

Transportation Statistics

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Introduction

Importance of transportation sector and its role in economy:

The role that transportation sector plays on economic, social and urban levels of each country cannot be overlooked or condoned as the growth and prosperity which are being achieved in this sector extends their influence to include all other sectors, and thus there is a strong correlation between the growth that is happening in this sector and the growth of economic activity of the country as a whole and all of this is reflected in the large contribution of this sector in GDP growth and in increasing the financial returns of the state, whether directly or indirectly. The contribution of the transportation sector in economic development is reflected in the following:

1. It helps effectively in linking production areas to consumption areas, secure movement of people and transport of raw materials and goods from investment zones,
2. It is considered a contributing factor in the exploitation of natural resources, especially metals and minerals, which presence is often concentrated in far and sparsely populated areas,
3. Labor employment and provide employment opportunities for a large segment of the population, whether it's in the same field of transportation or in other areas associated with or affected by its evolution (to solve the problem of unemployment which has a social impact).

transportation industry is the main pillar that underpin the development programs of the state because of the master role and evident influence this industry has in the development of peoples in all economic, social and cultural fields, whether in developed or developing countries; as the development of the countries can be measured by the progress of its transportation means and systems. The transportation sector's contributions to economic and social growth of any country are reflected in the following matters:

- Choice of resettlement places for industries that provide the national economy the biggest benefits represented in reducing production, transportation and distribution expenses,
- Discovery and exploitation of natural resources in the best circumstances,
- Expanding agriculturally exploited land area,
- Growth and prosperity of cities and urban centers,

- Achieving balance between the supply of and demand for goods in various domestic and overseas markets,
- Achieving economic integration between the countries and their economic, social and cultural coalition.

The transport of passengers and goods is considered from the main tasks of transportation in each country. Transportation development had a significant impact in reducing the final product cost on which the cost of transport is considered one of the most influential elements and some economic studies carried out in this regard shows that the transport costs represent on average almost 20% from the final cost of any product and hence comes the importance of the study of transportation economics, which aims to reduce the cost of the transport element and then the final product cost as reducing transportation cost by 10%, for example, leads to a reduction of the final product cost by approximately 2%, and this percentage can be increased in the future. It is known that the most productive projects in the world are road construction and paving projects because of what they achieve of economic resources, and therefore any amount spent on constructing, paving and expanding road network has a direct and fast return on reducing the cost of transport and thus economic growth. The roads have become particularly important through the important role they play in economic, social and cultural development, as well as it is one of the most key structures upon which depend development plans in each country, and these roads have contributed, with the improvement of transport means, to facilitate the movement and transition process, reduce transportation costs, reduce traffic accidents rate and severity which in turn leads to reducing injuries and material losses.

Therefore, countries are seeking to the capital expenditure on this sector because of its significant impact on the national economies in terms of Community Development in the economic, social, employment and education and stimulating industries and exports and foreign currency reserves sides and others.

Transport and communication at current prices 2012/2002...

Transport and communication at constant prices 2012/2002...

The Capital Expenditure of the Country:

	2013-2014	2012-2013	2011-2012	2010-2011	2009-2010	2008-2009	2007-2008	2006-2007	2005-2006	2004-2005
Capital Expenditure	2,284.65	2,229.32	2,299.20	2,233.73	1,493.13	1,523.03	1,200.05	920.88	829.81	731.79
Total Expenditure	15,831.71	16,306.33	14,096.14	14,206.11	10,314.85	11,754.34	8,946.66	7,692.91	6,100.72	5,643.98
Total Income	35,437.18	35,035.04	32,233.82	23,387.20	19,669.71	23,025.58	21,347.39	17,926.00	16,401.65	10,791.66
Capital Expenditure proportion from Expenditure	0.14	0.14	0.16	0.16	0.14	0.13	0.13	0.12	0.14	0.13
Capital Expenditure proportion in Income	0.06	0.06	0.07	0.10	0.08	0.07	0.06	0.05	0.05	0.07

Economic Transformations:

The economic transformations were associated to a range of technical inventions witnessed by the energy and transport field (the steam hammer and the locomotive, in the field of mining: aluminum chemically production, in addition to several other inventions such as telephone and dynamite).

Industrial Transformations:

The industry development in the world began from being a simple hand craft into a work by a simple manual machine to the work in laboratories, workshops and factories then to small plants and large factories as well as it evaluated from individual works to a collective institutional action which organize the management, labor, parts and stages of production, research and studies to race and compete in the creations and industries.

Its development:

Capitalist development during the nineteenth century:

The past era was characterized by the accumulation of money by taking advantage of the new world resources in addition to the development of cities and the increasing cash transactions and the emergence of banks and the freedom of trade exchange.

Institutional Transformations:

The institutional concept had witnessed a shift from individual work, then grouping then institutions and companies all the way to the incorporations (integration of a group of institutions or companies in one institution or company).

Labor development:

The development of work in the employment is synchronized with the development of economic transformations from office expertise through a regular practice to organizational study and a variety of different disciplines, the lack of multiple aspects of air - land - sea transport and others.

Methodologic issues:

1. International Economic Definitions and Concepts:

- Production.
 - Goods and services produced by the establishment production operations.
- Intermediate consumption.
 - The value of goods and services that are consumed as inputs of the production process.
- Value Added.
 - The value that arise (on goods or services) from the production process
- Fixed assets.
 - Are machinery, equipment, facilities, furniture, trees and animals that are used repeatedly for the production and also include computer programs and others.

- Depreciation.
 - A decrease in the value of fixed assets used in production during a prescribed period of accounting.
- Labor.
 - The average number of employed persons during a certain period and persons working outside the project but are affiliated in and get paid from it directly.
- Compensation of employees.
 - Total cash and in-kind amounts payable by employers in a project to the workers in exchange for the work they perform during a specific accounting period. (Does not include taxes and are considered as production taxes.)
- Fixed Capital Formation.
 - The total of fixed assets that a facility is holding minus the fixed assets from which drawn down during a specific period of accounting.
- Institution.
 - Institutional unit or the smallest total of the institutional units which includes directly or indirectly and controls the functions necessary to carry out its productive activities.
- Residence.
 - The economy consists of all resident institutional units and is divided into sectors.
- Project.
 - Institutional unit or the smallest combination of institutional units, which includes and controls directly or indirectly the functions necessary for the implementation of its productive activities.
 - The project requirements are that it has a single ownership. However, it may be externally in terms of economic activity in addition to its location.
- Facility.
 - A project or part of a project located at a single site where one type of non-assisted productive activity only is undertaken or where the principal activity revert to the most value added.

2. The basic concepts and definitions of transport statistics.

The transport is defined as the movement system of people and goods including facilities and means necessary to do so, and the movement of people is the most important especially within cities by linking the relationship between population and land use, but also, the transfer of goods from their sources to their marketing and use places is no less important in the field of development and economic growth. The basic function of transportation is reflected in providing a link between home, workplace, school or university. Also, in addition to the social communication trips between people, shopping, hiking and many other reasons that necessitate the movement of persons in accordance with the overall concept for the supply, transport means moving materials and goods from suppliers to the project and from the project to the customers.

The transfer function in the physical distribution is a function of the creation of spatial benefit to the consumer by transporting goods from the places of production to the places of consumption (markets).

Transport Types:

- **Railway transport:** it occupies relatively the first importance among transportation in terms of the amount of goods transported

Advantages: the ability to transport large quantities of goods, low cost.

Disadvantages: do not serve all regions, slow

- **Land transport (road):** includes transportation with all cars, large and small trucks types. Its reliability has increased with the progress in the construction of roads.

Advantages:

- Flexibility (shipping goods to anywhere)
- Speed
- Possibility of transferring small shipments

Disadvantages:

- The high cost (5 times of the transport by train - 20 times of the transport by ships)
- Because of its high cost, its use is limited on small or high-value shipments or to nearby places

- **Pipelines transport:** pipes are used in the transport of liquid commodities like oil or gas such as natural gas.

Advantages:

- Lower cost of transport
- Ability to transport massive amounts
- Protection of transported goods from damage or loss

Disadvantages:

- Requires significant investment to build pipelines
- Limited to liquid or gaseous goods

- **Water transport (maritime):** includes sea and river transport, using ships that carry globally about 15% of the goods.

Advantages:

- Lower transport cost (compared to the other means)
- Ability of transporting huge amounts of goods

Disadvantages:

- Long lead of transition process period
- Far distance of the ports from the commercial centers
- Being affected by weather conditions and the state of the seas and rivers

- **Air Transport:** Depending on the aircrafts,

Advantages:

- Speed in the transport of goods (compared to the other means)
- Transport of light weight or high-value or perishables goods like flowers
- Transport about 1% of the goods.

Disadvantages:

- High cost (20 times of the transport by rail - 3 times of the transport by Truck)
- Limited ability for market coverage (requiring the availability of Airports)

3. International Statistical Standards:

- Glossary of Transport Statistics (fourth edition),

The Glossary for Transport Statistics was published for the first time in 1994 with the purpose of assisting member countries during the collection of data on transport using the Common Questionnaire developed by the UNECE, ITF and Eurostat.

The present fourth edition is the result of continuing valuable cooperation between the three organizations, that – through the action of the Inter-secretariat Working Group (IWG. Trans.) – has put a sustained effort into meeting the need to harmonize transport statistics at the international level. The Glossary now comprises 735 definitions and represents a point of reference for all those involved in transport statistics. By following the guidance contained within these definitions, a considerable contribution will be given to the improvement in both the quality and comparability of the data.

In this fourth edition, the rail, road, inland waterway, pipelines and intermodal chapters have been substantially revised. A new air transport chapter has been added. In rail, the revision takes account of the changing environment facing rail operators, especially in Europe. In addition, a completely new rail accidents section has been added. The road and inland waterway chapters have also benefited from a thorough revision to reflect current concerns. For the inland waterway chapter, an accident section has been added. The pipeline chapter has been extended to cover gas as well as oil pipelines, given their growing importance in supplying the energy market. The new air transport chapter follows the guidance given by ICAO but with some extra input from IATA and ACI. All three bodies were consulted during the preparation of the chapter and provided useful feedback.

- Standardized questionnaire:

Three organizations namely: the United Nations Economic Commission for Europe and the International Federation of Transport and Eurostat have resorted to design a common form related to transport to unify the concepts and facilitate the process of data collection between the states and to compare and get the results to assess the transport sector.

Transport data that are collected each year and compared through the common questionnaire are available for nearly 60 countries all over the world. The questionnaire serves to compile annual data on rail transport, road transport, inland waterways, pipelines transport (oil and gas), sea and air transport.

The questions and variables change within the form according to mentioned transport modes and cover specific aspects of equipment, infrastructure, traffic and companies and their economic performance.

International Standard Industrial Classification of All Economic Activities (fourth revision)

Section H

Transportation and Storage

This section includes the provision of passenger or freight transport, whether scheduled or not, by rail, pipeline, road, water or air and associated activities such as terminal and parking facilities, cargo handling, storage etc. It includes the renting of transport equipment with driver or operator and also postal and courier activities.

This section excludes maintenance and repair of motor vehicles and other transportation equipment, the construction, maintenance and repair of roads, railroads, harbors, airfields, as well as the renting of transport equipment without driver or operator.

49 - Land transport and transport via pipelines

This division includes the transport of passengers and freight via road and rail, as well as freight transport via pipelines.

491 - Transport via railways

492 - Other land transport

This group includes all land-based transport activities other than rail transport. However, rail transport as part of urban or suburban transport systems is included here.

493 - Transport via pipeline

50 - Water transport

This division includes the transport of passengers or freight over water, whether scheduled or not. Also included are the operations of towing or pushing boats, excursion, cruise or sightseeing boats, ferries, water taxis etc. Although the location is an indicator for the separation between sea and inland water transport, the deciding factor is the type of vessel used. All transport on sea-going vessels is classified in group 501, while transport using other vessels is classified in group 502.

This division excludes restaurant and bar activities on board ships (see class 5610, 5630), if carried out by separate units.

501 - Sea and coastal water transport

502 - Inland water transport

This group includes the transport of passengers or freight on inland waters, involving vessels that are not suitable for sea transport.

51 - Air transport

This division includes the transport of passengers or freight by air or via space.

This division excludes the repair of aircraft or aircraft engines (see class 3315) and support activities, such as the operation of airports, (see class 5223). This division also excludes activities that make use of aircraft, but not for the purpose of transportation, such as crop spraying (see class 0161), aerial advertising (see class 7310) or aerial photography (see class 7420).

511 - Passenger air transport

512 - Freight air transport

52 - Warehousing and support activities for transportation

This division includes warehousing and support activities for transportation, such as operating of transport infrastructure (e.g. airports, harbors, tunnels, bridges, etc.), the activities of transport agencies and cargo handling.

53 - Postal and courier activities

This division includes postal and courier activities, such as pickup, transport and delivery of letters and parcels under various arrangements. Local delivery and messenger services are also included.

Development of the economic activity classification in the field of transport:

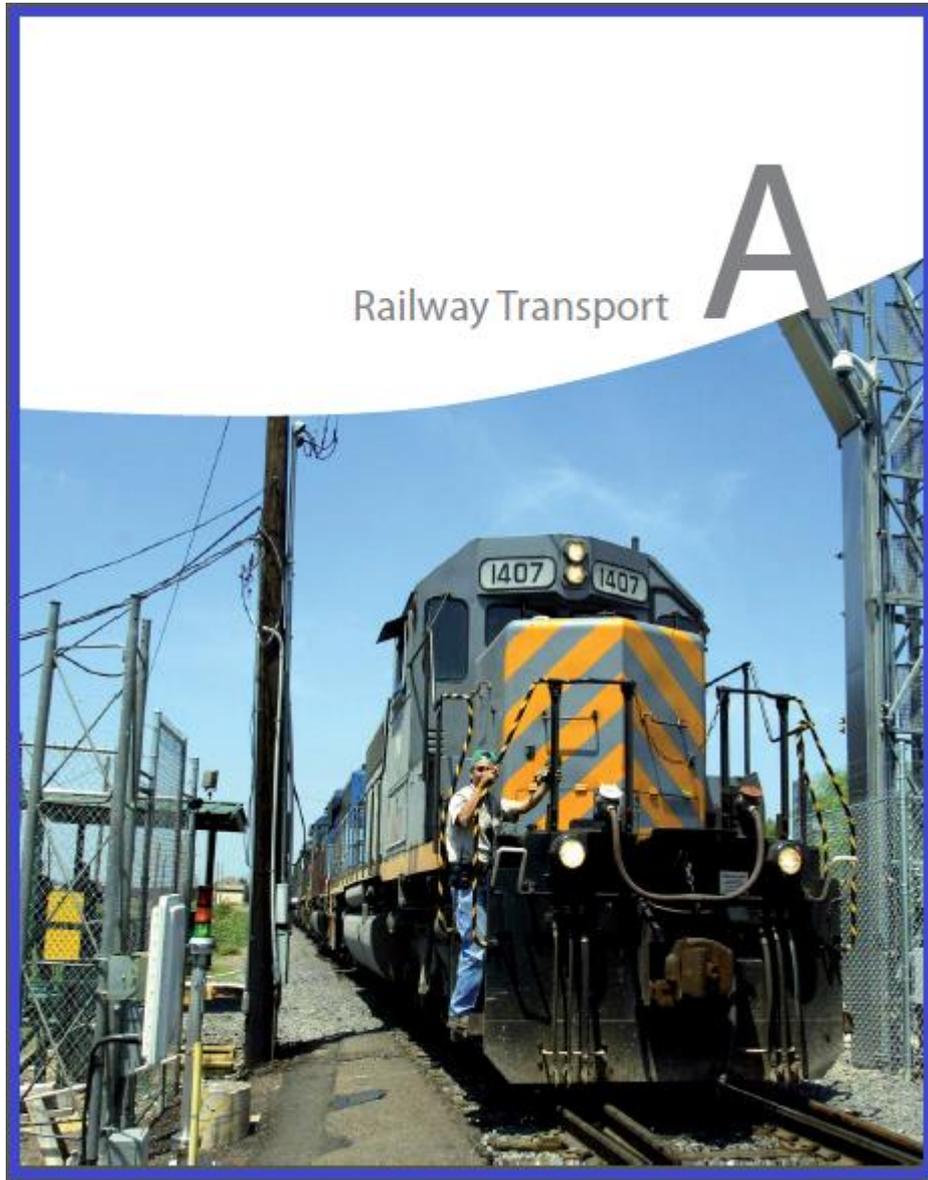
ISIC	RV2	RV3	RV4	
Third limit transport activity	3	7	7	
Fourth limit transport activity	12	15	12	
Third limit storage	1	Within other transports	2	
Fourth limit storage	—	2	6 same third	
Third limit communication activity	1	2	4	
Fourth limit communication activity	—	3	4	

4. Measurement Threads for Transportation Statistics:

The states issue statistics by transportation types which will be displayed according to the following topics :

- ✚ Infrastructure .
- ✚ Transportation equipment .
- ✚ Energy consumption .
- ✚ Safety and Security.

RAILWAY TRANSPORT



Railway Transport Measuring Threads:

- **Infrastructure,**
- **Equipment: (Vehicles, Containers).**

1. Infrastructure:

Track (Train track on railways): A pair of rails over which rail borne vehicles can run.

Track gauge: Distance between a pair of rails measured between the inside edges of the rail heads.

The following track gauges are in use:

- Standard gauge: 1.435 m
- Large “broad” gauge: 1.520 m, 1.524 m, 1.600 m and 1.668 m
- Narrow gauge: 0.60 m, 0.70 m, 0.75 m, 0.76 m, 0.785 m, 0.90 m, 1.00 m.

Running track: A track providing end-to-end line continuity designed for trains between stations or places indicated in tariffs as independent points of departure or arrival.

Line: One or more adjacent running tracks forming a route between two points. Where a section of network comprises two or more lines running alongside one another, there are as many lines as routes to which tracks are allotted exclusively.

Private siding: A track or set of tracks which are not managed by the infrastructure manager but are linked up with the track of an infrastructure manager so that:

- a) Railway transport operators or supportive functions can perform necessary activities.
- b) Industrial, commercial or port, etc. establishment or group of establishments can be served by rail without trans-shipment.

Electrified track: A track provided with an overhead catenary or a conductor rail to permit electric traction.

Electrified line: Line with one or more electrified running tracks. Sections of lines adjacent to stations that are electrified only to permit shunting and not electrified as far as the next stations are to be counted as non-electrified lines.

Tramline: A railway mainly installed on and well integrated into the urban road system. The tramcars are powered either electrically or by diesel engine, particularly for special rail borne road vehicles (trolley car).

Railway network: All railways in a given area.

This does not include stretches of road or water even if rolling stock is conveyed over such routes, e.g. by wagon carrying trailers or ferries.

Lines solely used for tourism are excluded as are railways constructed solely to serve mines, forests or other industrial or agricultural undertakings and which are not open to public traffic.

Conventional railway line: All railway lines that are not classified as «dedicated high speed lines» or «upgraded high speed railway lines».

Dedicated high speed railway line: A line specially built to allow traffic at speeds generally equal to or greater than 250 km/h for the main segments. High speed lines may include connecting lines, in particular connecting segments into town center stations located on them, on which speeds may take account of local conditions.

Upgraded high speed railway line: A conventional line specially upgraded to allow traffic at speeds of the order of 200 km/h for the main segments. They include specially upgraded high speed lines which have specific features as a result of topographical, relief or town-planning constraints.

Length of lines operated: The total length of line operated for passenger transport, goods transport, or both. When a line is operated simultaneously by several railway enterprises it will be counted only once

2. Equipment:

Railway vehicle: Mobile equipment running exclusively on rails, moving either under its own power (tractive vehicles) or hauled by another vehicle (coaches, railcar trailers, vans and wagons).

The following vehicles are included in the statistics for a railway enterprise:

- All railway vehicles belonging to the railway enterprise and hired by it and actually at its disposal, including those under or waiting for repair, or stored in working or non-working-order, and foreign vehicles at the disposal of the enterprise and vehicles of the enterprise temporarily abroad and engaged in the normal course of running
- Private owners' wagons, i.e. those not belonging to the railway enterprise but authorized to be operated by it under specified conditions, together with wagons hired out by the railway enterprise to third parties and being operated as private owners' wagons.

Statistics for a railway enterprise exclude vehicles not at its disposal, i.e.

- Foreign vehicles or vehicles not belonging to the railway enterprise circulating on the railway network
- Vehicles which are on hire to, or otherwise at the disposal of, other railway bodies

- Vehicles reserved exclusively for service transport condemned or intended for sale or, breaking-up.

Train: One or more railway vehicles hauled by one or more locomotives or railcars, or one railcar travelling alone, running under a given number or specific designation from an initial fixed point to a terminal fixed point.

Types of train: The main categories being considered are:

- Goods train: Train for the carriage of goods composed of one or more wagons and, possibly, vans moving either empty or under load
- Passenger train: Train for the carriage of passengers composed of one or more passenger railway vehicles and, possibly, vans.
- Other trains: Trains moving solely for the requirements of the railway enterprise, which involve no payments to third parties.

3. Traffic:

Railway traffic	Any movement of a railway vehicle on lines operated.
Railway traffic on national territory	Any movement of railway vehicles within a national territory irrespective of the country in which these vehicles are registered.
Shunting	Operation of moving a rail vehicle or set of rail vehicles inside a railway station or other railway installations (depot, workshop, marshalling yard, etc.).
Passenger rail transport link - passenger journey	The combination between the place of embarkation and the place of disembarkation of the passengers conveyed by rail whichever itinerary is followed on the railway network.
Railway vehicle journey	Any movement of a railway vehicle from a specified point of origin to a specified point of destination.

Main Indicators:

Goods carried by railways	Million Tons - Km	Goods carried by railways are the volume of goods carried by railways measured in metric tons multiplied by the traveled kilometers.
Passengers conveyed by railways	Million Passenger - Km	Passengers conveyed by railways are total transported passengers by railways multiplied by traveled kilometers.

Tractive vehicle - kilometer	Unit of measurement representing any movement of an active tractive vehicle over a distance of one kilometer.
Hauled vehicle - kilometer	Unit of measurement representing any movement of a hauled vehicle over one kilometer.
Wagon-kilometer	Unit of measurement representing any movement of a wagon loaded or empty over a distance of one kilometer
Seat-kilometer offered	Unit of measurement representing the movement of one seat available in a passenger railway vehicle when performing the services for which it is primarily intended over one kilometer.
Gross-gross ton -kilometer hauled	Unit of measurement representing the movement over a distance of one kilometer of one ton of railway vehicle where the weight of tractive vehicle is included.

Other Statistics:

Rail network density: The total length of railway lines in kilometers, in a particular country, in every thousand square kilometers of the total area of this country.

Wagon carrying capacity: The carrying capacity of wagon is the maximum authorized weight it can carry.

Age of railway vehicle: Years since first registration of a railway vehicle, irrespective of the country of registration.

In case a wagon is available on the railways transferred to another, the carrier vehicle movement (mobile factor) is only taken into account.

Rail passenger: Any person, excluding members of the train crew, who makes a journey by rail. Passengers making a journey solely by railway operated ferry or bus services are excluded.

Goods carried by rail: Any goods moved by rail vehicles. This includes all packaging and equipment, such as containers, swap-bodies or pallets as well as road goods vehicles carried by rail.

Rail passenger - kilometer (pkm): Unit of measurement representing the transport of one rail passenger by rail over a distance of one kilometer. The distance to be taken into consideration should be the distance actually travelled by the passenger on the network. To avoid double counting each country should count only the pkm performed on its territory. If this is not available, then the distance charged or estimated should be used.

ROAD TRANSPORT

Road Transport



Definition:

Transport on roads and combines between the following means:

- Passenger cars,
 - Commercial vehicles (light and heavy).
 - Any movement of goods and / or passengers by vehicles in the specific road network (Glossary of Transport Statistics, Second Edition, Eurostat, United Nations and Economic Commission for Europe, p. 78).
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- In the field of economic activities it is considered as an activity organized on the road and includes people and goods.
 - An economic vision: It is the most expensive private activity through consumption of petroleum products.
 - An environmental vision: the infrastructure it requires contributes to the fragmentation of the ecosystem (forest and mountains division, the killing of animals ...) as well as being a key component of pollution and gas emissions (ranked first in the EU in pollution: Census 2008)

Road transport measuring threads:

- Infrastructure
- Equipment: (Vehicles, Containers),

Infrastructure:

Road:

Line of communication (travelled way) open to public traffic, primarily for the use of road motor vehicles, using a stabilized base other than rails or air strips.

Included are paved roads and other roads with a stabilized base, e.g. gravel roads. Roads also cover streets, bridges and tunnels, supporting structures, junctions, crossings and interchanges. Toll roads are also included. Excluded are dedicated cycle lanes.

Carriageway:

Part of the road intended for the movement of road motor vehicles; the parts of the road which form a shoulder for the lower or upper layers of the road surface are not part of the roadway, nor are those parts of the road intended for the circulation of road vehicles which are not self-propelled or for the parking of vehicles even if, in case of danger, they may occasionally be used for the passage of motor vehicles.

The width of a carriageway is measured perpendicularly to the axis of the road.

Roads are categorized according to three internationally comparable types:

A. Motorway / freeway Road,

Specially designed and built for motor traffic, which does not serve properties bordering on it, and which:

- 1) Is provided, except at special points or temporarily, with separate carriageways for traffic in two directions, separated from each other, either by a dividing strip not intended for traffic, or exceptionally by other means
- 2) Has no crossings at the same level with any road, railway or tramway track, or footpath
- 3) It is especially sign-posted as a motorway and is reserved for specific categories of road motor vehicles.

B. Road inside a built-up area: (urban road)

Road within the boundaries of a built-up area, with entries and exits sign-posted as such.

C. Other roads: Road outside a built-up area.

Other definitions:

Infrastructure : Types of roads covered by the statistics	
Paved road	Road surfaced with crushed stone (macadam) with hydrocarbon binder or bituminized agents, with concrete or with cobblestone.
Unpaved road	Road with a stabilized base not surfaced with crushed stone, hydrocarbon binder or bituminized agents, concrete or cobblestone.
Lane	One of the longitudinal strips into which a carriageway is divisible, whether or not defined by longitudinal road markings, which is wide enough for one moving line of motor vehicles other than motor cycles.
Bus Lane	Part of a carriageway designated for buses and distinguished from the rest of the carriageway by longitudinal road markings.

Tram line	Line of communication made up by a pair of rails designed for use by trams (street-cars).
(Bi) cycle Lane	Part of a carriageway designated for cycles and distinguished from the rest of the carriageway by longitudinal road markings. Mopeds may also be allowed to use a cycle lane.

Equipment:

Vehicles

Definition: A vehicle running on wheels and intended for use on roads. (All vehicles running on wheels).

These vehicles can be classified according to the type of energy used in engines, including:

- Gasoline
- Diesel
- Carbonated energy
- Electricity and others.

Road motor vehicle: A road vehicle fitted with an engine whence it derives its sole means of propulsion, which is normally used for carrying persons or goods or for drawing, on the road, vehicles used for the carriage of persons or goods.

Passenger road vehicle: A road vehicle designed, exclusively or primarily, to carry one or more persons.

Goods road vehicle: Classification of goods road vehicles by types of their superstructures. The following classification of types of bodies of goods road vehicles is considered:

- Ordinary open box
 - o With cover
 - o Flat
- Tipper
- Tanker
 - o Solid bulk
 - o Liquid bulk

- Temperature controlled box
- Other closed box
- Skeletal container and swap-body transporter
- Livestock transporter
- Others.

Hauling vehicles: Vehicles equipped with a driving force and engine or an engine only. Used to haul other vehicle (locomotive) or to push or haul another vehicle, also to transport passengers and/or goods as well ("self-driven vehicle).

Special purpose road motor vehicle: Road motor vehicle designed for purposes other than the carriage of passengers or goods.

Refrigerated vehicles: vehicles of insulating type using a source of cooling (natural snow whether mixed with salt or without or molten plates or dry ice, both with the ability to control the escalation or not, or liquefied gases, whether with or without steam control, etc...) other than the mechanical unit.

Container: Special box to carry freight, strengthened and stackable and allowing horizontal or vertical transfers.

Types of container	The main types of containers, as defined by ISO Standards Handbook on Freight Containers are:	Glossary for Transport Statistics, Second Edition, Eurostat, United Nations Economic Commission for Europe, p. 168.
	1. General purpose containers	
	2. Specific purpose containers	
	- Closed ventilated container	
	- Open top container	
	- Platform based container open sided	
	- Platform based container open sided with complete superstructure	
	- Platform based container open sided with incomplete superstructure and fixed ends	
	- Platform based container open sided with incomplete superstructure and folding ends	
	- Platform (container)	
	3. Specific cargo containers	
	- Thermal container	

	- Insulated container	
	- Refrigerated container - (expendable refrigerant)	
	- Mechanically refrigerated container	
	- Heated container	
	- Refrigerated and heated container	
	- Tank container	
	- Dry bulk container	
	- Named cargo container (such as automobile, livestock and others)	

Sizes of containers:

Sizes of containers	The main sizes of containers are: a) 20 Foot ISO container	Glossary for Transport Statistics, Second Edition, Eurostat, United Nations Economic Commission for Europe
	<ol style="list-style-type: none"> 1. 20 Foot ISO container (length of 20 feet and width of 8 feet) 2. 40 Foot ISO container (length of 40 feet and width of 8 feet. 3. Super high cube container (oversize container) 4. Air container (container conforming to standards laid down for air transportation). <p>Containers sizes classified under 1- to 2- are referred to as large containers.</p>	

Traffic:

General Concepts:

- **Road transport:** Any movements of goods and/or passengers using a road vehicle on a given road network.
- **Urban road transport:** Transport carried out on urban roads or tramways
- **International road transport:** Road transport between a place of loading/embarkation or unloading/disembarkation in the reporting country and a place of loading/embarkation or unloading/disembarkation in another country.

- **National road transport:** Road transport between two places (a place of loading/embarkation and a place of unloading/ disembarkation) located in the same country irrespective of the country in which the road motor vehicle is registered. It may involve transit through a second country.
- **Road cabotage transport:** Road transport within a country other than the registration country, performed by a road motor vehicle registered in the reporting country
- **Road transit transport:** Road transport through a country between two places (a place of loading and a place of unloading) both located in another country or in other countries provided that the total journey within the country is by road and that there is no loading and unloading in that country
- **Cross-trade road transport:** Road transport performed by a road motor vehicle registered in one country between a place of loading/ embarkation in a second country and a place of unloading/disembarkation in a third country.

Survey areas:

Place of embarkation (road transport): The place taken into account is the place where the passenger boarded a road vehicle to be conveyed by it.

Place of disembarkation (road transport): The place taken into account is the place where the passenger alighted from a road vehicle after having been conveyed by it.

Place of loading (road transport): The place taken into account for loading is the place where the goods were loaded on a goods road motor vehicle or where the road tractor has been changed.

Place of unloading (road transport): The place taken into account is the place where the goods were unloaded from a goods road motor vehicle or where the road tractor has been changed.

Road passenger transport link: The combination of the place of embarkation and the place of disembarkation of the passengers conveyed by road whichever itinerary is followed.

Goods road transport link: The combination of the place of loading and the place of unloading of the goods transported by road whichever itinerary is followed.

Entreprise concept:

Road transport enterprise: Enterprise carrying out in one or more places activities for the production of road transport services using road vehicles and whose main activity according to value added is road transport.

Road passenger transport: enterprise Road transport enterprise offering and performing services in the transport of one or more persons (passengers), not including the driver, and whose main activity in the field of road transport, according to value-added, is road passenger transport.

Urban road passenger enterprise: Road passenger transport enterprise performing urban, metropolitan or similar scheduled or non-scheduled transport services within the boundaries of one or more built-up areas and whose main activity in the field of road passenger transport, according to value-added, is urban road passenger transport

Road goods transport: enterprise Road transport enterprise offering and performing services in the transport of goods, whose main activity in the field of road transport, according to value-added, is road goods transport.

Public road transport enterprise: Road transport enterprise which is principally owned (more than 50 % of the capital) by the State or public authorities and their enterprises.

Related to goods:

Goods carried by road Any goods moved by road goods vehicles.
Goods having entered the country by road (other than goods in transit by road throughout) Goods which, having been loaded on a road vehicle in another country, entered the country by road and were unloaded there.
Goods having left the country by road (other than goods in transit by road throughout) Goods which having been loaded on a road vehicle in the country, left the country by road and were unloaded in another country.
Goods loaded Goods placed on a road vehicle and dispatched by road
Goods unloaded Goods taken off a road vehicle after transport by road.

Measurement:

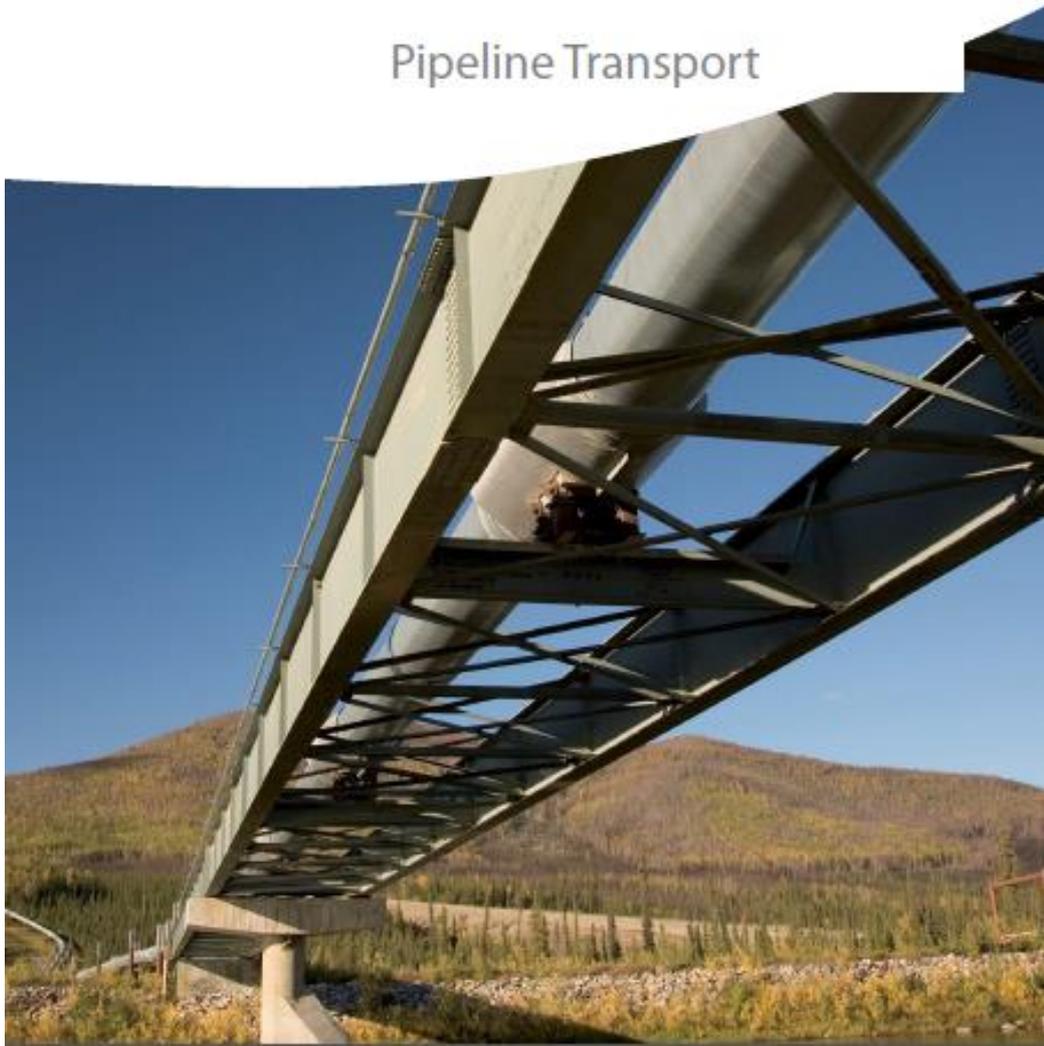
- Road passenger-kilometer Unit of measurement representing the transport of one passenger by road over one kilometer.
- Tonne - kilometer by road Unit of measurement of goods transport which represents the transport of one tonne by road over one kilometer.
- Tonne - kilometer (road transport): Unit of measurement representing the movement of one tonne available in the vehicle of transport of goods at a distance of one kilometer.
- Weight (road transport) :Gross-gross weight of goods

Main transport sector indicators:

- **Contribution to the GDP.**
- **Contributing to the overall productivity of the economy.**
- **Contributing to the gross value added of the transport sector.**
- **Contributing to the compensation of employees.**
- **Local intermediate consumption rate* for road transport sector of the total consumption.**
- **Contributing to the number of employees.**
- **Contribution to time exports.**

PIPELINE TRANSPORT

Pipeline Transport



Pipeline transport: Any movement of crude or refined liquid petroleum products or gases in a given pipeline network.

Oil pipelines: pipes for the transport of refined or crude liquid petroleum products through pumping.

Oil and gas pipelines: a closed pipeline network with pumps, valves and control systems for the transport of liquids, gases or accurately fragmented solids by pumping or pressure.

Units that are actually active during the reference period are to be accounted. "Sleeper" cells or those units that have not yet started its activity are excluded.

Pipeline Facility: New and existing piping, rights-of-way, and any equipment, facility, or building used in the transportation of gas, hazardous liquids, or carbon dioxide, or in the treatment of gas during the course of transportation.

In general, pipelines can be classified in three main categories depending on their main purpose. The categories are as follows:

- 1. Gathering Pipelines:** Group of smaller interconnected pipelines forming complex networks with the main purpose of bringing crude oil or natural gas from several nearby wells to a treatment plant or processing facility. In this group, pipelines are usually short, couple of hundred of meters, and with small diameters. Also sub-sea pipelines for collecting product from deep water production platforms are considered gathering systems.
- 2. Transportation Pipelines (Trunk pipelines):** Mainly long pipes with large diameters, moving products (oil, gas, refined products) between cities, countries and even continents.

These transportation networks include several compressor stations in gas lines or pump stations for crude and multi-product pipelines. Branch lines, where they satisfy the requirements for transportation pipelines, are included as well as pipelines between the land and drilling platforms at sea. Excluded are pipelines whose total length is less than 50 km or whose inside diameter is less than 15 centimeters and pipelines used only for military purposes or located entirely within the site boundaries of an industrial operation, as well as pipelines that are entirely off-shore (i.e. located solely out in the open sea). International pipelines whose total length is 50 km or more are included even if the section in the reporting country is less than 50 km long. Pipelines consisting of two (or more) parallel pipelines are to be counted twice (or more). D 98 Pipelines Glossary for Transport Statistics EUROSTAT - ITF - UNECE

- 3. Distribution Pipelines:** Composed of several interconnected pipelines with small diameters, used to take the products to the final consumer. Basically, feeder lines to distribute gas to homes and businesses downstream, or pipelines at terminals to distribute final products to tanks and storage facilities are included in this group.

National oil pipeline transport: Oil pipeline transport between two places (a pumping-in place and a pumping-out place) located in the same country or in the part of the seabed that is allocated to it. It may involve transit through a second country

International oil pipeline transport: Oil pipeline transport between two places (a pumping-in place and a pumping-out place) located in two different countries or on those parts of the seabed allocated to them. It may involve transit through one or more additional countries.

Oil pipeline network: All oil pipelines in a given area.

Oil pipeline transport enterprise: Enterprise formed to carry out in one or more places activities for the provision of transport services through oil pipelines and whose main activity according to the value added is the transportation of goods through oil pipelines.

Public oil pipeline transport enterprise: An oil pipeline transport enterprise which is principally owned (more than 50 per cent of the capital) by the State or public authorities and their enterprises.

Goods transported by oil pipeline: Any liquefied crude or refined petroleum product moved by pipelines.

The types of goods transported through the oil pipeline: goods that are loaded via the oil pipelines contained in the "Glossary of goods for transport statistics - amended version" prepared by Eurostat or by "Classification Glossary of goods for transport statistics in Europe" system prepared by the UN/ECE.

<p>Goods having entered the country by oil pipeline (other than goods in transit by pipeline throughout) Goods which, having been loaded into a pipeline by pumping or compression in another country or that part of the seabed allocated to it, entered the country by pipeline and were delivered there</p>
<p>Goods having left the country by pipeline (other than goods in transit by pipeline throughout) Goods which, having been loaded into a pipeline by pumping or compression in one country or that part of the seabed allocated to it, left the country by pipeline and were delivered in another country.</p>
<p>Pipeline transit transport Goods which entered the country by pipeline and left the country by pipeline at a point different from the point of entry, after having been transported across the country solely by pipeline.</p>
<p>Goods pipeline transport link The combination of the loading place by pumping or compression and the delivery place of the goods transported by pipeline whichever itinerary is followed.</p>

Measurement:

Transport capacity of a pipeline: Maximum tonnage of the product that the pipeline is able to move during a given period.

Tonne - kilometer by pipeline: Unit of measurement of transport which represents transport of one tonne of goods by pipeline over one kilometer.

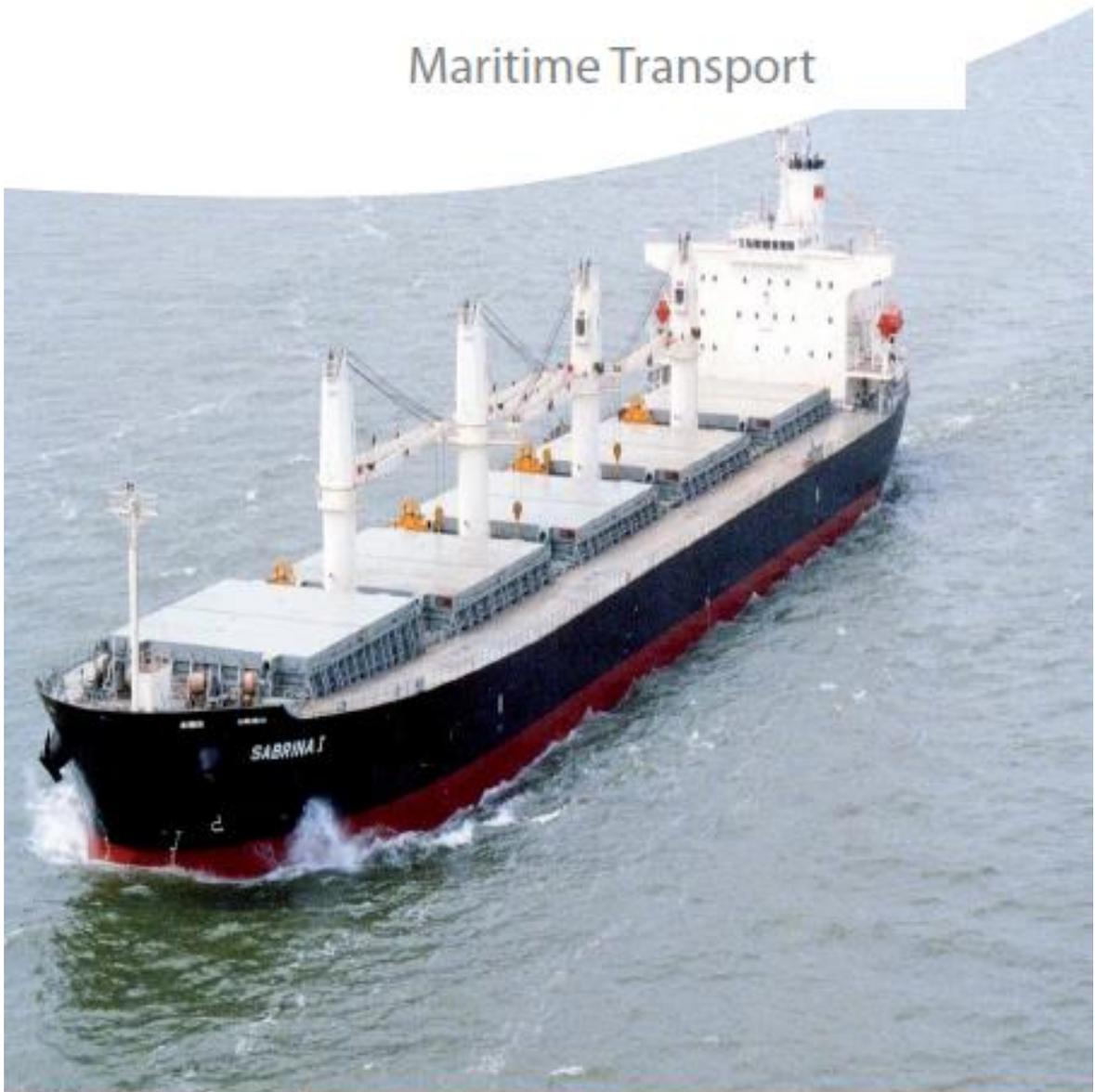
Energy consumed for transport by oil pipeline: Final energy consumed for movement of products by oil pipeline.

Maintenance expenditure on infrastructure (pipeline transport): Expenditure for keeping infrastructure in working order.

Investment expenditure on infrastructure (pipeline transport): Expenditure for the construction of new infrastructure or the extension of existing infrastructure, including reconstruction, renewal and major repairs.

MARITIME TRANSPORT

Maritime Transport



Sea transport: Any movement of goods and/or passengers using merchant ships on journeys, which are undertaken wholly or partly at sea.

One port transport (movements of goods shipped to off shore installations, or for dumping at sea, or reclaimed from the sea bed and unloaded in ports) is included. While bunkers and stores supplied to vessels in port are excluded, bunker oil shipped to vessels off shore is included.

Fluvio-maritime movements of goods by merchant ships are included. Movements of goods on inland waterways vessels between seaports and inland waterway ports are excluded. (They are included in inland waterway transport). Movements of goods carried internally between different basins or docks of the same port are excluded.

Commercial sea transport: Sea transport undertaken for commercial purposes either for payment (i.e. hire and reward) or on the enterprise's own account.

National sea transport: Sea transport between two ports of a national territory or one port sea transport within national territory. In the maritime context, national sea transport is also known as cabotage.

International sea transport: Sea transport other than national sea transport. International one port transport is included.

Infrastructure:

Port: A place having facilities for merchant ships to moor and to load or unload cargo or to disembark or embark passengers to or from vessels, usually directly to a pier

Hub port: A port served by deep sea scheduled shipping and by scheduled short sea shipping

Statistical port: A statistical port consists of one or more ports, normally controlled by a single port authority, able to record ship and cargo movements.

UN/LOCODE: 5 character code where the first two characters are the ISO 3166 country codes while the remaining three are derived from Recommendation 16 from the UNECE in Geneva, together with Eurostat supplied codes for ports not yet included in the UN system.

Port measurement:

Port accessibility – maritime: Port accessibility is defined by the following characteristics:

- Maximum length of vessel which can be accommodated at the port - meters
- Maximum draft of vessel which can be accommodated at the port - meters
- Port approach width and depth above low water - meters

- Entrance channel width and depth above low water - meters
- Tidal window in hours for which vessels of maximum draft can enter and leave port
- Height restrictions above high water - meters (reflecting bridges)
- Tidal range – meters.

Port land side facilities:

- Total port land area - m²
- Crude oil and petroleum products storage areas - m²
- Other bulk storage and stacking areas - m²
- Container stacking areas - in m² and TEU
- Other areas - m²
- Roads - m
- Rail track - m
- Passenger terminals
- Number and number of vessels accommodated per terminal

Port storage areas: Area in m² in ports for storage by type of facility. Height in meters for covered areas.

- Open, not securely enclosed
- Open and securely enclosed
- Covered but not enclosed
- Covered, enclosed.

Port quay lengths by use:

- Total quay length in meters
- Quay length in meters allocated by use
 - Multi-service quays
 - Dedicated quays
 - Containers
 - Other General Cargo

Port quay lengths by depth of water: Quay lengths in meters available by depth of water for ships moored alongside at low tide. Possible depth ranges for collection are as follows:

- Up to 4 meters
- More than 4 and up to 6 meters
- More than 6 and up to 8 meters

- More than 8 and up to 10 meters
- More than 10 and up to 12 meters
- More than 12 and up to 14 meters
- More than 14 meters.

Port cranes by lifting capacity: Number of cranes available in ports by lifting capacity. Possible classes of lifting capacity are as follows:

- 10 tonnes or less
- Greater than 10 tonnes and up to 20 tonnes
- Greater than 20 tonnes and up to 40 tonnes
- Greater than 40 tonnes.

Port cranes by type: Number of cranes available in ports by type

- Mobile container cranes
- Other container cranes
- Other crane.

Port repair facilities: Repair facilities at ports by number and by maximum size of vessel accommodated

- Dry docks
- Floating docks
- Slipways
- Dedicated ship repair quays.

Port navigation aids and services: Availability or not of navigation aids and services at ports and in the approach channels

- Pilotage services
- Lights and lighthouses
- Radar and radio beacons

Vessel Traffic System (VTS) within port and coastal navigation services around port

- Tugs for in-port maneuvering - number
- Escort tugs for tankers - number
- Bunkering facilities
- Mooring services.

Vessels: (Maritime Transport)

Seagoing vessel: Floating marine structure with one or more surface displacement hulls.

Hydrofoil, air cushion vehicles (hovercraft), catamarans (high speed craft), oil rigs, light vessels and seagoing barges are included. Vessels under repair are included. Vessels, which navigate exclusively in inland waterways or in waters within, or closely adjacent to, sheltered waters or areas where port regulations apply, are excluded

Year of construction of vessel: Year of the completion of construction of a vessel.

Year of last major refit or modification: The year in which a vessel last underwent a major modification or refit affecting its structure

Merchant ship: Ship designed for the carriage of goods, transport of passengers or specially fitted out for a specific commercial duty.

Naval ships and ships used by public administration and public services are excluded. Merchant ships are divided into cargo and passenger carrying ships and ships of miscellaneous activities, specially fitted out for a specific duty. Ships of miscellaneous activities include fish catching and processing ships, tugs, dredgers, research/survey ships, and ships used in off shore production and support.

- **Liquid bulk carrier:** This category includes oil tankers, chemical tankers, LG tanker, tanker barge and other tankers. Liquid bulk carriers should be further subdivided into:
 - Single hulled liquid bulk carriers
 - Double hulled liquid bulk carriers.
- **Dry bulk carrier:** This category includes bulk/oil carriers and bulk carriers.
- **Container ship:** Ship fitted throughout with fixed or portable cell guides for the exclusive carriage of containers.
- **Specialized carrier:** Ship specially designed for the carriage of particular cargoes. This category includes vehicle carrier, livestock carrier, irradiated fuel carrier, barge carrier and chemical carrier
- **General cargo non-specialized:** Ships designed to carry a wide range of goods

This category includes reefer, ro-ro passenger, ro-ro container, other ro-ro cargo, combination carrier general cargo/passenger and combination carrier general cargo/container.
- **Passenger ship:** Ship designed specifically to carry more than 12 fare-paying passengers whether berthed or unberthed.

This category should be subdivided into

- High speed passenger ship specialized meeting the requirements set out in the IMO HSS Code paragraph 1.4.30
 - Other passenger ships A ship designed with one or more decks specifically for the carriage of passengers, and where there is either no cabin accommodation for the passengers (unberthed) or not all of the passengers are accommodated in cabins where cabins are provided, is sometimes referred to as a “ferry”.
- **Fishing:** This category includes fish catching and fish processing vessels
 - **Tugs:** Ship designed for the towing and/or pushing of ships or other floating structures. Port tugs are included.
 - **Miscellaneous:** This category includes dredgers, research/survey vessels and other vessels.

IMO ship Number: A permanent number of seven digits assigned by the IMO to each ship for identification purposes. The number will remain unchanged upon transfer of the ship to other flag(s)

Nationality of registration of Seagoing vessel: Country and/or territory authorizing the registry of a seagoing vessel subject to the maritime regulations in respect of manning scales, safety standards and consular representation abroad of its country and/or territory of registration. Some countries e.g. Norway and Denmark provide ‘international’ or ‘open’ registers where the requirements are different from those in the ‘national’ register.

Merchant fleet: Number of merchant ships over 100 BT registered at a given date in a country. Changes in the fleet refer to changes in total or within a ship type, in the seagoing fleet of the reporting country, resulting from new construction, modification in type or capacity, transfers to or from a different flag state, scrapping, casualties, or transfer to or from the fluvial register. Vessels under repair are included.

Sea service: Any movement of a seagoing vessel at sea. One port traffic (movements of seagoing vessels to off shore installations, or for dumping at sea, or traffic from the sea bed to ports) is included. Fluvio-maritime movements of seagoing vessels are included. Movements on inland waterways between seaports and inland waterway ports are excluded and are included in inland waterway traffic. Movements of seagoing vessels internally, between different basins or docks of the same port, are excluded.

Scheduled sea service: A service provided by sea vessels scheduled and performed according to a published timetable, or so regular or frequent as to constitute a recognizably systematic series.

Sea journey: Sea traffic from a specified point of origin to a specified point of destination. A journey can be divided into a number of stages or sections. One port journeys from a sea port

to an off shore installation or a location at sea are included. In the maritime context, sea journeys are also referred to as voyages or sea voyages.

Sea stage: A sea stage is the movement of a vessel direct from one port to another without a port call at an intermediate port

Cargo journey: A sea journey involving the movement of cargo, between a place of loading or embarkation and a port of unloading or disembarkation. A sea journey may involve calls at a number of ports between the specified point of origin and the specified point of destination and encompass a number of cargo journeys with the loading and unloading of cargo at a number of ports.

Types of cargo: Freight cargo can be classified in terms of both the design of the vessel itself and the handling equipment required at ports and on the vessel.

The principal categories are:

- Liquid bulk
- Dry bulk
- Containers
- Roll-on/Roll-off (self-propelled)
- Roll-on/Roll-off (non-self-propelled)
- Other general cargo.

Goods loaded: Goods placed on a merchant ship for transport by sea.

Transshipment from one merchant ship to another is regarded as loading after unloading. Goods loaded include:

- National goods, transshipment goods (national or foreign goods arriving in port by sea)
- Land transit goods (foreign goods arriving in port by road, rail, air or inland waterway).

Goods unloaded: Goods taken off a merchant ship.

Transshipment from one merchant ship to another is regarded as unloading before re-loading.

Maritime Transport Measurement:

Deadweight (DWT): The deadweight of a ship is the difference in tonnes between the displacement of a ship on summer load-line and the total weight of the ship, i.e. the displacement in tonnes of a ship without cargo, fuel, lubricating oil, ballast water, fresh water and drinking water in the tanks, usable supplies as well as passengers, crew and their possessions.

Gross tonnage (GT): Gross tonnage is a measure of the size of a ship determined in accordance with the provisions of the International Convention on Tonnage Measurement of Ships, 1969. Prior to the adoption of the International Convention, the Oslo Convention (1947) was in force.

Port-to-port distance: For statistical purposes, the port-to-port distance is the actual distance sailed. An estimate of the actual distance can be provided.

Vessel-kilometer: Unit of measurement representing the movement of a vessel over one kilometer. The distance taken into account is the distance actually travelled. Movements of unladen vessels are included.

Tonne - kilometer: Unit of measure representing the movement of one tonne of cargo in a merchant ship over one kilometer.

Tonne - kilometer offered: A tonne - kilometer is offered when one tonne of carrying capacity in a merchant ship is sailed over one kilometer. Tonne - kilometers offered are equal to the cargo carrying capacity of the vessel multiplied by the port-to-port distance for all journeys. Transport in barges is included.

Freight capacity utilization: Tonne - kilometers performed expressed as a percentage of tonne kilometers offered.

Tonnes on board: Tonnes of cargo on board a merchant ship on arrival at or departure from a port.

Sea passenger: Any person who makes a sea journey on a merchant ship. Service staffs assigned to merchant ships are not regarded as passengers. Non-fare paying crew members travelling but not assigned and infants in arms are excluded.

Passenger – kilometer: Unit of measurement representing the movement of one passenger in a merchant ship over one kilometer.

Passenger capacity utilization: Passenger-kilometers performed expressed as a percentage of passenger kilometers offered.

Goods carried by sea: Any goods conveyed by merchant ships. This includes all packaging and equipment such as containers, swap-bodies, pallets or road goods vehicles. Mail is included; goods carried on or in wagons, lorries, trailers, semi-trailers or barges are also included. Conversely, the following items are excluded: road passenger vehicles with drivers, returning empty commercial vehicles and trailers, bunkers and stores of vessels, fish carried in fishing vessels and fish-processing ships, goods carried internally between different basins or docks of the same port.

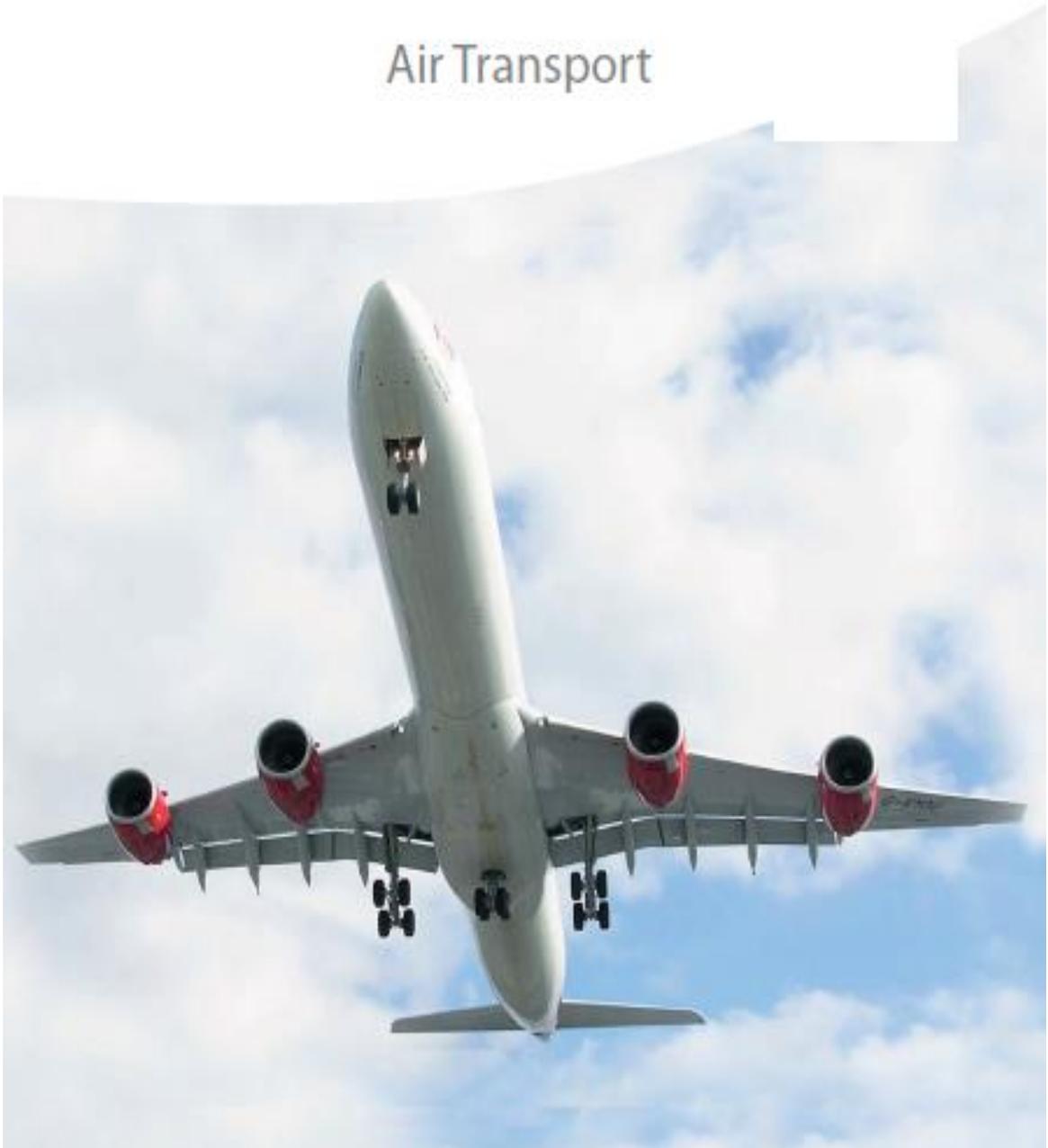
Gross-gross weight of goods: The total weight of the goods carried, all packaging, and the tare weight of the transport unit (e.g. containers, swap bodies and pallets containing goods as well as road goods vehicles wagons or barges carried on the vessel).

Gross weight of goods: The total weight of goods carried, including packaging but excluding the tare weight of transport units (e.g. containers swap bodies and pallets containing goods as well as road goods vehicles wagons or barges carried on the vessel).

Tare weight: The weight of a transport unit (e.g. containers, swap bodies and pallets containing goods as well as road goods vehicles wagons or barges carried on the vessel) before any cargo is loaded.

AIR TRANSPORT

Air Transport



Definition:

- **Air transport:** any movement of goods and/or passengers on an aircraft movement.
- **Commercial air transport:** any movement of goods and/or passengers on a commercial aircraft movement.
- **National air transport:** air transport on a domestic flight
- **International air transport:** air transport on an international flight

Air passenger: Any person, excluding on-duty members of the flight and cabin crews, who makes a journey by air. Infants in arms are included.

Revenue air passenger: Revenue air passenger A commercial passenger for whose transportation an air carrier receives commercial remuneration.

This definition includes, for example, (i) passengers travelling under publicly available promotional offers (for example “two-for-one”) or loyalty programs (for redemption of frequent flier points); (ii) passengers travelling as compensation for denied boarding; (iii) passengers travelling under corporate discounts; (iv) passengers travelling under preferential fares (government, seamen, military, youth student etc.);

This definition excludes, for example, (i) persons travelling free; (ii) persons travelling at a fare or discount available only to employees of air carriers or their agents or only for the business of the carriers; (iii) infants who do not occupy a seat.

Air passengers carried: All passengers on a particular flight (with one flight number) counted once only and not repeatedly on each individual stage of that flight.

All revenue and non-revenue passengers whose journey begins or terminates at the reporting airport and transfer passengers joining or leaving the flight at the reporting airport. Excludes direct transit passengers.

Direct transit passengers: Passengers who, after a short stop, continue their journey on the same aircraft on a flight having the same flight number as the flight on which they arrive. Passengers who change aircraft because of technical problems but continue on a flight with the same flight number are also counted as direct transit passengers. On some flights with intermediate stops, the flight number changes at an airport to designate the change between an inbound and outbound flight. Where passengers for an intermediate destination continue their journey on the same aircraft in such circumstances, they should be counted as direct transit passengers.

Transfer or indirect transit passengers: Passengers arriving and departing on a different aircraft within 24 hours, or on the same aircraft bearing different flight numbers. They are counted twice: once upon arrival and once on departure.

Infrastructure:

Airport: A defined area of land or water (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft and open for commercial air transport operations.

International Airport: Any airport designated by the State in the territory of which it is situated as an airport of entry and departure for international air traffic, where the formalities incidental to customs, immigration, public health, agricultural quarantine and similar procedures are carried out, whether such facilities are provided on a full time or part time basis.

Domestic Airport: Any airport not designated to handle international traffic

Airport Terminal: A self-contained facility for handling passengers and/or freight

Passenger terminal: An airport terminal with facilities for the handling of passengers, including passenger check-in, baggage handling, security, immigration passenger boarding and disembarkation.

Freight terminal: An airport terminal designed solely to handle freight shipments, including freight acceptance and release, secure storage, security and documentation.

Airport runways: A defined rectangular area on an airport prepared for the landing and take-off of aircraft with the following characteristics:

- Take-off run available: The length of runway declared available and suitable for the ground run of an aircraft taking off.
- Landing distance available: The length of runway which is declared available and suitable for the ground run of an aircraft landing.

Airport taxiways: A defined path on an airport established for the taxiing of aircraft and intended to provide a link between one part of the airport and another.

Check-in Facilities:

- Conventional: A conventional check-in facility where airline staff handle ticket processing, luggage labelling, including fast bag drops, and issue of boarding cards directly.
- Self-service check-in kiosks: A kiosk providing check-in facilities and offering automatic ticket processing, boarding cards and, in some cases, luggage label printing.

Passenger gates: An area of a passenger terminal where passengers gather prior to boarding their Aircraft.

- With finger bridges (jet bridges or jet ways): A gate with a finger bridge connecting to the aircraft to allow boarding without descending to ground level and using steps to board.
- Other: Gates other than those with finger bridges.

Equipment (Aircraft):

Aircraft: Any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of air against the earth's surface.

Aircraft by configuration:

- a) Passenger aircraft: An aircraft configured for the transport of passengers and their baggage. Any freight, including mail, is generally carried in cargo holds in the belly of the aircraft.
- b) Cargo aircraft: An aircraft configured solely for the carriage of freight and/or mail. Persons accompanying certain kinds of cargo, such as livestock, may also be carried.
- c) Combi aircraft: A passenger aircraft with enhanced capabilities for the carriage of freight on the passenger deck.
- d) Quick change aircraft: An aircraft designed to allow a quick change of configuration from passenger to cargo and vice versa.
- e) Other: An aircraft not used for commercial air transport.

Aviation fleet: Aircraft registered at a given date in a country

Operating fleet: Operating Fleet includes all aircraft in service for commercial purposes (including all aircraft that are temporarily unserviceable due to major accidents, conversions, government action such as grounding by government regulatory agencies). Aircraft used solely for training and communications and private flying are not included in the operating fleet.

Enterprises:

Airline (Commercial air transport operator): An aviation enterprise operating aircraft for commercial purposes which (i) performs scheduled or nonscheduled air transport services, or both, which are available to the public for carriage of passengers, mail, and /or cargo and (ii) is certified for such purposes by the civil aviation authority of the state in which it is established.

ICAO provides a 3-letter air transport operator code as listed in ICAO Document 8585 and is required for all airlines operating international routes. A two-character airline designator is assigned by IATA in accordance with the provisions of IATA Resolution 762. The two-

character airline designators are used for reservations, schedules, time tables, telecommunications, ticketing, cargo documentation, legal, tariffs, and/or other commercial/traffic purposes.

Airport operator: An air transport undertaking operating a commercial airport.

Types of employment:

- a) General administration: Includes central and regional management staff (e.g. finance, legal, personnel etc.) and boards of directors. The management staffs of specialist departments (operations and traffic, aircraft, air traffic control, runway and terminal construction and maintenance, emergency services) are excluded but are taken into account in the statistics specific to each of these services.
- b) Operations and traffic Cabin and ground crews (excluding flight deck staff) and associated central and regional offices. Includes tourism, advertising and terminal operations.
- c) Aircraft Flight deck staff, maintenance and inspection staff and associated central and regional offices.
- d) Airports Air traffic control staff, terminals, runway and other airport facilities construction, maintenance and supervision staff, ground handling staff, emergency services staff.
- e) Other operations Passenger and freight services, freight shipment services etc.

Traffic:

Aircraft movement: An aircraft take-off or landing at an airport. For airport traffic purposes one arrival and one departure is counted as two movements. Included are all commercial aircraft movements and non-commercial general aviation operations. Excluded are State flights, touch and goes, overshoots and unsuccessful approaches.

On flight origin and destination (OFOD): Traffic on a commercial air service identified by a unique flight number subdivided by airport pairs in accordance with point of embarkation and point of disembarkation on that flight. For passengers, freight or mail, where the airport of embarkation is not known, the aircraft origin should be deemed to be the point of embarkation; similarly if the airport of disembarkation is not known, the aircraft destination should be deemed to be the point of disembarkation.

Aircraft hours: An aircraft hour is said to be performed when an aircraft operates for one hour. Aircraft hours are measured on the basis of block-to-block time.

Average daily aircraft utilization - revenue hours: Total revenue hours (scheduled plus charter) flown by aircraft type (block to block) during a period divided by the related number of aircraft days available. "Aircraft days available" shall be the sum of the number of days

each aircraft is available for use during the period in question. The following days should be excluded from the days available:

- Days between the date of purchase and the date actually placed in service
- Days after its last revenue flight prior to disposal
- Days out of service due to major accidents or conversion
- Days when an aircraft is in the possession of others or not available due to government action such as grounding by government regulatory agencies.

All other days must be considered as “days available”, including days required for maintenance or overhaul.

Aircraft kilometers performed: Aircraft kilometers equal the sum of the products obtained by multiplying the number of flights performed on each flight stage by the airport-to-airport distance.

Passenger seats available: The total number of passenger seats available for sale on an aircraft operating a flight stage between a pair of airports. Includes seats which are already sold on a flight stage i.e. including those occupied by direct transit passengers.

Excludes seats not actually available for the carriage of passengers because of maximum gross weight limitations.

Indicators:

Seat-kilometer offered: Unit of measurement representing the movement of one seat available in a passenger aircraft when performing the services for which it is primarily intended over one kilometer. The distance to be considered is that actually travelled. Shunting and other similar movements are excluded.

Passenger-kilometer: A passenger kilometer is performed when a passenger is carried for one kilometer

Passenger load factor: Passenger - kilometers expressed as a percentage of available seat kilometers.

Passenger-kilometers flown by flight stage: The sum of the products obtained by multiplying the number of passengers carried on each flight stage by the airport-to-airport distance.

Passenger-kilometers flown by on-flight origin/destination airports: The product of multiplying the number of passengers flown between two airports as initial origin and final destination by the airport-to-airport distance.

Passenger tonne - kilometers performed: The result obtained by multiplying the passenger kilometers flown by the weight of each of the passengers including both free and excess baggage.

Tonne - kilometer offered: Unit of measurement representing the movement of one tonne of payload available in an aircraft when performing services for which it is primarily intended over one kilometer. The distance to be considered is that actually travelled.

Mail: Dispatches of correspondence and other objects carried on an aircraft, which have been dispatched by and intended for delivery to postal administrations. Express freight and express parcel shipments are excluded.

Mail tonne - kilometers performed by flight stage: A Tonne - kilometer is a metric tonne of freight revenue load carried one kilometer. Tonne - kilometers performed is obtained by multiplying the total number of tonnes of mail revenue load carried by the airport-to-airport distance.

Transportation Data Sources

Transport data depends on a variety of statistical sources, because it deals with different networks, as well as showing the traffic type, whether passengers or goods. Transport data sources can be divided into three main groups:

- Administrative sources,
- Surveys / research,
- Censuses.

Administrative sources:

- Data provided concerning the activities of transport services providers according to the transport mode, in particular :
 - o Air transport operator/operators
 - o Maritime transport operators
 - o Railway transport operator/operators
- Provides statistics on available infrastructure and equipment
- Provides statistics on the flows of goods and passengers through some transportation modes
- Low cost
- Administrative data often cannot be classified
- Provides a limited amount of indicators

It can be classified into:

1. Primary sources (raw sources): namely are:
 - A transport unit or mean: ship, plane, car... ,
 - On the infrastructure unit level: airport, port, train station... ,
 - At the level of transportation facility/entreprise
2. The main sources: namely are:

- Directorates, agencies, offices or institutions responsible for organizing, controlling or facilitating the activity of one of transport modes (port management, civil aviation management, airport management...),
- Organizations responsible for the control and organization of all transport modes (Transportation Ministry),
- Or an institution responsible for collecting and organizing statistical data related to transport sector as a whole or one of its modes (e.g. statistical offices).

Other sources:

- For example, installations records: a relatively moderate cost (the cost of construction and the cost of renewal) but offer a limited amount of indicators related to the transport sector
- Studies carried out by a group of research and study institutions and universities
- The use of web sites

Surveys/Research:

1. Multipurpose surveys where transport questions compose a subject or a unit.

Within its advantages:

- A relatively low cost: cost sharing
- The possibility of a review in one table of other data vs. the transport data

Within its disadvantages:

- Limited time allocated for the transport sector question

2. Independent surveys:

- High cost associated with sampling method, data collection (in the field) and their process
- Data on flows of goods and passengers, particularly for land transport, with the possibility to give more details
- Data on the source and direction
- The possibility of completing necessary data to complete and to develop a matrix of data flows both for every mediator of transportations or for the transport sector in general.

Censuses:

- Is inclusive of all statistical units
- Too high cost
- Provide a very limited number of transport statistics and indicators

Censuses types:

- General Population Census
- Economic Census/Economic Establishments Census
- Agricultural Census
- Other Censuses