

# DEFINITION OF PORT

## WHAT IS PORT?

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**Port is a maritime commercial facility which may comprise one or more berths where ships may dock to load and discharge passengers and cargoes.**

**Wikipedia, the Free Encyclopedia**

# Types of Port

- **MANAGEMENT ASPECT**
- **NATIONAL AND INTERNATIONAL ASPECT**
- **USAGE ASPECT**

*Port Planning Handbook*

# MANAGEMENT ASPECT

## General Port

**General port is managed by the government which provide public interests.**

**In Indonesia, PT. Pelabuhan Indonesia (Pelindo) Persero, as public company, is delegated by the government to execute general port.**





# MANAGEMENT ASPECT

## Specific Port

**Specific port is managed by the public or private company which provide specific interests.**

**As the example, LNG Arun port which located in Aceh is used for shipping the product of liquid natural gas to other region.**



# **NATIONAL AND INTERNATIONAL ASPECT**

# NATIONAL AND INTERNATIONAL ASPECT

## Sea Port

**Sea port is the main port in a region which service the export and import shipment from domestic to foreign and vice versa.**

**There are more than a hundred of sea port in Indonesia. In the figure is Port of Tanjung Priuk.**





# NATIONAL AND INTERNATIONAL ASPECT

## Beach Port

**Beach port is the main port in a region which service the domestic logistic shipment vice versa. Port of Sendang Biru is one of beach port in Indonesia.**



**USAGE ASPECT**



# USAGE ASPECT

## Oil Port

Oil port is deep water port specially equipped to receive, store, and load and offload oil, and able to accommodate giant tankers.



# USAGE ASPECT

## Passenger Port

Passenger port is used for people who will travel in a long distance.

There is passenger station which consist of passenger boarding, shipping office, ticket sales, mushola, toilet, immigration office, security office, port direction office, customs duty office etc.



# Port Infrastructure

- MAIN PORT FACILITIES
- PORT TRAFFIC FACILITIES
- CARGO SORTING AREAS
- STORAGE FACILITIES
- PASSENGER FACILITIES

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# MAIN PORT FACILITIES

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## Wharf Structures

Wharf structures are the port structure which has main purpose to provide a vertical front where ships can berth safely for loading and unloading passengers and or cargoes.



# MAIN PORT FACILITIES

## Breakwaters

**Breakwaters are structures constructed near the coasts as part of coastal management which reduce the intensity of wave action in inshore waters and thereby reduce coastal erosion or provide safe harbour.**





# MAIN PORT FACILITIES

## Navigational Channels

Navigation channels are the arteries through which economic prosperity flows, providing access to deep draft ships in coastal channels and shallow draft tows in inland waterways.



# MAIN PORT FACILITIES

## Turning Basins

Turning basins are the wider body of water, either located at the end of a ship canal or in a port to allow cargo ships to turn and reverse their direction of travel, or to enable long narrow barges in a canal to turn a sharp corner.





# MAIN PORT FACILITIES

## Mooring Facilities

**Mooring facilities are used for safely securing the ship at the wharf structure.**





# PORT TRAFFIC FACILITIES

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## Roads

The structure of roads are mainly used for pedestrian and vehicles. The characteristic of peak traffic volume of the roads in port can be estimated using the past traffic data in ports.



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# PORT TRAFFIC FACILITIES

## Car Parks

Car parks are cleared area in port that is intended for parking vehicles. The size and location of car park shall be determined according to the traffic generated in port and the condition of roads in the vicinity.



# PORT TRAFFIC FACILITIES

## Tunnels

**Tunnels as port facilities include road tunnels or railway tunnels. In port of Amsterdam, the tunnel was built for pedestrians and cyclists access.**





# PORT TRAFFIC FACILITIES

## Trestles

Trestles are structure which used for as a ship docking. In a sloping beach location, trestle was built to the depth needed.





# CARGO SORTING FACILITIES

## Cargo Sorting Area

Cargo sorting area is a place within a port or terminals where cargo are stored before it is loaded on the ship in the case of exports or unloaded from the ship in the case of imports.



# CARGO SORTING FACILITIES

## Cargo Handling Equipment

Cargo handling equipment used for loading/unloading cargo to/from the ship: e.g. cargo cranes, side-loading system with conveyors, sideshifters, elevators, belt conveyors, ro-ro cargo handling cranes and cargo pumping systems.



# STORAGE FACILITIES



# STORAGE FACILITIES

## Warehouse

Cargo delivered from local or nonlocal destinations may be stored temporarily at a warehouse or consolidated with other cargo bound for export. Cargo may also be transferred from domestic truck trailers to marine shipping containers at this facility.



# STORAGE FACILITIES

## Open Storage Yard

The cargoes that have been unloaded from the ship are sorted in open storage yard before temporarily stored in warehouse. Open storage yard is also as cargoes temporarily storage before cargoes loading process to the ship.



# PASSENGER FACILITIES



# PASSENGER FACILITIES

## Passenger Boarding

Passenger boarding is the entry of passengers onto a ferry. In ferry ship, boarding onto the watercraft can be done while it is located in harbour or at sea.



# PASSENGER FACILITIES

## Passenger Building

**Passenger building is structure in the port where ferries and possibly cruise ships pick up and drop off passengers.**

