THE NETHERLANDS OR HOLLAND.

The Netherlands sometimes referred to as Holland is one of the countries found in Western Europe. It is one of the Rhine lands countries. In location, the Netherlands is found between longitude 3^0 - 7^0 east of Greenwich meridian and latitude 50^0 - 53^0 north of the equator.

The Netherlands borders the North Sea to the north and west, Belgium to the south and Germany to the east. The Netherlands covers a total land area of 41,526 kms of which 18.4% is covered by water. The Netherlands has the coastline of the North Sea there for she is not a land locked country.

A map of the Netherlands and her neighbors

The Netherlands is a small country i.e.it is 1/8 of the total land area of Uganda but has a population of more than 16 million people.it is among the highest densely populated countries in the world.

NETHERLANDS PHYSICAL

The Netherlands is generally a low lying country. Its altitude ranges between 7ms to 322ms above sea level.25% Of the total land area of the Netherlands is below sea level. Most of the country is however flat with the exception of low hills in the extreme south-east.

The areas below sea level on the western parts of the country was reclaimed from the sea in the 13th century and today this region is guarded by sand dunes and dykes. The land that was reclaimed from the sea is divided in to units known as polders.

The Netherlands climate

The Netherlands is found in the temperate regions of the world. That is on the northern hemisphere. Because of this location she there for experiences the temperate type of climatic conditions. Her nearness to the sea and the warm north Atlantic Gulf Stream ensures a temperate maritime climate. The average temperatures fluctuate between 2 in Oct - 17 in Jan. In July however extreme temperatures occur such that at times temperatures can fall as low as -24 and the maximum is 34. The rainfall is evenly distributed throughout the year. The average rainfall is about 800mm per year. Spring is usually drier than autumn.

Climatic statistics for Amsterdam

Month	J	F	M	A	M	J	J	A	S	O	N	D
Temp	2	3	6	8	12	15	17	14	11	7	4	10
R.Fall	62	43	59	41	48	68	61	82	85	89	75	80

LAND RECLAMATION IN THE NETHERLANDS

More than half of the total land in the Netherlands was reclaimed from the North Sea. The land which has been reclaimed from the sea is known as polder land. The term polder refers to low lying reclaimed land enclosed by dykes or walls which protect the polders from the higher water levels or it is a piece of land which has been reclaimed from the sea and it is surrounded by protective walls called dykes. Reclamation of land in the Netherlands is known as polderization. The land which has been reclaimed from the sea forms marine polders while that which has been reclaimed from the rivers forms riverine polders.

The major polders in the Netherlands are the following, the Zuyder zee polder, the Delter polder, Haarlem polder and Am hem polder. The Zuyder zee project alone led to the creation of the following polders, Northeastern polder (1942), Eastern Flevoland polder (1957), South Flevoland polder (1960) and the Weiringermeer polder (1980). Other polders are Haarlem, Zeeland around the coasts of Gronngen, Lauwerszee north of Friesland.

A map of the Ziuder-zee land reclamation project in the Netherlands

According to the map above, the major polders found on the Zuider-zee reclaimed areas are the following,

- 1. The North-west polder (Weiringermeer polder) with an area of 20,000 hectares of created land
- 2. The North-eastern polder with an area of 48,000 hectares of created land
- 3. The Eastern Flevoland polder with an area of 54,000 hectares of created land
- 4. The South-west polder (Markerwaad polder) with an area of 60,000 hectares of created land
- 5. The South Flevoland polder with an area of 44,000 hectares of created land

How a polder is created/made

A polder is made through the following steps,

- 1. A lowland area is reclaimed from the sea by first building strong protective walls which cut it off from the sea
- 2. The enclosed lowland is then divided into polder ditches, control canals are built and a water pump is put in place which is used to pump out water from the ditch polder to the collection reservoir
- 3. The water is finally pumped out of the collection reservoir to the sea.

The sketch map below shows how a polder is created/made (page 225 revision book)

The table below shows reclaimed land in the Netherlands between the 14^{th} and 20^{th} centuries

century	Land reclaimed in square kms
1400-1500	430
1500-1600	730
1600-1700	1150
1700-1800	510
1800-1900	1200
1900-2000	730

A MAP OF NETHERLANDS SHOWING THE RECLAIMED AREAS OR PROVINCES **Page 139** The factors which favored land reclamation in the Netherlands > There was an increasing demand for more land for farming and settlement due to the increasing population.

There was a need to protect the land from flooding due to strong waves from the sea.
There was a need to increase and improve on the existing land for man's activities
As most of the land on the western and northern is below sea level it was necessary to protect it

from the sea.

- > There was a need to rescue the coastal beaches and other coastal land forms for the benefit of tourism
- ➤ There was an increasing demand to provide fresh water for domestic and industrial use as the sea water is salty.
- The invention of the wind mill in the 17th century which was used as a source of power to pump out water from the polders.
- > The government of the Netherlands provided capital which was used in this project of land reclamation
- There was high level of engineering skills needed for the task of reclaiming land. The first engineer was Cornelis Lely.
- ➤ There was need to protect the coastal land and the city of Amsterdam from seasonal flooding.

Uses of the reclaimed land or polders

- ✓ The polders are used for farming i.e. the growing of crops and the rearing of animals
- ✓ The polders are used for settlement i.e. the newly created land has been used for building residential houses, schools hospitals and cities like Lelystad have developed.
- ✓ The coastal beaches in some of the polders are used for recreational purposes and this has boosted tourism.
- ✓ Some of the polders are used for the development of industries.
- ✓ The polders are also used for the development of transport network especially in terms of roads and railway lines.
- ✓ Some of the polders have been used for the development of forestry so as to boost lumbering activities.
- ✓ Fresh water lakes have been created like Lake Yssel which provides ware for industrial and domestic use.

Problems facing proper use of the polders

- There is sometimes the outwash of flooding which comes as a result of breaking of the dykes. This problem is managed by the construction and reconstruction of the dykes.
- The soils in the polders are affected by salination this affects the productivity of the soil for crop growing.
- The polder land is infertile due to the fact that it is sandy. The farmers have to spend a lot in fertilizer application.
- There is a problem of shortage of fresh water for domestic use. This has been managed by the creation of man-made lakes like Lake Yssel.
- In most cases there is excessive water logging on the polders as they are at sea level. This is being managed by pumping excess water out of the polders with the help of wind mills.
- There is increase in salinity of the soil due to seepage of the salty water, which reduces the productivity of the land. Fertilizers are used all the time to increase the fertility of the soil.
- There is a problem of pollution as a result of many industries here. This is managed by encouraging proper ways of waste disposal and recycling the waste.
- There is a problem high land rent for the polder land due to high costs of reclaiming the land.
- There is a problem of silting of the canals in the polders. This is being managed by dredging of the canals periodically.

There are problems of pests and diseases for the crops grown on the polders. This is managed by spraying with chemicals.

Land use in the Netherlands

The table below shows the major land use types in the Netherlands

Land use type	Land use area (000)hectares	Percentage
Arable farming	900	
Livestock rearing	1500	
Forest land	300	
Settlement/industry/others	800	
Total	3530	100

- 1. Calculate the percentage values for each land use type.
- 2. Name the main and least land use type.
- 3. Construct a pie-chart to show the different land use types.
- 4. Draw a percentage bar graph to show the different land use types in the Netherlands.

Study the table below showing land use types in the Netherlands and answer the questions that follow

Land use type	land area ('000 hectares)
Arable farming	977
Permanent pasture	1291
Forest	288
Built up areas/wasteland	805
Total	3361

- a) Calculate the percentage of land area under;
 - (i) Arable farming
 - (ii) Forest
 - (iii) Permanent pasture
 - (iv) Built up/wasteland
- b) Draw a pie-chart to represent the relative importance of each land use type
- c) (i) State any one economic activity being carried out under each of the land use types (ii) Describe the conditions which have made it possible for the development of the land
 - (ii)Describe the conditions which have made it possible for the development of the land use type which occupies the largest percentage of the land
- d) Explain the contribution of any one of the following land use types to the Netherlands
 - (i) Arable farming
 - (ii) Permanent pasture

AGRICULTURE IN THE NETHERLANDS

The largest land area in the Netherlands is under agriculture i.e. Arable farming and animal rearing. Over 69% of the land in the Netherlands is under agriculture. Of this 69% 43% is grassland (animal rearing) the remaining 26% is for crop growing. The other 31% is used for forestry, buildings, roads and water.

Arable farming which is the growing of crops is done by many farmers. Most of the farmers therefor practice what is called market gardening or horticulture. Market gardening and horticulture are forms of agriculture involving the growing of vegetables, fruits and flowers for sale in the urban centers.

A sketch map of the Netherlands showing selected features towns and areas under horticulture (page 283 question bank)

Factors that have favored the development of arable farming (market gardening/horticulture) in the Netherlands

- ➤ There is ready/large/reliable market for the fruits, vegetables and flowers in the urban centers and the neighboring countries.
- ➤ The Netherlands has a well-developed transport network of roads, railway lines air and water transport. The water transport is along the Rhine water way which connects to most of the Rhine lands countries.
- ➤ The Netherlands is blessed with fertile clay soils suitable for the growing of fruits, vegetables, and flowers.
- ➤ The Netherlands has appropriate/advanced technology used in most of the farming practices i.e. use of green or plastic houses for the growing of crops such that the crops can be grown throughout the year.

- ➤ The initial sparse population which allowed the government to allocate farmers large areas for efficient farming. The average farm size is 40 hectares.
- The flat landscape of the polders favors use of mechanization.
- ➤ The Netherlands has adequate/strong capital base or reliable sources of capital which was provided by the Dutch government .This was used in the purchasing of machinery, green houses, fertilizers and other farm inputs and also during land reclamation.
- > The Netherlands has a constant supply/large amounts/ready supply of water from the ring canals reservoirs and also from Lake Yssel facilitates irrigation.
- > There is favorable marine climate, with cool summers, mild winters, and reliable rainfall is received throughout the year.
- > The Netherlands farmers have formed co-operative societies from which they can get a lot of assistance to support them in farming.
- > The Dutch carry out a lot of research in agriculture so as to develop high yielding crops and good quality animals.
- > There is favorable/positive government policy which supports the development of agriculture as one of the economic activities.
- > The Netherlands has skilled labor force/large supply of skilled labour/abundant labour force to manage the farming activities.

The problems facing horticulture or market gardening in the Netherlands

- ✓ There is a problem of soil exhaustion due to intensive cultivation.
- ✓ There is a problem of shortage of land for crop cultivation. The available land is not enough to satisfy the needs for food and cash crops
- ✓ There is limited home market/unreliable market/small market for the agricultural products.
- ✓ There is a problem of salination of the soil due to underground seepage of salty water from the sea.
- ✓ Horticulture /market gardening requires a lot of capital to run or manage it.
- ✓ There is limited rainfall during winter season and some dry seasons.
- ✓ There is a problem of river flooding which leads to the destruction of crops and farmlands.
- ✓ There is a problem of unfavorable climatic conditions especially in winter where the weather conditions are too cold to allow plant growth
- ✓ There are problems of high rent for the agricultural land especially in areas where land was reclaimed from the sea

The solutions to the problems facing horticulture and market gardening in the Netherlands

- Practicing intensive farming which requires less land and growing of high quality products to reduce on the problem of high costs on renting land.
- The Dutch farmers are encouraged to use fertilizers to improve on the soil fertility

- The problem of land shortage is managed by the government reclaiming more land from the Sea.
- The government takes responsibility of building embankments to control flooding.
- The problem of shortage of home market is managed by exporting of the excess produce to other countries.
- The farmers are encouraged to continuously use fertilizers to improve on the soil fertility due to sailnation and loss of soil fertility.
- The farmers are also encouraged to acquire loans from the banks and joining the cooperative societies.
- The problem of limited rainfall is managed by use of green houses to avoid overdependence on the natural conditions.
- The farmers also use glass houses to overcome the problem of unfavorable winter conditions this is because in a glass/green house temperatures can be regulated

ANIMAL REARING IN THE NETHERLANDS

Animal rearing is very important in the Netherlands agriculture. The common animals reared are cattle for milk and beef production. The other animals kept are pigs for meat and poultry birds also for eggs and meat. The major dairy farming provinces are, South Holland, North Holland and Friesland. The common dairy cattle breeds kept are the Black Friesland and White Friesland

A sketch map showing selected features, towns and dairy farming provinces (page 348 question bank)

The factors that have favored animal rearing in the Netherlands

- The cool temperate climatic conditions favor the rearing of livestock and pigs.
- > The presence of clay and sandy soils in many parts of the Netherlands which are not good for crop growing leaving such places for only animal rearing.
- The farmers keep high breed cattle which give high milk output.

- There is large/extensive/abundant land that has been kept aside for the rearing of animals more than crop growing.
- ➤ There is a constant supply/large amounts/regular supply of fresh water from Lake Yssel and other rivers for the animals to drink.
- ➤ There is a large/ready market from home and other countries for the animals and animal products.
- ➤ There is cheap/appropriate/advanced technology used in animal rearing e.g. the use of electric machines for milking the cows.
- There are adequate number of industries which process the milk and meat for export.
- > The development of co-operative societies which help the farmers in giving loans and marketing of the milk and meat products.
- ➤ The Netherlands has a well-developed transport network to facilitate the transportation of the milk and milk products.
- ➤ The Netherlands has a well-developed veterinary department which manages the livestock rearing activities.
- ➤ The farmers do not only depend on the natural pasture but they also grow fodder crops for feeding the animals.
- > There is positive government policy towards the rearing of cattle pigs and keeping poultry.
- > There is cheap and abundant labour/large supply of labour/skilled labour to manage animal rearing in the Netherlands

The benefits of the agricultural sector to the Netherlands

- ✓ The Netherlands is able to get a lot of foreign exchange from the exports of the animal and animal products. They also export flowers and other crops which also fetch a lot of foreign exchange.
- ✓ The agricultural sector is a source of employment for the people of Holland.i.e. Over 28,000 people are employed in the agricultural sector.
- ✓ The agricultural sector has led to the development of agro-based industries e.g. Dairy farming has led to the development of milk and milk processing industries, the fruits and vegetables have led to the development of fruit and vegetable processing industries.
- ✓ The agricultural sector has led to the development of the transport sector.
- ✓ The agricultural sector provides market to other industrial products like fertilizers, chemicals for managing the pests and diseases for the animals and the crops and agricultural implements.
- ✓ The agricultural sector provides the Dutch farmers with some income for their own use. This has improved on their standards of living.
- ✓ The agricultural sector has been able to make use of the land which would otherwise remain wasted.
- ✓ The farmers are able to make use of the animal waste for improving the soil fertility.
- ✓ The government is able to earn internal revenue by taxing the agro-based industries and the farmers.
- ✓ The agricultural sector has led to the growth of some towns in the Netherlands

INDUSTRIAL DEVELOPMENT IN THE NETHERLANDS

The Netherlands is one of the most industrialized countries in Europe or among the Rhine lands countries. The main industrial centers are found in Rotterdam, Amsterdam, Groningen, and Breda and others.

The common types of industries found in the Netherlands

There are many types of industries in Holland. The following are some of them

- 1. **Chemical industries.** The common products from these are chemicals, fertilizers, plastics, petroleum products, cosmetics, paints and dyes, soaps and detergents, pharmaceuticals etc.
- 2. **Engineering industries**. The common products from these are the following, generators for domestic and industrial uses, T.V sets Radios and other electrical appliances, house hold appliances, agricultural equipment, vehicles and many industrial machines.
- 3. **Food processing industries**. These include soft drinks, and other fruit processing industries, vegetable processing, milk and milk products, beef canning, grain milling and many others.
- 4. **Textile industries**. These deal in the manufacturing of clothes especially for the women.
- 5. Wood processing industries. These produce furniture and ply wood products.
- 6. **The printing and publishing industries**. These publish books, magazines, newspapers and many reading materials.
- 7. Ship building and ship repairs

A map of Netherlands showing the major industrial centers

The major industrial centers are some of the following;

* Rotterdam

This is acting as a city, a port as well as an industrial town. The common industries found here are ship building and ship repairs, oil refining chemical industries, metal works, sugar refining, and food processing.

- ❖ Amsterdam. This is also a city, a port as well as an industrial town. The common industries here are ship building, sugar refining, publishing, textile industries, glass making, air craft making, chemicals, diamond cutting and food processing.
- ❖ Groningen. This is famous for furniture and furniture products, bicycles, cigarettes publishing and other food processing.
- ❖ Breda. This industrial center is located in the South-western parts of the country. The common industries here are soft drinks, beer brewing, metal products, sugar refining and other food processing industries
- ❖ The Hage.this town is located on the western coast of the Netherlands. The common industries found here are Ship building, food processing, soft drinks, brewing and others
- ❖ Hengel. This industrial town is found on the eastern parts of the Netherlands. The common industries are mainly agro-based such as milk and milk products processing, meat packing, sugar refining, soft drinks and brewing

The factors that have favored the development of industries in the Netherlands.

- There is a wide variety/adequate varieties of agricultural raw materials which have led to the development of agro-based industries.
- > There are also wide varieties of mineral resources like oil which has led to the development of oil refining.
- ➤ There are a wide varieties/adequate sources/large supply of power to be used in the industries. The major source of power is H.E.P.
- There is positive government policy towards the development of industries.
- ➤ There are large tracts of land that was reclaimed from the sea i.e. polder land. Some of these land has been used for industrial development.
- > The Netherlands has an efficient/reliable transport network.in terms of roads, railway lines water and air transport.
- The Netherlands has skilled/cheap supply of labor force to work in the industries.
- > There is large/ready/reliable market for the manufactured goods from within the Netherlands, other European countries, Africa and others.
- > The Netherlands government has adequate/reliable sources of capital which has been invested on the development of industries
- ➤ There is large/ready/reliable market for her industrial goods from within the country and in the other neighboring European countries and in the rest of the world.
- There is constant supply/large amounts/regular supply of water to be used in the industries. This is from the North Sea and from the Lakes

The benefits of industrial development to the Netherlands

- Industrial development has facilitated the development of the transport sector. This is in terms of roads, railway lines, air and water transport. These connect the major industrial centers
- From the exports of the industrial products, the Netherlands is able to earn a lot of foreign exchange

- Industrial development has created many employment opportunities for the people of the Netherlands
- Today, the government of the Netherlands is able to earn a lot of internal revenue by taxing the existing industries
- Through exporting industrial/manufactured goods to other countries, the Netherlands has been able to improve her international relationship with those countries who import her industrial goods
- Industrial development in the Netherlands has led to the growth of many towns like Amsterdam, Rotterdam, the Hage, Groningen, Assen, and Maastricht.
- The industries in the Netherlands are able to manufacture goods which are bought cheaply by the people
- From the industrial centers the people are provided with many social services like hospitals, schools, clean water, power, and many recreational centers

The growth of cities and ports in the Netherlands

There are many cities in the Netherlands and mainly two major ports.

The table below shows the major cities in the Netherlands with their populations as of 2003

Ranking	City	Population
1	Amsterdam	1,536,300
2	Rotterdam	1,133,200
3	The Hague	699,300
4	Utrecht	610,800
5	Eindhoven	201,300
6	Tilburg	193,400
7	Almere	148,000
8	Groningen	168,500
9	Breda	160,000
10	Nijmegen	154,800
11	Enscheda	149,600
12	Apeldoorn	155,600

According to the table above there are many important cities in the Netherlands but the following are important to mention about.i.e Amsterdam and Rotterdam. These two are important because they are both cities and major ports of the Netherlands.

Amsterdam city/port

Amsterdam is the largest city of the Netherlands, it is located in the province of North Holland in the western parts of the country. Amsterdam is situated on the banks of river Amstel. The name Amsterdam is derived from Amstellerdam, this shows that the city started as Adam on river Amstel. Amsterdam was established after the damming of River Amstel with the objective of reducing the danger of flooding. Amsterdam developed as a trans-shipment point and thus as a port for the Netherlands.

Factors which led to the development of Amsterdam as a city and a port

- ➤ The location. The city developed because of its location on a river bank which was strategic for the fishing industry as it attracted many fishermen to settle here.
- > The river provided easy transport connection to the sea and to the outside world. This made Amsterdam to be a very important trading center.
- > The government policy which had the aim of improving on transport in the area in order to attract more traders.
- The development of trade here attracted more and more people to settle here.
- ➤ The choice of the government to make this the capital city and as a result it attracted more political activities here.
- There were large sums of capital which was invested for the development of the city and port facilities.
- There were many technical people who made a proper plan for the city.
- There is reliable source of power to be used in the city.
- Apart from water transport the city has got good road, railway, and air transport.

The functions of Amsterdam

Amsterdam has many functions in the economy of the Netherlands. Some of these are the following,

- ✓ Amsterdam is an administrative center. It is the capital city of the Netherlands.
- ✓ It is a trading center. It has been an international trading center for the world for a long time.
- ✓ It is an industrial center it is well known for manufacturing vehicles, aircrafts, it has textile industries, it also has many paper and printing industries.
- ✓ It is the major port for the Netherlands. Many ships from different parts of the world offload and load their goods here.
- ✓ It is a national distribution center for many commodities especially from the tropical countries e.g. tobacco, sugar, cocoa, coffee e.tc.
- ✓ It is an educational center with many universities e.g. there is the Amsterdam university, Vrije university, high institutions of learning like Amsterdam college.
- ✓ Amsterdam is a center for tourism. It receives and houses many tourists.it has many tourist attractions like the Netherlands museum, Royal palace, Canals Westerkerk (west church) and many others.
- ✓ It is a transport center with many roads and railway lines passing here.
- ✓ It is a residential center with many housing apartments for the inhabitants of the city.

Problems of Amsterdam and some of their solutions

❖ The city faces a problem of limited land for expansion. To manage this there is reclamation of more land to extend the city land. Also the city planners are encouraging the building of sky scrapers i.e. vertical expansion to make use of the available space.

- ❖ As the city is found on a low land area it is exposed to seasonal flooding. This problem is being managed by constructing storm surge barriers with slice gates from where they can control floods.
- ❖ There is a lot of pollution as a result of many vehicles and industries here. This problem is being minimized by reducing the number of cars coming into the city and encouraging the industries to adopt better ways of waste disposal.
- ❖ There are problems of high crime rate due to many people. This is being managed by having many police on the entire city.

Rotterdam city/port

This great port grew on a small river known as River Rotte. Its greatest growth resulted from the construction of the new water way. The port of Rotterdam handles both exports and imports. Rotterdam's imports consist of bulky goods such as oil and petroleum products, coal, iron ore, and agricultural products like tobacco, wheat, maize, coffee sugar and tropical hard woods.

The exports include mainly manufactured goods like vehicles, textiles, engines, chemicals, aircrafts parts, watches, electronics, agricultural machinery, flowers and foodstuffs.

The factors that favored the development of Rotterdam as a port and city

- > The location of the port as an entre-port to the countries served by River Rhine.
- ➤ The port is located in an area of deep water such that large ships can enter and leave the port easily.
- ➤ The relief of the area where the port is located is generally flat this made it easy for the construction of the transport network and buildings.
- ➤ The location of the port at the North Sea gives easy accessibility for many countries from different parts of the world.
- The port is not affected by winter freezing there for it is used throughout the year.
- > The port is well sheltered from the sea waves and storms.i.e. It is a well sheltered harbor.
- ➤ It is located in a place of low tidal range i.e. the level of the water does not change such that ships can load and offload the goods easily.
- ➤ The port has a rich hinterland. Rotterdam serves the countries of Switzerland, Germany, Belgium, Luxembourg, and the Netherlands herself.
- ➤ The port is connected to many countries by the Rhine waterway this makes the port easily accessible to the other Rhine lands countries.
- ➤ The development of many industries here have also contributed to its development.
- ➤ The port is also well connected to other areas by roads, and railway which makes it easily accessible to many parts of the country.
- > The high level of technology which enabled the construction of the new water way and several canals which provide a link between the port and the North Sea.
- > The government of the Netherlands provided some capital for its development.
- The port has modern port facilities which make the handling of goods easy.

The functions of Rotterdam

- ✓ It is a transit port. A transit port is where goods destined for other countries are handled.
- ✓ It is an industrial center e.g. it has industries like textiles, machinery, electrical appliances, oil refineries and many others.
- ✓ It is a communication center with good roads, railway lines, navigable rivers and various canals.
- ✓ It is a commercial center with many commercial activities.
- ✓ It is also the major fishing port for the Netherlands.
- ✓ It is the major naval base for the external security of the Netherlands.
- ✓ It is a tourist center for many tourists from within the Netherlands and different countries.
- ✓ It is also a residential center for many people who work here.

The problems facing the use of Rotterdam

- As Rotterdam is one of the busiest ports in the world there is a problem of congestion on the harbor.
- There are problems of environmental pollution on the port. This is from the industries, oil spillage from ships and noise pollution.
- There is silting of river channels especially river Maas and the new water way.
- There is limited land for expansion.
- There is a problem of overcrowding due to many people in the city and port.
- There is a problem of shortage of housing for the bog population and as a result slum development.
- There is high level of unemployment due to many people who come to the city/port.
- There are high costs of maintaining the port and port facilities.
- The problems of high crime rates which affect any city or town.
- There are problems of floods since the port is below sea level.
- There is a problem of poor visibility at the port during some season due to fog hence causing accidents for the ships using the port

The solutions to the problems facing the port of Rotterdam

- ♣ There is now vertical expansion of the port in order to minimize the problem of land shortage. This is done by building sky scrapers.
- ♣ There is emphasis on the treatment of waste to minimize the problem of pollution.
- ♣ To manage the problem of congestion on the port there is the practice of containerization to ensure swift handling and dispatch of cargo.
- ♣ There is regular dredging to minimize the problem of silting.
- ♣ The government has also continued to reclaim mare land from the sea and rivers to create room for expansion.
- ♣ The government takes the responsibility of building and re-building of dykes to control flooding.
- ♣ There is strict control of crime by strengthening the police force
- ♣ More and more industries are being developed to create more employment opportunities for the big population.

- ♣ The government bares the cost of maintaining the port and port facilities.
- The problem of poor visibility due to fog is being managed by encouraging the ships to use strong head lights and the radar system to avoid collusion