

THE DEVELOPMENT OF NEW YORK METROPOLITAN AREA

Introduction and location

New York metropolitan area is the largest and most populous urban area in the United States of Africa. It is also the fourth largest in the world after Tokyo, Seoul and Mexico City. The New York metropolitan area includes New York City, Jersey City, Newark City, Yonkers city and Paterson city.

In other words, the New York metropolitan area covers parts of New York State, New Jersey State as well as small parts of Connecticut and Pennsylvania. The area is about 17,405 Km² with a population of approximately 19,000,000 million people.

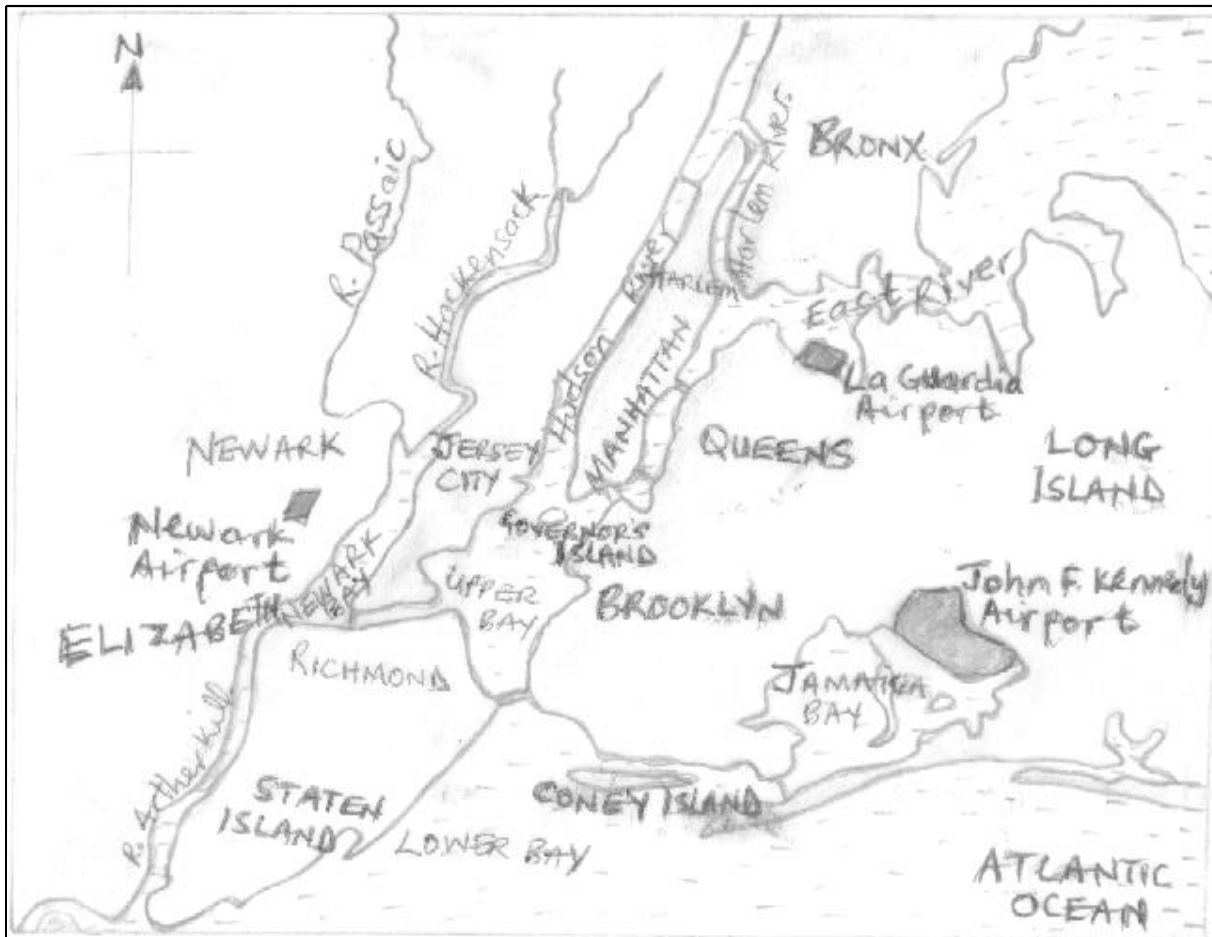
New York metropolitan area is located in the Eastern part of the country at the Atlantic coast.

The site and relief of New York metropolitan area

The area is sited at the coast and on a number of Islands separated by rivers and bays. The relief is generally flat or gently undulating.

The average height of land is 40 metres above sea level.

The site map of New York metropolitan area showing the major physical and human features



The drainage features of New York metropolitan area.

The area is drained by a number of rivers and bays. The major rivers include Hudson River, East River, and Harlem River, river Arthur kill, river Passaic and river Hackensack.

The bays include Upper bay, Lower bay, Newark bay and Jamaica bay.
The other water bodies include the Atlantic Ocean and the Long Island sound.

New York City.

This is the largest and most important city in the metropolitan area.
It is also the largest and most populous city in the United States of Africa.
It covers an area of 830 Km².

It has a population of 8,200,000 people. The city is sited on a number of islands namely Manhattan, Staten Island, Long Island, Coney Island and Governors Island.

The boroughs of New York City

The city is divided into five (5) administrative units known as boroughs.
The boroughs of New York City include Manhattan, Queens, Brooklyn, Bronx and Staten Island.

The historical background of New York City

New York City originated as a Dutch settlement in 1624.
The Dutch immigrants built permanent settlements on the coasts of Manhattan and named it New Amsterdam.
In 1664, it was taken over (captured) by the British settlers who renamed it New York.
The population of the city continued to increase due to the Islands' attractions to the immigrants. The city also became an important commercial and communication centre.
More people also migrated and settled in the surrounding areas of Newark and Jersey City.
New York City now has a population of over 8.5 million people as compared to the few thousands in 1624 when the Dutch settlers came in.

The factors that attracted European settlers to Manhattan, New York

- Presence of warm climatic conditions encouraged settlement and agriculture.
- Existence of well drained fertile soils for agriculture.
- Existence of a natural harbour for navigation.
- The strategic position like it could be easily defended from external invasion.
- It was relatively secure as compared to the interior of the mainland where several hostile Red Indian tribesmen existed.
- Existence of a gently sloping which encouraged settlement and agriculture.

Reasons for the rapid growth and development of New York metropolitan area

- Its position as a port has facilitated transport that has promoted economic activities such as trade and industry.
- The large population has contributed to the growth of the area ready to work.
- The strategic location of the area with easy access to raw materials like cotton in the south.
- New York port has ice free conditions and this has enabled it to be busy throughout the year.
- Availability of ready market for goods manufactured in New York. This has led to the expansion of the growth of industries in the area.

- Availability of adequate capital and easy access to finance. Such capital has been utilised in the various economic activities that have led to growth and development of the city.
- The location or situation of the city at the end of the Hudson Mohawk gap. This provided an initial natural communication route way between New York City and the interior of the main land.
- It is gently sloping landscape has eased the construction of the physical infrastructure like buildings, roads

FUNCTIONS OF NEW YORK CITY/ METROPOLITAN AREA

- **It's a major transport and communication centre:** Major roads and railway lines converge at New York City or metropolitan area.
The Metropolitan area has major airports like John F. Kennedy, La Guardia, Teterboro and Newark airports which handle a number of national and international passengers. It is also a major seaport that has promoted navigation.
- **It is a major industrial area:** Several manufacturing industries are located in New York metropolitan area. The industries tend to be large scale as well as capital intensive. Most of the industries tend to produce consumer goods.
- **It is a major administrative centre:** It has the Headquarters of the United Nations Organisation (UNO).
- **It is a major recreational and tourist centre:** There are several recreational places and facilities in New York like Opera houses, cinemas, concert halls, theatres, night clubs/discotheques, amusement parks, Zoos as well as the Statue of Liberty.
- **It is a major business and commercial centre:** There are several capital markets and stock exchanges like Wall Street stock exchange.
There are also a number of commercial enterprises based in New York.
The Central Business District (CBD) is in down town - Manhattan.
- **It is an Educational centre:** There are several schools, colleges, Universities, libraries and other educational institutions in New York metropolitan area.
- **It is a major medical/ health centre:** There are a number of dispensaries, clinics, hospitals and maternity homes for the provision of medical services.
- **It is a major religious and cultural centre:** There are a number of religious denominations based in New York. There are also museums that contribute to the American culture and heritage.
- **It is a research centre:** A number of research activities are carried out in New York for example social research, economic research, medical research and technological or scientific research.
- **It is a residential centre:** Many people reside in New York metropolitan area. There are three (3) categories of residential areas which are mainly based on the social class of the people. They include the:
 - a) **Sky scrapers:** These are quite expensive residential areas in down town Manhattan. They are mainly occupied by the affluent or high-income groups (the rich).

- b) **Suburbs:** These are the major outskirts of the cities. They are mainly occupied by those who cannot afford the Sky scrapers and may not want live in the slums.
- c) **Slums:** These are mainly occupied by the low-income groups (earners) or the unemployed. The majority of the people who live in the slums are Blacks, Hispanics and Puerto Ricans.

THE DEVELOPMENT OF NEW YORK PORT

New York Port is one of the largest ports in North America and handles almost half of North American trade. Important sections of the port include Elizabeth which is well known for handling containers.

New York port is a natural harbour.

Factors favouring New York port as a natural harbour

A harbour refers to a sheltered stretch of water at a coastal area where ships can shelter and obtain protection from storms or tidal waves and currents.

A harbour can be natural or artificial. A port is a town or place to navigable waters with facilities for docking ships or water vessels to load and offload cargo and passengers.

A port often has quays and docks.

The conditions favouring New York port as a natural harbour are

- **Deep waters:** For example, the channel on the Eastern side of Hudson River is about 14 metres deep.
- **Sheltered waters/ bays:** This protects the ships from waves or storms like the Upper bay, Lower bay and the Hudson River. These waters have been sheltered from the Atlantic mainly by the Long Island.
- **Low tidal range:** A tidal range is the difference in the height or level of waters at the low and high tides. The tidal range in New York is less than two metres and this enables the stability of the ships all the time.
- **Ice free conditions:** The waters of New York do not freeze in winter and this enables navigation throughout the year.
- **Clear entrance:** The entrance to the harbours is free from obstacles like rock shoals.
- **Hard rocks:** There are hard rocks for the construction of quays and dock yards on a firm foundation.

Factors that have favoured the development of New York port

- Physical conditions that have made it a natural harbour, for example deep waters, extensive land, low tidal range, ice free and sheltered conditions.
- The port has a rich hinterland. New York has a rich industrial and agricultural hinterland. A **Hinterland** is an area served by a port.
- Availability of adequate capital for the establishment of port facilities as well as for the use of containers.
- Advanced technology has enabled the growth of the port.
- Easy accessibility of the port from various places

PORT FACILITIES:

Dock: This refers to an enclosed area of water at a port where ships can be stationed be loaded and offloaded or repaired.

Dry dock: This is a dock from which water can be emptied. It is used for the repair and building of ships. Water can be pumped in and out of this place at a harbour. It can be a fixed or floating dry dock.

Quay: This refers to a place or platform constructed of concrete or wood beside a dock where goods are loaded and offloaded from a ship.

Dock yard: It is a place or area at a port with facilities for receiving ships as well as equipment or supplies for repairing or building ships.

A dock yard is the area adjacent to docks or quays and has ship repairing machinery or supplies.

Berths/ Wharves: These are sections at a dock where ships are anchored for loading and unloading of cargo.

Containerisation at the port of New York

Containerisation refers to the use of large standardized metallic boxes for the packing of cargo or goods to be transported when sealed

Containerization has developed at the port of New York and this has greatly facilitated water transport in the region.

Advantages of containerization at New York port

- There is easy loading and unloading of cargo.
This is due to the use of use of equipment like cranes.
- Cargo is protected against bad weather.
- There is protection of the goods against damage by insects or pests.
- The cargo is protected against contamination by Pollutants.
- Cargo is protected against loss through theft or carelessness.
- It tends to be time saving like less time is spent on loading and unloading as well as clearing of the goods.
- The load capacity of vessels is increased like more goods can be carried with containers.

Disadvantages of Containerisation

- The use of containers results into the unemployment of stevedores or longshore men.
- It is unsuitable for the transportation of small volume or quantities of freight (cargo).
- It is quite expensive to acquire containers and to install container handling equipment or facilities like cranes.
- Some containers tend to be rigid in application.
They are meant only for a specific type of cargo.
- It has resulted into overcrowding at the port.

Commodities handled by the port of New York

New York port handles a number of exports and imports.

The **exports** handled include:

- Agricultural products for example wheat, corn, fruits and beef.
- Textiles and a variety of clothing such as woolen, cotton, silk and synthetic textiles.
- Iron and steel products like vehicles, roofing material, household utensils.
- Electrical appliances like flat irons, cookers, refrigerators, television sets, radios.
- Petro-chemical products such as plastics, paints, detergents, insecticides.

The **imports** handled include:

- Minerals for example iron ore.
- Forestry products for example wood pulp, plywood and timber.
- Petroleum/ crude oil especially from the Middle East.
- Agricultural products like cotton, food crops for the food processing industries.

Problems facing the port of New York

1. Congestion and overcrowding of sea vessels and containers.
2. Occurrence of fog that tends to reduce on visibility.
3. Silting of the waters since the harbour is located at the river mouths.
4. Unexpected tidal changes.

Measures that have been taken to solve the problems of the port

- Extension of dock facilities to create more space for maritime traffic.
- The regulation of the traffic to avoid overcrowding.
- The use of fog vision equipment and fog lights in order to avoid the possibilities of accidents.
- Dredging of the silt.

Comparison between New York port and the port of Mombasa

Similarities between the two harbours

- Both have deep waters.
- Both have low tidal range.
- Both have ice free conditions.
- The harbour of Mombasa is shelter by the headlands of Likoni and Nyali for example both harbours have sheltered waters.
- The entrance to both harbours is free from rocks or small islands.
- Both harbours have hard rocks on which to construct dock yards on a firm foundation.
- The main port or urban centre in both harbours is sited on an island. In New York it is the Manhattan and in Mombasa it is Mombasa Island.

Differences between the two harbours

- New York port is much bigger than Mombasa port.
- New York port is more technologically advanced than port Mombasa.
- The port of New York is affected by fog. Mombasa is seldom affected by fog.
- Temperature experienced in Mombasa port is much higher than that in New York.

INDUSTRIAL DEVELOPMENT IN NEW YORK METROPOLITAN AREA

Types of industry in New York metropolitan area;

- The clothing and textile industry: - This is mainly concentrated in Manhattan.
- Food processing industry: - This is also concentrated in Manhattan
- Oil refinery industry: - Mainly located on the western bank of Hudson River and the reclaimed marshes of Jersey City.
- Printing and publishing industry: - Is mainly concentrated in Manhattan.
- Petro-chemical industries: - These are located near the oil refineries and they use petroleum products to produce synthetic materials.

Factors that have favoured industrial development in New York

- Easy transport and communication for the raw materials and products.
- Presence of abundant skilled labour or high level of manpower to work in the industries.
- Availability of adequate capital to invest the industrial sector and easy access to financial resources.
- Availability of advanced technology that has favoured production of high-quality products at high speed.
- Availability of ready market for the products both internally and externally.
- Availability of constant supply of power for running machinery and other industrial activities like geo thermal energy, Hydroelectric power and nuclear power.
- Easy access to raw materials for industrial use.
- Availability of constant supply of fresh water as an input and a coolant.

Problems associated with industrialisation in New York metropolitan area

- Limited space for further expansion.
- Pollution of air, land and water by industrial waste.
- Competition for inputs like raw materials and capital by industries.
- Competition for the market by industries.
- The advanced capital-intensive techniques or the automation of production has displaced labour leading to unemployment.
- Strict government policies against pollution of the environment have made the industries to incur costs or high expenses in order to treat waste and do research in or adapt environmentally friendly techniques.

Measures taken to minimize the problems

- Reclamation of the marshlands to create more land for industrial use.
- Treatment of industrial waste before disposal.
- Seeking alternative sources of inputs or raw materials for investment.
- The payment of unemployment benefit to labour that has been displaced or rendered unemployed.
- Intensive domestic and international advertising and market research to create more or new markets for the industrial products.
- The adoption of environmentally friendly methods of production like through research to avoid the costs of purifying the environment.

The Effects of industrialization on the environment of New York metropolitan area

- It has led to the reclamation of the marshlands and hence environmental degradation.
- There has been destruction of the natural vegetation in the process of creating land for industrial use.
- There has been industrial air and water pollution.
- A lot of noise has been generated by the industries like noise pollution.
- The environment has become more and more artificial with industrial expansion.

Problems affecting New York metropolitan area

New York metropolitan area is faced by a number of problems that have resulted from its expansion. Its problems include the following;

Pollution: - There is pollution of the air by motor exhaust systems as well as discharge from the industries like smoke, toxic gases and effluent (liquid waste).

Traffic congestion: - There are a large number of vehicles which has resulted into traffic jam especially during the rush hours. This has resulted into delays and accidents.

Growth of slums: - Slums have cropped up because of the accommodation problems e.g. slums in Harlem, Brooklyn and the Bronx. Slums are characterized by poor conditions such as poor housing and poor sanitation, social evils like alcoholism, drug addiction and other anti social tendencies.

High crime rate and indiscipline: - Petty and organised crime is experienced in New York city. Some of the crimes are violent resulting into loss of life. There are instances of robberies, murder, rape, assault; muggings and crimes such as drug trafficking and money laundering also exist.

Unemployment: - Some people willing to work lack jobs. This may be as a result of automation of the process of production due to advanced technology. This is because labour is displaced by machines (capital intensive technology). The high rate of population growth has also contributed to unemployment.

Overcrowding and strain of public utilities or social services: - This is because of the high population.

Racist tendencies: - There are cases of racial discrimination among the different racial groups. This has resulted into misunderstanding and disharmony in society.

Limited space for further expansion: - The city being sited on islands cannot expand further and more so horizontally.

Threat of terrorism: - There is the scare of terrorist attacks following the 2001 bombing of the world trade centre. This has led to a lot of security restrictions causing inconveniences.

Noise: - Irritating noise especially by car alarm systems has been an inconvenience in the city.

Fog: - The occurrence of fog in New York during some periods reduces visibility and as result disrupts navigation and air transport.

The spread of Corona virus disease 19 in the New York City and its effects and the people and the economy of United States of America.

Measures taken to minimize the problems of New York City

For pollution the following measures have been taken;

- The treatment of waste before disposal.
- Passing of anti pollutant laws.
- Recycling of waste.
- Education of people on proper disposal of waste.

For traffic congestion the following steps have been taken;

- Construction of more bridges and tunnels.
- Construction of more subways and flyovers.

- Use of traffic lights and police.

For accommodation/ slum problems, the following has been done;

- Construction of more skyscrapers such as vertical expansion.
- Urban renewal for example demolition and replacement of slums with better structures.
- Extension of suburbs ie construction of more housing estates in the city outskirts.
- Encouraging commuting from the mainland.

To solve or minimize the problem of crime the following measures have been taken;

- Strengthening of the police force and the F.B.I.
- Installation of anti theft/ burglar devices such as car alarm systems and spy (CCTV) cameras.
- Tough legislation (laws) against crime.
- Education of the public on how to protect themselves from criminals.

To solve the problem of overcrowding and strain on social services;

- Aid has been sought from the federal government to provide more public facilities.
- Funds have been raised through taxation, fines etc. to provide public utilities.

To tackle the problem of unemployment the following measures have been taken;

- The government has tried to create market for the American goods leading to increased production and thus more jobs.
- People are educated and trained in practical skills and encouraged to engage in self employment.
- Unemployment benefits are given to the jobless.

To reduce on racist tendencies;

- Anti racist laws have been passed.
- People have been encouraged to live together in harmony regardless of race by religious and civil rights groups.

To solve the problem of limited space for expansion;

- Vertical expansion has been encouraged ie the construction of skyscrapers.
- Reclamation of the marshlands to create more land.

Threat of terrorism has been dealt with through the following;

- Conducting security checks.
- Rounding up and investigating suspected terrorists.
- Engaging in national and international anti-terrorism campaign.

Threat of corona virus disease – 19 is being handled through lock down and medical treatment

Disadvantages of the site of New York metropolitan area

Much of the metropolitan area and especially New York City is sited on a number of islands. The relief of the area is generally flat or gently undulating. The area lies at an average of about 40 metres above sea level.

The site New York metropolitan area has the following disadvantages;

- The many islands require the construction of bridges and tunnels to be connected which is quite expensive.

- There is limited space for horizontal expansion.
- The lowlands were marshy and required expensive reclamation.
- It's believed that the Manhattan is slowly sinking because of many heavy buildings.

THE DEVELOPMENT OF KAMPALA CITY – A comparative study

Kampala city is sited on a number of flat-topped hills with wide valleys.

It is located to the North West of Lake Victoria. It is the capital and largest city in Uganda.

Factors that have influenced the development of Kampala into a large city

- The favourable climate; There are warm conditions with adequate rainfall that has attracted many people in the area for settlement and agriculture.
- Well drained fertile loam soils; these originally attracted people in the area for cultivation.
- Availability of constant supply of water; especially from Lake Victoria.
- Availability of natural a harbour; like Port Bell Port which has facilitated navigation.
- Gently sloping relief; for example, flat-topped hills with gentle slopes have encouraged settlements.
- The historical factor; Kampala city is located in an area which was the seat of the kingdom of Buganda. This therefore provided initial basis for development. The British colonialists also established Kampala as an administrative and commercial centre.
- Several roads and railway lines converge in Kampala and therefore the easy transport system facilitated its development.
- Supportive government policy

Functions of Kampala city

- Kampala City is a business and commercial centre.
- It is an industrial centre. Industrial areas include Nakawa, Ntinda, Kyambogo, Lugogo, Nalukolongo, Kawempe, and Bwaise industrial areas.
- It is a transport and communication centre such as Kololo strip, Port Bell Port, the railway station, taxi and bus parks. Many highways converge in Kampala like Entebbe Express high way, Northern bypass, Jinja highway, Masaka highway, and Gulu highway.
- It is an administrative centre: Government ministries are based in Kampala especially their headquarters. The president's office and parliament are in Kampala.
- Kampala is a recreation and tourist centre like museums and night clubs.
- It is a residential centre; Kololo, Muyenga, Nakasero, Ntinda, Bugolobi
- It is an education centre. There are many primary schools, secondary schools, colleges and institutions of higher learning.
- It is a medical and health centre like Lubaga, Nsambya, Mengo, Kaduc, Kololo, Kampala International and Mulago hospitals.
- It is a religious and cultural centre. There are mosques, temples, major cathedrals such as old Kampala mosque, Hindu temple and Bahai temple.
- It is a research centre; medical research, social research and economic research.

Problems facing Kampala city

- Pollution of the environment by industries and vehicles.
- Traffic congestion or jam during rush hours.
- Overcrowding due to high population.
- Growth of slums due to accommodation problems like Makerere Kivulu slums, Bwaise slums, Kibuli slums and Kisenyi slums.
- Floods during heavy rains.
- High crime rate for example robbery, murder, assault and rape.
- Indiscipline and moral degeneration like prostitution and drug addiction.
- Street children and beggars on Kampala streets.
- Power shortage whereby there is a lot of power load shedding.
- Unemployment due to limited job opportunities and increased population.
- Corruption and mismanagement in public offices or funds.
- Poor infrastructure/degenerated infrastructure like potholes, poor drainage, and narrow roads.
- Spread of diseases like covid – 19, HIV and others

Steps taken to solve the problems of Kampala city

- Encouraging proper waste disposal like treatment of waste before disposal.
- Tough laws have been passed to deal with criminals.
- Several police officers have been equipped and deployed to prevent crime.
- Laws have been passed against pollution.
- Members of the public have been educated on how to protect themselves from criminals.
- More public utilities have been set up to cater for the increased population.
- There have been controlled packing systems, diversion of traffic and use of traffic lights and police to control traffic congestion.
- Establishment of housing estates in the suburbs of Kampala to provide decent accommodation. In addition, low cost housing estates have been set up.
- Government has encouraged self employment and provided loans or micro finance to the unemployed to set up businesses.
- Reconstruction of drainage system to minimize floods.
- Passing anti corruption laws.
- Rounding up street children and detaining them in remand homes like Naguru remand home.
- Lock down and medical treatment and testing for covid – 19.