arua, Moroto, Tororo, Pakwach air strips, Mbarara, Kanungu and many others.
- ~ Air transport is poorly developed with Uganda having no national airline.
- ~ Airline industry is dominated by foreign air companies such as Kenya airways, British airways, Brussels airways, Emirates air, Egypt air, Ethiopian airline, Air Rwanda, etc.
- ~ Air transport is characterized by low traffic and few internal and international flights.
- ~ Air transport has only one an aero - pilot training school in Soroti.
- ~ Constructional plans are underway to expand Entebbe international airport in Wakiso.
- ~ Plans are also underway to reinstate the National airline in partnership with Chinese government.

Water transport:

- ~ Port bell in Kampala and Jinja port are the main water ports on the L. Victoria to Kenya and Tanzania.
- ~ Lake Victoria is the most important inland water transport route and shared by Uganda, Kenya and Tanzania.
- ~ Most water transport takes place on lakes and few rivers.
- ~ Water transport is poorly developed with mainly use of canoes on L. Kyoga and Albert.
- ~ Water transport carries considerably a small number of passengers.
- ~ Water transport is mostly used by peasants such as fishermen on L Victoria in Kalangala.
- ~ There are very few modern vessels such as ships and steamers and they belong to the government like MV Kalangala ship at Kigungu in Entebbe and MV Pearl ferry at Bukakata in Masaka on L. Victoria.
- ~ Water transport is characterized by poorly equipped port facilities such as Port bell in Kampala and Jinja on L. Victoria, Masindi on Victoria Nile and Butiaba in Buliisa on L. Albert, etc.
- ~ Water accidents are still very common mainly on L. Victoria and L. Albert.
- ~ Most of the water transport operations are mainly done by private owners of boats.
- ~ Water transport is the cheapest mode of transport.

Road transport:

- ~ Uganda has many roads distributed throughout Uganda.
- ~ Road transport is the most dominant, important and developed type of transport in Uganda with 99% passenger traffic and 90% of Cargo.
- ~ Trunk (tarmac) roads and of high quality are constructed and maintained by the Ministry of works transport and communication under Uganda National Road Authority such as Kampala - Bombo road and Jinja – Iganga road.
- ~ Rural feeder roads are constructed and maintained by the local government at LC 3 and 5.

- ~ Public movement on roads under private individuals such as UTODA (Uganda Taxi Operators and Drivers Association) in Kampala and Wakiso as well as Pioneer bus co. in Kampala city.
- ~ Many of the Murram roads have been up graded to tarmac roads like Soroti – Lira road and Katosi – Mukono road.
- ~ Many of the roads that were under local government have been taken over by the central government under UNRA like in Kampala city.
- ~ Rehabilitation of major high ways is being done like Kampala-Masaka - Mbarara high way and Kampala – Hoima road.
- ~ Almost all the major roads in Uganda originate and radiate from Kampala outwards in all directions like Gulu, Jinja, Kabale, Port Portal, Entebbe roads, etc.
- ~ A Great North road passes Uganda from South Sudan through Nimule to Gulu to Soroti to Mbale and to Kenya through Tororo.
- ~ Major highways are complete and others under construction such as Northern Bypass, Kampala – Entebbe expressway, etc.
- ~ There is a rapid increase in vehicle and motorcycle population.
- ~ New bridge across the Victoria Nile was complete and named the Source of Nile Bridge.

Rail transport:

- ~ Most of the major rail routes are no longer operational except the Tororo - Kampala and Kampala - Port Bell route.
- ~ Railway transport is the cheapest means for bulk transportation.
- ~ At the moment railway transport operates at its minimum handling between 30% and 40% of Uganda's bulky cargo to and from Mombasa and Dar es Salaam port.
- ~ Since 2006, the passenger train was non operational in other parts of Uganda except in Kampala to Namboole Stadium.
- ~ The railway transport is now under the management of the Uganda Railways corporation
- ~ The western route from Kampala - Kasese is no longer functioning.
- ~ Plans are underway to construct the Standard Gauge Railway to connect to Kenya
- ~ In 2007, railway transport was transporting approximately 70 containers of cargo from Mombasa far below the daily capacity of 160 containers.

DISTRIBUTION OF TRANSPORT ROUTES IN UGANDA

The distribution of transport routes in Uganda is;

Roads are distributed throughout the country and these are;

- ~ Kampala - Jinja – Tororo – Mbale - Soroti – Moroto road,
- ~ Kampala – Masaka – Mbarara – Kabale - Kisoro road,
- ~ Kampala - Kigumba - Lira – Kitgum road,
- ~ Kampala – Nakasongola – Kamdini - Gulu - Moyo road,
- ~ Kabarole - Kasese - Bushenyi – Mbarara road,
- ~ Kampala – Kiboga – Hoima road, etc.

The railway network routes are;

- ~ Eastern lines consist of Tororo – Iganga - Jinja - Kampala rail line and Jinja - Kamuli routes
- ~ Northern line consists of Tororo – Soroti and Soroti - Lira - Gulu - Pakwach route.
- ~ Western line consists of Kampala - Kasese route.
- ~ Central line consists of Kampala – Port Bell route.

Uganda has a number of domestic airfields with number of internal and international flight routes in Uganda and these are;

Domestic air transport routes are;

- ~ Entebbe – Gulu - Arua – Moyo route,

- ~ Entebbe - Mbarara – Kasese route,
- ~ Entebbe – Soroti route,
- ~ Entebbe – Lira route, etc.

The major international flights are;

- ~ Entebbe - Dubai - Jeddah – Sharjah flight,
- ~ Entebbe – Nairobi – Mombasa flight,
- ~ Entebbe - Addis Ababa flight,
- ~ Entebbe – Brussels - Cologne - London – Rome flight,
- ~ Entebbe – Juba – Cairo flight,
- ~ Entebbe – Mwanza – Arusha – Dar-es-Salaam - Johannesburg flight,
- ~ Entebbe – Kigali – Bujumbura flight, etc.

Water transport routes in Uganda are:

On Lake Victoria are;

- ~ Portbell – Bukoba,
- ~ Portbell - Jinja – Buvuma,
- ~ Nakiwogo / Entebbe – Kalangala (Ssesse islands),
- ~ Lambu - Buvuma islands,
- ~ Portbell - Kisumu - Musoma - Mwanza via Lake Victoria, etc.

On Lake George and Edward are;

- ~ Kazinga Channel - Rwenshama – Katwe in Kasese,
- ~ Kasenyi – Katwe in Kasese,
- ~ Rwenshama in Rukungiri - Kavirionye in DR.Congo, etc.

On Lake Albert transport routes are;

- ~ Butiaba – Wanseko in Buliisa,
- ~ Butiaba in Buliisa – Muhangi in DR.Congo,
- ~ Ntoroko in Ntoroko - Kasenyi in DR.Congo, etc.

On Lake Kyoga are;

- ~ Lwampanga in Nakasongola – Galiraya in Kayunga,
- ~ Lwampanga – Nabyeso in Apac,
- ~ Kachung - Kagwara in Serere, etc.

Victoria and Albert Nile have transport routes such as;

- ~ Mahagi – Pakwach in Nebbi – Nimule along Albert Nile,
- ~ Masindi port along Victoria Nile - Lwampanga on Lake Kyoga,
- ~ Obongi – Lorapi along Albert Nile in Moyo,
- ~ Pakuba – Pakwach along Albert Nile in Nebbi, etc.

SKETCH MAP OF UGANDA SHOWING DISTRIBUTION OF TRANSPORT ROUTES

FULL PAGE FOR A MAP

FACTORS RESPONSIBLE FOR THE DISTRIBUTION OF TRANSPORT ROUTES IN UGANDA

From the sketch map drawn, it is observed that the south half of Uganda has more developed transport routes than the northern part and this is attributed to several factors as discussed below which are historical, physical and economical:

Physical factors:

- Relief has influenced the development of transport routes in that gentle slopes and relative flatlands make the construction of roads, railway routes and others easy like Buganda undulating low lying hills in Kampala and Wakiso have facilitated development of roads and railways such as Kampala - Bombo road and Kampala – Luzira railway.

While on the other hand, with steeper slopes, fault scarps and high lands make the development of transport routes complicated like Sebei steep relief in Kapchorwa have few and poorly developed roads and railway lines.

- Drainage has also influenced the development of transport routes in that areas with rivers, swamps and lakes such as Lake Kyoga basin in Serere make the development of roads and railways expensive and difficult because of the poor and impeded drainage as involves construction of bridges, use of hard core stones and a lot of laterite soils.

And the rapidly flowing rivers like Victoria Nile in Jinja have hindered the development of inland water transport.

While the reverse is true with well drained areas and large lakes and rivers, the development of inland water transport and other routes have been possible like Port Bell – Katosi water route on Lake Victoria.

- Climate is also a major factor responsible for the distribution of transport routes in that murram roads are mainly damaged by too much rainfall making it hard to construct and maintain them during the rainy seasons like the poorly developed transport network and even few roads in Kisoro and Kabale are because of heavy rainfall as the running water usually washes away the murram soils and to create potholes in the roads and landslides usually block the Kisoro - Rubanda road and other feeder roads.

While the reverse is true with areas of little and moderate rainfall in Kaabong with Kaabong – Moroto road , Gulu with Gulu – Kitgum murram road.

- Pests and diseases are also responsible for the distribution of transport routes in that areas infested with tsetse flies like Hoima and Masindi and Bugiri and Mayuge generally have few transport network systems because for a long time, being a danger to the lives of people as they cause sleeping sickness as well as livestock with nagana.

While the reverse is true with pest - free areas like Kampala with Kampala – Masaka road and Jinja with Jinja – Kamuli road.

- Vegetation is also a major factor responsible for the distribution of transport routes in that areas with thick forests such as South Busoga (Bunya) forests in Maguye and papyrus swamps on Lake Kyoga shores in Kayunge make the development of roads, railways, water and air strips expensive and difficult because it involves clearance of the vegetation, use of hard core stones and a lot of laterite soils thus such areas have few or no transport routes.

While the reverse is true wood and grasslands like Kampala – Wakiso road and Tororo – Mbale road.

Historical factors:

- During the colonialism, British government influenced the development of transport routes in that roads were constructed in the established territories connecting the areas of the administrative centres like territories of Buganda in Kampala such as Kampala - Jinja road

While other areas like Kotido had limited road infrastructures because the colonialists never settled there first and never had administrative work there.

- Kingship system influenced the development of transport routes whereby areas with well organized monarchy leaderships developed important roads and bridges across rivers by the use of mobilized labour headed by the local chiefs and kings like Buganda government at Mengo in Kampala had the Kabaka constructed the Old Mengo - Old Kampala road to link to the palace at Mengo.

While on the other hand, areas without organized, strong and clear leaderships developed a few or limited transport routes like West Nile in Moyo and Karamoja in Moroto.

- Arab influence is also responsible for the development of transport routes whereby areas with early contacts of the Arabs from both the East African coast and Egypt helped in the development of roads which the caravans used when trading from Bagamoyo at the Tanzania coast into the interior regions of Buganda in Kampala and Busoga in Jinja and even also Arab slave traders and Merchandise traders from Malindi and Mombasa used that road route via Malaba and Busia.

While the reverse is true with Kotido that had no contacts.

- The coming of missionaries influenced the distribution of transport routes in that they opened up various roads which were used to spread religion, carry out monetary trade and abolish slavery like White fathers occupied Busoga in Jinja – Iganga road, Buganda in Kampala – Masaka road and Teso in Mbale – Soroti road.

While areas like Pakwach in Nebbi and Karamoja in Kaabong where they never occupied, had no chance to be allocated with improved transport routes.

Economic factors:

In Uganda today transport routes have been constructed to link areas with natural resources and probably finished goods to areas of consumption or need. The following are considered:

- Industrialization has influenced the distribution of transport routes in that most industrial centres have developed roads and railway transport routes linking them to the market for the finished products and to the areas where raw materials are like in Jinja, there are the Jinja - Masese road and Jinja port – Kisumu water route which were constructed to ease movements of labour, machinery, finished goods, and raw materials within the area.

While the reverse is true with less industrialized areas like Kitgum.

- Tourist potentials have influenced the distribution of transport routes in that areas with tourist attractions have promoted the development of transport routes like water transport on L. Victoria with Port Bell - Ssese islands and Kampala – Kasese road and Entebbe - Kasese air route were set up to access to Queen Elizabeth National parks and Mt. Rwenzori in Kasese.

While the reverse is true with areas of limited tourist potentials like Abim.

- Agricultural resources have influenced the distribution of transport routes in that areas with food resources or agricultural products and fertile soils have facilitated the development of transport routes like the railway line extension of Jinja – Mbale – Lira – Gulu – Pakwach was to ease the marketing of coffee, cotton, maize, millet, simsim and tobacco from Mbale, Soroti, Gulu, Lira and Nebbi.

While few roads were established in the Karamoja pastoral areas of Kotido and Moroto because these areas reared livestock for subsistence purposes as well as were infertile.

- Water resources have influenced the distribution of transport routes in that areas with lakes and rivers facilitated the development of water transport routes within the lake shore lines like Port bell – Kalangala water route on L. Victoria developed as a major internal port to handle sand, fish and timber from Ssese islands and others.

While the reverse is true with lakes and rivers of limited resources like Moroto.

- Mineral deposits have influenced the distribution of transport routes in that railways and roads have also been constructed in areas with mineral resources to link the market and processing centres like the extension of the Kampala – Kasese railway line was mainly due to copper mining at Kilembe so as to be transported copper to Jinja for smelting.

While the reverse is true with areas of few and limited mineral resources like Kitgum.

- Government policy is also a major factor responsible for the distribution of transport routes in that government has embarked on constructing transport routes through UNRA so as to stimulate economic growth and to provide an equal opportunity economic development like Masindi – Buliisa road due to oil deposit exploration.

While there are few roads are being developed and constructed in remote areas of Yumbe and Kitgum due to few economic opportunities.

- Forest resources have influenced the distribution of transport routes in that areas with timber resources have also been linked to by transport routes to facilitate the development of forestry like Budongo forests in Masindi have been exploited by set up of Kampala - Masindi road route.

While the reverse is true with areas of limited timber resources like Sembabule.

- Fisheries have influenced the distribution of transport routes in that areas with fishery resources have also been linked to by transport routes to facilitate the development of fishing sector like the fisheries of L. Victoria is linked by water routes from Ssese islands - Buvuma to Masese – Jinja road, etc for ferrying smoked and fresh fish.

While the reverse is true with areas with limited fishery resources like Ntoroko.

ROLE OF TRANSPORT ROUTES IN THE ECONOMIC DEVELOPMENT OF UGANDA

Generally the transport sector has played a crucial role in the economic development of Uganda in the following ways;

Positive importance

- Transport routes has facilitated both import and export trade (external trade) within Uganda through distributing and marketing goods which eventually brings in foreign exchange like coffee from Bushenyi is collected and then transported to Mombasa by Kampala - Mombasa road for export, similarly, heavy industrial machinery and petroleum products are transported by Kenya - Uganda railway line and Tororo - Jinja - Kampala road.
- It has promoted industrial growth through accessibility to essential raw materials and finished goods e.g. Water transport on Lake Victoria transports cotton seeds as raw materials from Bukoba port - Port bell in Kampala.
- Transport routes have facilitated the agricultural modernization due to easy distributing and marketing produce and farm inputs for increased production e.g. the Kampala - Mbarara road markets bananas and milk from Masaka, Mbarara and Bushenyi.
- Transport routes have facilitated domestic trade (internal trade) by linking the producers to the consumers leading to local revenue. For example industrial manufactured goods from Kampala and Jinja are transported to Kasese and Kabarole by Kasese – Kampala road.
- Transport routes have facilitated the exploitation of forest resources by accessing forests for felling and production of timber in remote areas. For example timber from Budongo forests in Masindi is being exploited using Masindi - Kampala road
- Transport routes have facilitated the development of mining activities by accessing minerals for extraction and processing like Limestone in Tororo is mined and transported to Kampala along Tororo - Kampala road.
- Transport routes have stimulated the growth of urban centers, ports and landing sites due to increased working population for socio – economic services like education, health services, banking services, security as well as trade and commerce. For example Wandegaya suburb, Makerere University and Mulago Referral hospital in Kampala are located along Kampala -Bombo road due to skilled manpower.
- Transport routes have promoted regional understanding as communities / people of different localities interact with each other through the spread of new ideas and technology. E.g. many schools are along Kampala – Mpigi - Masaka - Mbarara road such as Trinity College Nabingo, St. Lawrence Citizens' high School, King's College Buddo, Masaka Secondary school, St. Charles Kasasa and many others due to easy accessibility for educational skills.
- Transport has promoted tourism along water bodies, roads and by air by easily accessing tourist attractions in their localities for pleasure and curiosity. E.g. on Lake Victoria, boats and ships carry tourists via PortBell - Ssese Islands in Kalangala to watch wild life and enjoy Lake breezes.
- Transport routes have promoted international mutual understanding and cooperation between Uganda and her neighbours particularly Kenya and Tanzania and Rwanda due to link ups for foreign assistance and trade. E.g. Port Bell – Kisumu water route on L.Victoria, the Mombasa – Kisumu – Tororo rail route and Mombasa – Nairobi – Tororo road between Uganda and Kenya.
- Transport sector has created employment opportunities to the local people through transport operations which make them to earn income leading to improved standards of living like captains, along Nakiwogo - Kalangala water route on L. Victoria.

- Transport sector has generated revenue to government through levying taxes and issuing operating licenses resulting into setting up socio – economic infrastructures like Pioneer buses on Kampala – Port Bell road and Friendship taxis on Kampala – Entebbe road.
- Transport sector has earned foreign exchange to Ugandan government through incoming foreign goods and custom duties leading to provision of socio – economic services like via Nairobi - Malaba and Busia road points from Kenya and via UAE - Entebbe international air route from China and Japan.
- Transport sector has encouraged diversification of Uganda's economy rather than reliance on agriculture only for more jobs and revenue like at Malaba and Busia border along Nairobi – Kampala road and Kasenyi - Kalangala water route in Entebbe on L. Victoria.
- Transport sector has led to opening up of remote areas by linking them up urban areas for development of trade and commerce like Ssesse Islands in Kalangala on L. Victoria using Port Bell - Kalangala water route to Kampala city.
- Transport routes have helped in labour mobility from one area to another leading to provision of cheap skilled and semi skilled man power in different sectors leading to increased efficiency like Jinja – Kampala road from Mukono to Nakawa industrial area.
- Transport routes have led to the development of research and technological advancement by importing computer technology and vehicles leading to increased productivity and efficiency like smart phones and computers via U.S.A and China - Entebbe international air route.
- Transport routes have stimulated building and construction sector through constructing transport routes leading to infrastructural development like Ziwa construction on Kibuye – Nateete road, and Egyptian ship co. in Jinja for Masese – Buvuma Islands water way on L. Victoria.
- Transport routes have led to growth of roadside businesses like floriculture, petroleum stations, welding, washing bays, lodges, motor garages and food markets which have created more job opportunities to locals resulting into more incomes like Bwayise motor garages and Kawempe market in Kampala along Kampala – Bombo road.

Negative importance

- Transport routes have led to displacement of people due to construction and expansion from their land with little or no compensation leading to poor standards of living and homeless like Kampala Northern by-pass road at Bweyogerere, Bwayise and Kawaala in Kampala.
- Transport routes have led to cutting down of some parts of forests during construction and expansion leading to reduced rainfall / desertification like construction of Kampala - Jinja road led to clearance of part of Mabira forest in Buyikwe.
- Transport routes have led to high Government expenditure as construction and maintenance is costly and expensive resulting into strain on the National budget. For example a Kilometre tarmac road from Kibuye to Nateete road in Kampala was worth 1.5 billion shs.
- Transport routes have led to flooding due to use of tarmac in road construction leading to death of some people and slow down in traffic causing delays during the rainy season like Kampala Northern by-pass has increased flooding at Bwaise and Kalerwe in Kampala.
- Transport routes have led to destruction of wetlands and habitat for wild animals during construction and expansion leading to ecological problems and death of wild game like Kampala - Masaka road led to destruction of Busega in Kampala and Nabuguzi wetlands in Masaka.
- Transport routes are associated with atmospheric pollution in form of air, noise, land, dust and water due to smoke from locomotives, sound from automobiles, oil spills and motor scraps, loose surface and murram roads leading to acidic rains, global warming, hearing defects, low soil productivity, respiratory diseases and death to aquatic life. For example Nabagereka loose surface road in Entebbe with dust whenever vehicles use it.

- Transport routes are associated with accidents due to careless driving and dangerous mechanical conditions which have led to loss of lives and property or permanent impairment like along Kampala - Jinja road, accidents are common in Buyikwe.
- Transport routes have led to the spread of urban associated social evils due to over population and high rate of unemployment leading to insecurity such as prostitution, robbery, slum development, congestion and immorality like on Nakiwogo – Ssese Islands water routes on L. Victoria and at Bwayise along Kampala – Bombo road in Kampala.
- Transport facilities has facilitated smuggling of valuable goods to her neighbouring countries of Kenya, T.Z and DRC as well as overseas leading to loss of revenue got from taxes like fish, sand and timber are smuggled to Tanzania and Kenya through Ssese Islands - Port Bukoba and Kisumu port on Lake Victoria in Kalangala.
- Transport routes have led to regional imbalance due to their over concentration in certain areas than others resulting into backwardness and less development like Kampala with Port Bell – Buvuma Islands water route, than Kayunge and Nakasongola with less.

ROAD AND RAILWAY TRANSPORT SECTOR

PROBLEMS FACING THE DEVELOPMENT OF ROAD AND RAILWAY TRANSPORT

The problems limiting the development of road and railway transport in Uganda are;

- There is inadequate capital which has led to low investment in construction and maintenance of various transport routes and facilities. For example the cost of constructing a kilometer of tarmac road is high resulting into slow down in completion of Entebbe - Kampala Expressway.
- There is irrelevant local technology used in the construction and maintenance of transport routes which has led to the poor quality transport network and use of expensive foreign technology from foreign companies from China, Yugoslavia and Nigeria like Kampala - Jinja road.
- There is inadequate knowledge and educational skills / limited skilled labour about construction of standard roads and railway lines which has resulted into short lasting roads and railway lines as well as poor maintenance and repairment of railway engines and traffic lights like Kampala – Port Bell rail line.
- There are political insurgences, insecurities and conflicts which have prevented the application of long term planning and investment as well as leading to destruction of existence of transport routes. For example the LRA rebel activities from 1986 – 2006 paralyzed the Kumi - Lira - Gulu - Pakwach rail line and maintenance of Gulu – Lira - Soroti road.
- There are thick papyrus and forests that have made development of roads and railways lines costly and expensive leading to remoteness like Kampala – Entebbe Expressway has been constructed through Busega swamps with soft landscape and thick papyrus.
- There was the collapse of East African railway cooperation which reduced Uganda's ability to maintain railway transport as she was benefiting from the unified railway transport system because there were lower costs of maintenance, experienced engineers, and adequate wagons for transport purposes within East Africa via Mombasa – Tororo rail line.
- There is negative attitude by the local people and negligent by the previous regimes towards construction and rehabilitation transport routes which has led to low investment and poor maintenance like Soroti - Moroto – Kaabong road is in murram nature than tarmac as well as Kampala – Kasese rail line due to negligence by the NRA and NRM governments.
- There are steep slopes in the highland regions which have hindered the development of roads and railway lines as it's too expensive and costly to construct a road and practically impossible to construct a railway like Kabale - Katuna road in Kabale and Kasese – Fort Portal railway in Kasese were very hard and expensive because of the of Kigezi and Rwenzori steep slopes respectively.
- There are very heavy rains accompanied by high rate of erosion and flooding have led to destruction of roads and railways. For example heavy rainfalls with flooding destroy and block Mbale – Soroti road and Kampala – Luzira road.

- There are poorly drained and impeded drainage areas along river banks, lakeshores and swamps that have made development of roads and railways difficult and costly e.g. areas around L. Kyoga have few transport routes like Kayunga – Mukono road and Lwampanga – Nakasongola road.
- There are pests and diseases which have also hindered the development of the transport sector leading to inaccessibility like Masindi - Hoima road is poor state partly because the area is infested with tsetse flies.
- There is limited local cooperation in some areas which has limited construction and renovation of the roads and railways. For example Kaabong – Moroto road constructions is threatened by hostilities from the Karamajong warriors, theft and vandalisation of Kampala - Nalukolongo railway slippers in Kampala have limited railway transport.
- There are limited relevant spare parts of transport vessels for repairing and modifications like cars, lorries, buses, rail wagons and others. For example, the defunct Uganda Transport Company (UTC) failed to operate efficiently due to lack of spare parts to maintain the buses which later led to closure of the company.
- There is continuous embezzlement and mismanagement of government funds and public transport services which has limited development of road and railway transport. For example Mukono – Katosi road delayed in construction because of corruption and embezzlement of funds by Ministry officials
- There are constantly rising fuel costs which have limited use of road and railway transport leading to exploitation of passengers. E.g. drivers on Kampala - Jinja road and Kampala - Masaka - Mbarara road almost charge any transport fares depending on the fuel costs.
- There is massive bribery cases by the traffic police and forgery of driving licenses in URA departments which has led to careless driving and an increase in road accidents on Kampala – Jinja road and Kampala - Masaka road.
- There is shortage of genuine materials like presence of counterfeit bitumen on the market used in road construction which has led to poor road construction and short lived roads like Kampala – Fort Portal road, Kampala – Masaka road and many others.
- There was closure of the Kilembe copper mines which left little economic activities to be transported along the western Kampala - Kasese rail line and also decline of cotton production due to closure of the Lira spinning mill left the northern Jinja – Soroti – Lira – Gulu - Pakwach rail route idle which has limited effective use of railway transport.
- Railway transport is suffering from stiff competition of faster, convenient, reliable and more flexible means of transport especially road which has retarded its development like many traders of Kampala and Jinja prefer using the Mombasa - Kampala road other than the slow and inconvenient Mombasa - Kampala railway line.

STEPS BEING TAKEN TO DEVELOP ROAD AND RAILWAY TRANSPORT

The following are the measures being taken to develop road and railway transport in Uganda;

- The Ministry of Works, Transport and Communication under Uganda National Roads Authority (UNRA) is constructing more roads as well as maintaining the existing ones like gravel roads have been upgraded to tarmac such as Soroti – Lira road and Tororo - Mbale by UNRA as well as a Standard Gauge Railway is underway.
- The government is constructing more sub - roads, by - passes and high - ways to reduce traffic and remoteness like Kampala – Entebbe high ways, Kampala Northern by-pass road from Bweyogerere to Busega and others.
- The government is attracting foreign firms to invest in the transport network construction so as to improve the quality and durability like Energo project from Yugoslavia has constructed Kampala – Gayaza and Reynolds construction Ltd from Nigeria is constructing Kampala - Masaka – Mbarara road.
- The Ministry of Works is widening truck roads especially along black spots of road corners to reduce on road accidents like along Kampala - Jinja road in Mabira forests, Kampala - Masaka road in Lwera swamp, etc.
- The government is encouraging local construction companies into road construction to reduce on traffic jam like Zzimwe Construction Company was tendered to construct Kampala – Nateete sub road in Kampala.
- The government is privatizing and liberalising the transport industry through selling government transport companies such as Uganda Transport Company to encourage private bus companies such as Link, Trinity and Global coaches that run the bus business along Kampala – Kabale road and Kampala – Kasese road.
- There is training of more skilled manpower in form of civil engineers from Makerere University, China, Korea, Italy and Japan to construct and maintain durable and quality roads like Kampala – Mityana road, Kampala – Entebbe high way and others.

- The Ministry of Works, Transport and communication is providing graders and bulldozers to all local governments in every district to repair, maintain and construct feeder roads like Kampala Capital City Authority upgrades and rehabilitates roads in Kampala district such as Rubaga and Namirembe road.
- The central government is acquiring and borrowing capital in form of loans from the World Bank, African Development Bank and international agencies to construct and upgrade roads and rail lines e.g. the funds that constructed the Kampala Northern by pass were got from the European Union.
- The Ministry of Works is constructing humps, climbing lanes and speed signs along truck roads so as to prevent road accidents like UNRA constructed humps at Nsangi and climbing lanes at Nabbingo and Nsangi corners along Kampala - Masaka road and humps along Kampala - Nateete road.
- The Uganda police are providing more traffic police officers and deployed them on main roads to reduce road accidents, remove vehicles in poor mechanical conditions on the road like along Kampala - Masaka road, Kampala – Jinja.
- MOW in conjunction with UPF is managing vehicle mechanical conditions so as to assess the conditions before allowed on roads for instance Nagulu Motor Assessment Centre in Kampala where vehicles are checked before being used on roads like on Kampala - Jinja road.
- The Ministry of Works is setting up an independent department to process and issue computerized driving permit in every region of Uganda like at Kyambogo in Kampala and other parts of the country.
- The Ministry of Works is contracting a private company known as Safe Drive Uganda (SDU) to inspect and test the mechanical conditions of all vehicles with inspection centres at Nabbingo along Kampala – Masaka road, at Kawanda along Kampala – Bombo road, at Namanve along Kampala – Jinja road, at Namulanda along Kampala – Entebbe road and others in Mbale, Gulu and Mbarara.
- The government is fighting against political insurgencies and highway robbery through deploying the UDPF army in war zone areas to ensure the safety of the passengers and goods like Mt. Rwenzori region in Kasese and police patrol vehicles along high ways like Kampala - Gulu road and Kasese - Bundibugyo road
- Uganda Police traffic department is installing police check points on every main track road to control high way robbery, verify valid driving permits, arresting and penalizing drinking and over speeding drivers like along Kampala - Jinja road, Kampala – Mbarara road and Kampala – Bombo road
- The MOW is importing modern technology such as graders, caterpillars and bulldozers from Japan and China to construct, maintain and repair roads like Kampala - Masaka road, Jinja – Iganga road, etc.
- The government is attracting both foreigners and local investors to exploit transport resources that are used for road and railway construction like on Kampala Northern Bypass. For example limestone at Tororo and Sironko is mined by Indians (Tororo Cement Company); granites at Mukono, Kawempe and Mbarara are quarried by ROKO Construction Company, Sterling and local investors such as Mukalazi works.
- Urban authorities like Kampala Capital City Authority, Mbale and Wakiso town councils are giving out taxi park tenders to Taxi operators like UTODA and Pioneer to manage small passenger vans or taxis within districts and outside which distribute taxi services on every road for effective transportation of passengers such as Kampala – Port Bell road.
- Ministry of works and urban authorities are turning some roads as one way routes in central business centres so as to reduce congestion like Kampala Capital City Authority turned Nkurumah and Nasser roads.
- Ministry of works and urban authorities are installing street lights and traffic lights along major roads and junctions to control traffic for better use of the roads like along Kampala – Jinja road and Kampala – Entebbe road.
- Government in joint venture with other East African countries is agreeing to revive and rebuild the East African railway as Standard Gauge Railway from Mombasa via Uganda to Rwanda and South Sudan to ease internal and external trade.

WATER TRANSPORT

REASONS WHY WATER TRANSPORT IS NOT WELL DEVELOPED IN UGANDA

The following are the reasons that have limited water transport in Uganda:

Physical factors:

- Presence of dense water hyacinth which has limited use of weak boats such as Canoes as they create a barrier across like on Lake Victoria at Port Bell in Kampala and Kyoga at Lwampanga in Nakasongola.
- Existence of dense papyrus and marsh swamp vegetation along the river courses and around shores of major lakes has limited accessibility to water bodies as well as development of landing sites like at Ggaba and Munyonyo Swamps in Kampala limit easy access to Lake Victoria.
- Presence of sharp waterfalls and rapids along major rivers which have made boats and ships enable to cross those points difficult like on Victoria Nile with Bujagali in Jinja and Murchison falls in Buliisa
- Some Lakes are experience strong winds that cause strong waves and consequently accidents, which claim people's lives and destroy property like Lake Kyoga is affected by the North and the South East Trade winds which are more dangerous via Lwampanga – Masindi port.
- Existence of large out crop rocks and stumps have limited development of water transport as these rocks submerge leading to accidents once they are knocked by boats and ships like Lake Victoria around Ssesse islands in Kalangala and at Kasenyi landing site in Wakiso.
- Some lakes are home of large harmful wild animals like hippos, crocodiles and snakes that are a major threat to sailing passengers like on L. Edward – George and Kazinga channel in Rubirizi and Kasese and on L. Victoria in Mayuge and Bugiri.
- Some Lakes and rivers are very shallow which disable sailing of big and heavy boats / ships like L. Kyoga is approximately 8 -16 metres deep, Lake George is 3 metres deep, River Ssezibwa and Mayanja are also shallow, etc.
- Some rivers are very narrow and therefore have failed for use of vibrant water transport such as River Katonga in Masaka and some sections of the Victoria Nile in Jinja and Kayunga.
- Occurrence of prolonged drought due to climatic changes which has led to the reduction in water levels of some lakes and rivers thereby limiting water transport like Lake Wamala in Mubende and Bisina in Kumi are innavigable and unsafe during periods of drought.
- Some rivers have strong currents, fast and speedy flow of waters which makes boarding and stopping of boats difficult like on Victoria Nile via Jinja - Kayunga to Lake Kyoga.
- Some river banks and lake shores have steep landscape which limit the navigation and construction of landing ports / sites for water transport like Lake Albert within the Western rift valley in Buliisa and Hoima.
- Existence of dangerous pests on the river banks and lake shoes has scared use for water transport like R. Manafwa in Mbale with black flies for river blindness and L. Victoria on Buvuma islands with tsetse flies for sleeping sickness to humans.
- Presence of floating swamp vegetation (sudds) on and across rivers and lakes cover navigable parts as well as limit sailing of boats such as L. Kyoga in Serere and Opeta in Kumi
- Some rivers and lakes are faced with frequent silting due to erosion during the rainy seasons which makes the waters shallow limit sailing and anchoring like Albert Nile in Nebbi and Moyo and L. Victoria at Masese in Jinja.
- Some water bodies are located in remote and inaccessible areas with limited human population and economic activities which has therefore made them rarely used for navigation like Lake Bunyonyi in Kabale, Wamala in Mubende and Mutanda in Kisoro

Other factors:

- There are poorly developed transport links to connect water bodies which limit their navigability like Mpologoma river in Bugiri flows through a vast wetland where there are no roads linking to it.
- There is limited capital which has limited the purchase of modern water transport vessels such as motor boats, ships, engines, life saver jackets leading to use of the slow canoes powered by human energy like via Lwampanga - Bugondo route on Lake Kyoga and via Kasenyi – Ggaba route on L. Victoria.
- There are political insurgencies and insecurity caused by civil war in South Sudan, hostility in Karamoja and ADF rebels in DRC which has limited use of water transport like along the Albert Nile in Moyo, R. Okere in Moroto and L. Albert near Rukwazi Island in Hoima.
- There is poor state of landing sites as well as poorly equipped port facilities where passengers have to step in water that have limited effective use of water transport like at Kasensero in Rakai and Masese in Jinja on L. Victoria; and Wanseko and Butiaba in Buliisa on L. Albert.

- There is stiff competition from other forms of relatively safer and quick transport means like road which has limited development of water transport like Port Bell – Kisumu water route is outcompeted by Kampala – Busia - Mombasa road.
- There is inadequate skilled man power in form of trained captains, engineers and life savers which has led to inefficiency in handling water transport like Kabalega ship collided with Kaawa ship on Lake Victoria in 2005 because of semi-skilled Captains where Kabalega sank along with its cargo.
- There is continuous construction of dams across rivers which blocks water sailing like Bujjagali in Jinja and Karuma power dam in Kiryandongo along Victoria Nile.
- There are low levels of technology and limited spare parts for making as well as repairing modern ships and boats which has led to usage of poor conditioned vessels and wooded boats like Kasenyi - Ssese islands in Kalangala on L. Victoria.
- There is massive encroachment on swamps, rivers and lakes for farming, settlement and other infrastructures which have reduced water surface for navigable like on L. Victoria at Munyonyo in Kampala.
- There is negative government policy of allocating little funds in water transport sector as L. Victoria has only one major ship, MV Kalangala ship for Kigungu (Nakiwoko port) – Ssese Islands water route.
- Water transport is risky and characterized by terrific accidents which make one hardly to survive leading to low traffic and fear like on Lake Victoria and Lake Albert.

STEPS TAKEN TO DEVELOP WATER TRANSPORT IN UGANDA

Several measures have been put in place to develop water transport in Uganda as follows:

- The Ministry of Works, Transport and Communication has put in place and commissioned ferries which transports people and goods at very low or zero cost like MV Pearl ferry from Bukakata in Masaka - Ssese islands in Kalangala, etc.
- The Ministry of Transport has modernised and expanded ports and piers to avoid people from stepping in water as well as easing the anchoring like Portbell and Ggaba – Buvuma routes in Kampala on L. Victoria, etc.
- The National Environment management Authority (NEMA) and the Ministry of Works have removed the water hyacinth from water bodies using prisoners and other people so as to enable boats use the lakes and rivers effectively for navigation like on Lake Victoria at Portbell and Ggaba in Kampala – Mwanza and Bukoba water routes.
- Fisheries Development Project aided by the African Development Bank has renovated and developed more landing sites and ports along lakeshores and rivers to facilitate water transport like on Lake Kyoga, via Lwampanga – Bukungu water route.
- The Uganda People's Defence Force (UPDF), Marine Police and Maritime Security have provided tight security along water bodies and on every landing site and ports through regular patrols to fight political insurgencies, theft and smuggling like on Lake Victoria, via Kasenyi – Kome Islands water way.
- The Ministry of Transport has constructed new roads and rehabilitated existed linking roads that lead to landing sites and ports so as to create accessibility to water transport like Mukono – Katosi road has been upgrade to tarmac to Katosi landing site – Buvuma Islands way on L. Victoria.
- The Ministry of Works and local traders have imported modern motor boats, engines and spare parts from Japan for better water transport facilities and services which are used on L. Victoria, via Ggaba – Port Bell route.
- There has been construction and building of local wooded boats using local timber on which imported engines are fixed for cheaper sailing locally like via Bukakata landing sites in Masaka – Ssese Islands on L. Victoria.
- The Ministry of Works and Marine police have enforced the use of life saver jackets so as to minimise accidents of drowning after boat and ship capsizing like on Lake Albert, via Wanseko in Buliisa – Muhagi water way.
- The Ministry of Works in conjunction with Ministry of Education has trained manpower through scholarships in oversea countries and locally as marine navigators and marine life savers or water divers so as to control their ferries and ships as well as saving passengers' lives in case of drowning like Port Bell – Ssese Islands water route on Lake Victoria.
- The Ministry of Works has imported more ships and ferries for commercial water transport to the business class like MV Kalangala via Nakiwoko – Ssese Islands on Lake Victoria.

- The government has attracted foreign investors to invest in water transport to overcome capital inadequacy by building and maintaining modern boats and ships like an Egyptian ship workshop at Masese – Kome Islands way on L. Victoria.
- Ministry of Works together with Marine officials are putting in place water signs of danger to avoid rock outcrops, shallow waters and stumps while sailing like via Kasenyi in Wakiso – Buvuma Islands route on L. Victoria.
- Ministry of Works together with Wild Life Authority are allocating wild animals from navigable waters to gazetted areas to overcome the fear and panic of sailors like on L. Edward, via Katwe – Rwenshama water route.

AIR TRANSPORT

Air transport is largely used to carry local passengers, visitors, highly valued goods and urgently needed goods like drugs, flowers, etc within the country and overseas.

However, air transport is still in its infant stages of development due to the fact that it has one international airport at Entebbe.

Besides it, there are several small air strips located in strategic areas handling domestic flights such as Soroti, Kimaka in Jinja, Kololo in Kampala, Kasese, Arua, Moroto, Tororo, Pakwach, Kaunugu and many others.

REASONS FOR THE DECLINE OF AIR TRANSPORT

The following are the factors that have limited the development of air transport in Uganda;

- There was liquidification of Ugandan airlines which was managing air transport on behalf of the government due to limited capital that hindered both domestic and foreign flights like Entebbe – UK and Kasese air routes.
- There is limited capital which has hindered the purchase of aircrafts, the maintain airstrips and the construction of new airports like Entebbe – Ssesse Islands air route.
- Air transport particularly Uganda airlines had limited skilled labour in form of pilots, aero - mechanics, accountants and vibrant administrators which limited the running of the air industry thus its collapse for Entebbe – USA air route.
- There is insecurity which scare passengers for flight leading to the decline of air transport like LRA rebel activities stopped Gulu – Entebbe flights and the Karamojong warriors limit Entebbe - Kaabong, Moroto and Kotido air routes.
- There are bilateral restrictions to free market access have led to the decline of air transport like Britain, Kenya, Germany and others tends to restrict aero planes via Entebbe – UK and Germany air routes.
- There is limited market in term of low passenger traffic using air transport which makes the travel and maintenance cost high like Entebbe - Kenya air flight.
- There is poorly developed infrastructure in form of airstrips, airports, run ways and gadgets like radars that limit the detection and monitoring air transport leading to accidents like Entebbe - Kimaka, Moroto, Gulu and Kasese air routes.
- There is stiff competition internally and externally from alternative and cheaper means of transport mainly road that led to low air travels like Entebbe - Kenya air flights are out competed by Kampala – Busia – Nairobi - Mombasa road.
- There is operating old and poor conditioned aircrafts that are noisy and prone to make accidents like Uganda police and the Air force (UPDF) are operating old aircrafts for Entebbe - Somali air routes.
- There is total lack of spare parts which has led to failure for aircraft repairing and maintaining leading to cancelation of flights for Entebbe – Kigali air routes.
- There is serious corruption and embezzlement by the managers, procurement committees, etc of the funds allocated to management of air transport which has limited air flights like Gulu – Kajjansi air routes.
- There is a lot of bureaucracy involved in air travels like getting passport , air ticketing, bookings by foreign companies as well as visa aquisition to certain countires have discouraged people to use air transport like Entebbe – USA and Britian air routes.
- There was general loss of confidence and trust by the public in the sector due to accident leading to reduction of air passenger traffic like Entebbe – Rome air route accident by the Uganda airlines in 1970s.
- There is ever- rising fuel costs on Ugandan fuel market and whole world which has made air transport very expensive and to have small traffic like Entebbe – Juba and Kigali air routes.

STEPS BEING TAKEN TO DEVELOP AIR TRANSPORT IN UGANDA

The following are the measures being taken to develop air transport in Uganda;

- The government of Uganda has liberalised the sector to foreign and local air companies so as to operate air transport for effective air services such as Kenya airways for Entebbe – Nairobi and Mombasa air flights and Eagle airways for Kajjansi – Gulu air routes
- Soroti aero - pilot training school has reinforced to train more pilots and aero – engineers to solve the manpower gap for effective air services for Entebbe – Dodom and Arusha air flights.
- New training craft facilities have been bought for Soroti aero - pilot training school to equip the aero- pilots and aero – engineers more air piloting and mechanical aero skills and knowledge so as to ensure efficiency in air travels like Entebbe – UK air routes
- MOT, MOE together with the UPDF as well as private airlines have sent competent candidates to Kenya, USA, Cuba and Russia for advanced training in air piloting and mechanical aero skills for effective air services like for Entebbe – Cairo and Johannesburg air flights.
- New airstrips have been constructed and developed near urban centres and in resource potential areas to ease air transport like Kajjansi air strip near Kampala for internal travel such as Kajjansi – Kanungu air routes and many others.
- The government through MOW has formed a private body, Civil Aviation Authority (CAA) based at Entebbe international airport, to monitor, regulate, recruit and also train labour locally to handle both internal and external air flights like Entebbe – London and Dubai air routes.
- The MOW and CAA have rehabilitated the old airport at Entebbe as well as built and expanded Entebbe international airport to more international standards for high passenger traffic and larger cargo like Entebbe – Somali and Dar – es – Salaam air routes.
- CAA has improved cargo and passenger handling through forming ENHAS (Entebbe handling services) at Entebbe airport which handles and stores cargo both imports and exports via Entebbe – Nairobi and Dubai air travels.
- The government through UPDF with help of local trained security personnel has tried to improve political stability in different parts of the country by fighting rebels as well as ensuring security at air strips in those areas for Entebbe – Kasese and Gulu air travels.
- Private aircraft companies like British airways, Brussels airways, Ethiopian airline and Emirates airlines have hired foreign skilled manpower from Germany, USA, UK, South Africa, Kenya and other countries to run the air services in Uganda for excellent air travels like Entebbe – Britain and UAE air flights.
- Private aircraft companies have purchased and imported smaller and less expensive aircrafts which mainly operate on domestic flights in Uganda for easy and quick movements such as Eagle airlines at Kajjansi for Kajjansi – Lira and Soroti air routes.
- The government in partnership with the Chinese government has underplans to import on loan new 4 aircrafts for both passenger and cargo flights mainly on international level so as to revive the national airlines like Entebbe – Shanghai, Tokyo and Dubai air travels.
- Etc.

Sample Questions:

1. With reference to specific examples account for the distribution of transport routes in Uganda.
2. To what extent have the distribution of the road transport network been influenced by physical factors?
3. Discuss the role of transport routes in the economic development of Uganda.
4. Examine the problems facing the development of road and railway transport in Uganda.
5. Explain the steps being taken to develop the road and railway transport in Uganda.
6. Account for the low level of development of air transport in Uganda.
7. To what extent have physical factors limited the development of water transport in Uganda?
8. Discuss the role of external trade /internal trade/ economic integration in the economic development of Uganda.
9. Account for the growth and development of external trade /internal trade/ economic integration in Uganda.

Sample Approaches:

Candidates are expected to;

- Define the key word (s) in the question.
- Cite out the status / stand/ situation (+ve / -ve) of the major sector.
- Identify, describe and locate of the sub – sectors of the major sector in Uganda.
- Draw a sketch map showing the sub – sectors of the major sector with name of places.
- State, explain and then illustrate the how far (the extent to which) are the physical factors responsible for in relation to the sub – sectors of the major sector.
- Finally state, explain and then illustrate the however side of the other factors responsible for in relation to the sub – sectors of the major sector in Uganda besides physical factors.

OR

- State, explain and then illustrate the points (both positive and negative contribution / physical and human factors) in relation to the sub – sectors of the major sector in Uganda.

- Copying them in continuous until end of February 2023.
- Last batch is unique discussion

MERRY CHRISTMAS AND WEALTHY-HEALTHY 2023