



الهيئة العامة للإحصاء
General Authority for Statistics

Metadata Report of Land Transport Statistics

V-2.2

Quality Management



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1. Contact

1.1. Contact organization	General Authority for Statistics
1.2. Contact organization unit	Traffic and Transportation Statistics Department
1.3. Contact person function	Director of Traffic and Transportation Statistics Department
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1.5. Contact email address	info@stats.gov.sa
1.6. Contact phone number	199009

2. Metadata Update

2.1. Metadata last update	08/10/2024
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3. Statistical Presentation

3.1. Data description
<p>Land Transport Statistics publication presents up-to-date statistics and indicators on land transport in the Kingdom of Saudi Arabia.</p> <p>Land Transport Statistics publication is a statistical product that collects data through administrative records about key characteristics as follows:</p> <ul style="list-style-type: none">• Passenger traffic on roads.



- Freight traffic on roads.
- Infrastructure of the transport system.
- Participatory transport.
- Traffic safety.

3.2. Classification system

The following classifications are applied in the Land Transport Statistics:

The National Classification for Economic Activities (ISIC4):

The statistical classification based on the International Standard of Industrial Classification of All Economic Activities (ISIC4) is used to describe productive activities of an establishment .

National Code of Countries and Nationalities (3166 ISO - codes Country):

A statistical classification based on the international standard (ISO 3166_Country codes), which is a standard issued by the International Organization for Standardization (ISO of the UN), and this classification gives numeric and literal codes for the world's (248) countries, based on the classification of countries.

The classification is used in the Land Transport publication to classify Saudi or non-Saudi individuals.

Harmonized System (HS) (H.S.2022):

Commodity export and import data are based on the Harmonized System(H.S.2022) of the World Trade Organization (WCO), a table of description and classification of goods that includes sub-items.

Classification of countries:

The countries are classified into groups of countries by continents or by common elements as follows:

- GCC Countries.
- Arab countries except the GCC countries.
- Islamic countries except Arab.
- Asian countries except Arab and Islamic countries.
- African countries except Arab and Islamic countries.
- Countries of Australia and the Pacific part.
- Countries of North America.



- Countries of South America.
- Countries of the European Union.
- Countries of Europe except countries of the European Union.

Metadata are collected through registry data sources so that outputs can be produced in accordance with all relevant classifications.

The classifications are available on the GASTAT's website: www.stats.gov.sa

3.3. Sector coverage

The Land Transport Statistics publication covers all land transport activities in the Kingdom.

3.4. Statistical concepts and definitions

Terminologies and concepts of the Land Transport Statistics Publication:

- Road:

An open transportation route for the use of motorized vehicles, excluding railways and airport runways. It includes paved roads and other fixed-base roads such as gravel roads. It covers streets, bridges, tunnels, supporting structures, and excludes bike lanes.

- Road Network:

Includes all types of roads in a specific area, which can be classified according to the surface into paved and unpaved roads.

- Paved Road:

Roads covered with crushed stones and hydrocarbon-based or bitumen materials, either with concrete or gravel.

- Unpaved Road:

Road with a solid base that is not paved with crushed stones, hydrocarbon-based or bitumen materials, or concrete, but may be paved with gravel.

- Roads by Engineering Classification between cities:

This classification is based on their engineering representation in nature and includes the following types:



- Highway: A road divided into multiple lanes and designed to accommodate high traffic flow at high speeds. Such roads have priority in traffic, with isolated intersection crossings from the main path.
- Dual Carriageway: A two-way road with a median strip or cement barrier, with level crossings.
- Single Carriageway: A two-way road without a median strip.
- Roads by Functional Classification between cities:

This classification is based on the idea that each road has a starting point and an endpoint, and the main directions of the roads are from south to north and from west to east, with the starting point in the south or west and the endpoint in the north or east. It includes the following types:

- Major Road: Connects major cities and regions of the country, identified by a number or two numbers, such as Road 40, which connects Jeddah, Riyadh, and Dammam. International roads are considered major roads and are identified by a letter and number, such as Road M50 and Road M45
- Secondary Road: Connects cities and provinces and then connects them to the main road network, identified by three numbers, such as Road 535, which connects several roads along its route to Road 65.
- Branch Road: Connects villages, settlements, farms, and other areas, identified by four numbers, and may be connected to secondary and major roads. Examples include Road 5981, Road 4272, and Road 5615, which connect several villages and farms to each other and connect them to Road 40 and Road 50.
- Roads within cities are classified into:
 - Regional road: The roads located outside urban areas and therefore fall under the jurisdiction of the Ministry of Transport and Logistics Services.
 - Highway: The highway is divided into multiple routes and is designed to accommodate heavy traffic moving at high speeds. This type of road has absolute priority for traffic, with intersections separated from the main route.
 - Main road: Also known as an 'arterial road,' it is the road that carries the main traffic flow and may have either at-grade or grade-separated intersections.
 - Major street: A major urban road located within cities or residential areas, characterized by the presence of commercial and service activities along both sides of it. Main streets are usually multi-lane to facilitate traffic flow, and often serve local traffic and commuting within cities.
 - Collector street: A collector road carries traffic from local and neighbouring roads to higher-level roads as well as continuous traffic.
 - Local road: The roads that are used to serve inner residential areas.
- Vehicle:



Any means of transportation designed to travel on wheels or tracks and powered by mechanical or animal force, excluding trains.

- Private vehicle:

A car designed for personal use to transport passengers and their belongings without charge.

- Taxi:

A car designed for transporting passengers and their belongings for a fee, with a capacity of no more than eight people.

- Bus:

- A car designed for transporting passengers and their belongings for a fee, with a capacity

of no more than eight people. It is divided into two types:

- Public bus: For transporting passengers and their belongings for a fee.
- Private bus: For transporting passengers and their belongings without charge.

- Transport:

- A vehicle designed to transport animals and goods, divided into two types:

- Public transport: for transporting animals, goods, and cargo for a fee.
- Private transport: for transporting animals, goods, and cargo without charge.

- Motorcycle:

Any vehicle with two or more wheels equipped with a motor, designed to transport people or goods, and may have a sidecar, not designed in the form of a car.

- Machinery:

Equipment and machines that operate under self-propulsion, including agricultural equipment.

- Road accidents:

Any incident involving at least one moving vehicle or its load, resulting in human or material damages, or both, without intent.

- Minor road accident:

An accident that results in damage to private or public property and may cause minor injuries that do not require hospitalization.



- Serious road accident:

An accident that results in fatalities, injuries that require hospitalization or both or serious damage.

- Fatality in road accidents:

Any person who dies immediately or within 30 days of the date of the accident.

- Injured person in road accidents:

Any accident that results in at least one injury is divided into three categories:

- Minor Injury: Any injured person receiving treatment at the scene of the incident without the need for ambulance transport.
- Moderate Injury: Any injured person is transported to the hospital for a period not exceeding 24 hours as a result of the traffic accident.
- Serious injury: Any injured person is transported to the hospital for a period exceeding 24 hours as a result of the traffic accident.

- Driver's license:

An official document issued by the relevant authority or a recognized foreign entity, proving that the holder is qualified to drive one or more types of vehicles.

- Passenger:

Anyone presents in a means of transport, boarding or disembarking from it, other than the driver.

- Land transport:

Includes the transportation of passengers and goods within cities and suburbs, between cities, or internationally.

- Arriving passengers:

Those arriving through land ports.

- Departing passengers:

Those departing from land ports.

- Directed transportation:



The activity of transporting passengers by directing private taxis or private cars for a fee through smart device applications.

- Vehicle insurance:

Includes insurance against losses and liabilities related to vehicles, excluding transportation risks.

- Driver's Card:

A document issued by the Transport General Authority approving the driver to drive the vehicle in the activity according to the transportation and storage activities.

- Passenger transport activity by buses within cities:

Operating public transportation by buses within cities

- Specialized bus transportation activity:

Transporting passengers by buses under a transportation contract and according to agreed schedules without adhering to specific routes, for a fee. This includes, but is not limited to, transporting individuals or groups for purposes such as Hajj, Umrah, visits, tourism, entertainment, or work.

- Bus rental activity:

Renting buses with or without a driver under a rental contract for a fee.

- Bus routing activity:

Electronic mediation for bus routing through smartphone applications for passenger transport for a fee.

- International bus transportation activity:

Transporting passengers by buses to/from outside the country.

- Educational bus transportation activity:

Transporting students and students of governmental and private educational institutions, as well as their staff including teachers, administrative personnel, and those in similar roles. This includes nurseries, kindergartens, schools at all educational levels, colleges, institutes, Quran memorization centers, universities, and similar institutions, using vehicles equipped for this purpose.



- Activities of the taxi sector and taxi intermediaries, including activities licensed by Transport General Authority:

Public taxi, airport taxi, private taxi, family taxi, and taxi intermediary activity.

- Car rental sector activities and rental intermediaries:

These include activities licensed by Transport General Authority: Category (a), (b), (c), (d), and (e).

- Cargo transportation on land routes:

Transporting cargo by trucks on roads for a fee.

- Freight brokers (logistics):

Arranging the transportation of goods from the sender to the recipient and managing and planning the supporting operations for cargo transportation.

- Truck rental activity:

Renting a cargo truck without a driver under a rental contract for a fee.

- Vehicle transport and towing activity:

Transportation of vehicles and towing of vehicles on roads using transportation and/or towing vehicles for a fee.

- Domestic parcel transportation activity:

Transportation of postal parcels in a local area.

- Local and international parcel transportation activity:

Transportation of postal parcels within local and international.

- Freight vehicle routing activity:

Conducting the activity through a technical system or call center for the purpose of mediating the transport of specific cargo using a vehicle for the benefit of a client.

- The activity of operating truck parking lots:

It is the operation of truck parking lots at the entrances of cities and highways to ensure the provision of the best services and reduce the random presence of trucks, which enhances security and safety, preserves the environment, and reduces traffic congestion.



- Light freight transportation activity:

Transportation of goods on roads by light transport vehicles for a fee.

- Tons:

A unit of measurement that equals 1,000 kilograms, and the ton is primarily used as a unit of mass measurement, as well as a unit of size.

- Kilometer:

An international unit of measurement for length in the metric system, equal to 1,000 meters or 0.62 miles, and it is the unit used to measure distances between geographical locations on the earth in most countries.

- Exports and imports:

The transactions and commercial movements between countries for the exchange of various productive goods and services in order to exchange benefits and meet the general needs of the countries.

- Capital value of road infrastructure:

An estimated monetary value that reflects the current stock of physical road transportation assets. For statistical purposes, it is recommended to use the net capital value, taking into account depreciation.

- Investing in road infrastructure:

Capital expenditure on new road infrastructure or expansion of existing roads, including reconstruction and renovation (major replacement work on existing infrastructure that does not change its overall performance) and updates (main modification works to improve the original performance or capacity of the infrastructure). Infrastructure includes land, permanent road construction, buildings, bridges and tunnels, as well as immovable installations and associated installations (signals, telecommunications, toll-collection facilities, etc.) as opposed to road vehicles.

- Maintenance of road infrastructure:

Non-capital expenditures to maintain the condition and capacity of existing road infrastructure. This includes roof maintenance, tinkering and ongoing repairs (work on road erosion roughness, roadsides, etc.).



3.5. Statistical unit

Not applicable.

3.6. Statistical population

Not applicable.

3.7. Reference area

Road transport statistics cover all administrative regions in the Kingdom of Saudi Arabia.

3.8. Time coverage

Data is available for some indicators as a time series from 2015 to 2023.

3.9. Base period

Not applicable.

4. Unit of measure

- Most results are measured by numbers (number of accidents and number of passengers).
- Some indicators are calculated in tons (quantity of shipments).
- And some results are calculated in kilometers (e.g.: road lengths).



5. Reference period

Data from administrative records are based on the last day of each calendar year.

6. Confidentiality

6.1. Confidentiality - policy

According to the Royal Decree No. 23 dated 07-12-1397, data must always be kept confidential, and must be used by GASTAT only for statistical purposes.

Therefore, the data are protected in the data servers of the Authority.

6.2. Confidentiality - data treatment

Data are displayed in appropriate tables to facilitate its summarization, comprehension, results extraction, comparison with other data and coming up with statistical connotations for the study community. It is also easier to check tables without the need to see any sensitive or confidential data, which violates the confidentiality of statistical data.

7. Release policy

7.1. Release calendar

The Land Transport Statistics is included in the statistical calendar.

7.2. Release calendar access

Available on the: <https://www.stats.gov.sa/en/future-releases>



7.3. User access

One of GASTAT's objectives is to better meet its clients' needs, so it immediately provides them with the publication's results once the Land Transport Statistics Publication is published.

It also receives questions and inquiries of the clients about the Publication and its results through various communication channels, such as:

- GASTAT official website: www.stats.gov.sa
- GASTAT official e-mail address: info@stats.gov.sa
- Client support e-mail: cs@stats.gov.sa
- Official visits to GASTAT's official head office in Riyadh or one of its branches in Saudi Arabia.
- Official letters.
- Statistical telephone: (199009).

8. Frequency of dissemination

Annual.

9. Accessibility and clarity

9.1. News release

The announcements of each publication are available on release calendar as mentioned in 7.2. Release calendar access. The news release can be viewed on the website of GASTAT through the following link:

<https://www.stats.gov.sa/en/news>



9.2. Publications

GASTAT issues Land Transport statistics publications and reports regularly within a pre-prepared dissemination plan and is published on GASTAT's website. GASTAT is keen to publish its publications in a way that serves all users of different types, including publications in different formats that contain (publication tables, data graphs, indicators, and metadata) in both English and Arabic.

The results of the Land Transport Statistics are available at:

<https://www.stats.gov.sa/en/news>

9.3. On-line database

Not available.

9.4. Micro-data access

Not available.

9.5. Other

Not available.

9.6. Documentation on methodology

The concepts and definitions are based on the Traffic law issued by Royal Decree No. M/85 dated 26/10/1428 AH, and the [Transport Statistics Glossary](#), which is a document prepared by the Work team between the European Statistical System (Eurostat), the International Transport Forum, and the United Nations Economic Commission for Europe, "Fourth Edition".

The methodology used to calculate the average daily traffic on the intercity road network:

It includes car and truck traffic of all types and was calculated by collecting data from traffic census units owned by the Ministry of Transportation and Logistics (Roads General Authority), for example: (Total traffic during the month on the traffic count points and through it, the



ratio of cars and trucks was calculated, and when the ratio of trucks by region and month was obtained, the average daily traffic passing through the traffic count points was calculated).

The methodology used to calculate the average monthly traffic on the intercity road network:

The traffic movement numbers were calculated by multiplying the average daily traffic by the number of traffic counting units and the number of days in each month. In case of a difference between the total traffic for the year and the total monthly average traffic, this difference is justified by taking the averages. For example: (Riyadh in January: The average daily traffic in the traffic census points, the number of days in January, the number of traffic census units in the region (Riyadh).

The methodology used to calculate the average number of daily kilometers traveled by car:

utilizing data from the National Strategic Transport Model (NSTM), which is a transport modeling tool based on data collected in the base year of 2022. This data includes demographic information and data from several surveys to achieve high-precision modeling, which is used in transport analyses. The traffic growth rate is derived from the economic growth rate targeted by the Ministry of Economy and Planning in Saudi Arabia.

9.7. Quality documentation

Quality documentation covers documentation on methods and standards for assessing, measuring, and monitoring the quality of statistical process and output. It is based on standard quality criteria such as relevance, accuracy and reliability, timeliness and punctuality, accessibility and clarity, comparability, and coherence.

10. Quality management

10.1. Quality assurance

GASTAT declares that it considers the following principles: impartiality, user orientated, quality of processes and output, effectiveness of statistical processes, reducing the workload for respondents.

Quality controls and validation of data are actions carried out throughout the process in different stages such as the data input and data collection and other final controls.



10.2. Quality assessment

GASTAT performs all statistical activities according to a national model (Generic Statistical Business Process Model - GSBPM). According to the GSBPM, the final phase of statistical activities is overall evaluation using information gathered in each phase or sub-process. This information is used to prepare the evaluation report which outlines all the quality issues related to the specific statistical activity and serves as input for improvement actions.

11. Relevance

11.1. User needs

Internal users in the GASTAT for Land Transport Statistics Publication data:

- National accounts statistics.
- Tourism, Hajj, and Umrah Statistics.
- International indicators department.

Some several external users and beneficiaries greatly benefit from Land Transport Statistics Publication data, including:

- Government entities.
- Regional and international organizations.
- Research institutions.
- Media.
- Individuals.

The disseminated key variables that used by external users:

Ministry of Economy and Planning	Road density.
Indicators of Sustainable Development.	Number of passengers and number of Cargo.

11.2. User satisfaction

Not available.



11.3. Completeness

The data of Land Transport Statistics are based on the data recorded by government agencies and those related to transport and storage activities, and the data in a complete state.

12. Accuracy and reliability

12.1. Overall accuracy

The links between variables are checked and coherence between different data series is confirmed.

13. Timeliness and punctuality

13.1. Timeliness

GASTAT uses the Special Data Dissemination Standard (SDDS) issued by the International Monetary Fund. According to this Standard, all statistics agencies are required to publish data on an annual basis, and with a delay of not more than six months (180 days) after the end of the reference period. If the data are from different source, they may be published in a different frequency.

13.2. Punctuality

The publication takes place according to the published release dates on the statistical calendar for Land Transport Statistics Publication on the website of the General Authority for Statistics.

The data are available at the expected time, as scheduled in the statistical release calendar, If the publication is delayed, reasons shall be provided.



14. Coherence and comparability

14.1. Comparability - geographical
Data are fully comparable.
14.2. Comparability - over time
The Land Transport Statistics Publication began in 2022 as annual record data including time series for various indicators until 2023.
14.3. Coherence- cross domain
Not applicable.
14.3.1. Coherence - sub annual and annual statistics
Not applicable.
14.3.2. Coherence- National Accounts
Not applicable.
14.4. Coherence - internal
Not applicable.

15. Data revision

15.1. Data revision - policy
Not applicable, only final results will be published.
15.2. Data revision - practice
Not applicable, only final results will be published.



16. Statistical processing

16.1. Source data

Land transport statistics are based on the administrative records of:

- Ministry of Transport and Logistics Services.
- Ministry of Municipalities and Housing.
- Transport General Authority.
- Roads General Authority.
- Zakat, Tax and Customs Authority.
- Ministerial Committee for Traffic Safety.

16.2. Frequency of data collection

Annual.

16.3. Data collection

Data collection from administrative records:

In coordination with the Authority's departments related to data collection and management, data is obtained from administrative records related to land transport statistics from the Ministry of Transport and Logistics Services, Ministry of Municipalities and Housing, Transport General Authority, Zakat, Tax and Customs Authority, and Roads General Authority. This includes data on the number of passengers, the quantity of shipments in tons, road lengths, statistical data on transport and storage activities, and traffic safety data.

The data is stored in the authority's databases after undergoing auditing and review processes following approved statistical methods and recognized quality standards. If errors or discrepancies are discovered, the data is cross-referenced with the data source for correction or clarification.

16.4. Data validation

Data are reviewed and matched to ensure their accuracy and precision in a way that suits their nature with the aim of giving the presented statistics quality and accuracy.



The data of the publication's current year are compared with the data of the previous year to ensure their integrity and consistency in preparation for processing data and extracting and reviewing results.

In addition to the data processing and tabulation to check their accuracy, all the outputs are stored and uploaded to the database after being calculated by GASTAT to be reviewed and processed by specialists in Traffic and Transportation Statistics Department through modern technologies and software designed for this purpose.

16.5. Data compilation

Data editing:

Specialists of Traffic and Transportation Statistics Department have processed and analyzed data in this stage, and this step was based on the following measures:

- Sorting and arranging data in groups or different categories in a serial order.
- Summarizing detailed data into key points or data.
- Combining many data segments and ensuring their interconnection.
- Processing incomplete or missing data.
- Processing illogical data.
- Converting data into statistically significant data.
- Arranging, presenting, and interpreting data.

A number of road indicators were also calculated using spatial and statistical modeling:

Data sources:

- Lengths of roads outside the urban area of the Ministry of Transport and Logistics.
- Lengths of roads within the urban area from the Ministry of Municipalities and Housing.
- Population estimates.
- Administrative boundaries of regions and governorates.

Spatial and statistical modelling:

- Combine road data and remove duplication.
- Calculate the density of roads for each administrative area.
- Calculate road lengths according to administrative regions.
- Calculate road density for residents by administrative region.

Output tables:

- The density of the road network for the area by administrative region.



- The density of the road network of the population by administrative region.
- Road lengths according to administrative regions.

Using the following equations:

- Road network density per capita by administrative region = length of road network in the administrative region / population of the administrative region.
- Road network density per square kilometer in the administrative area = length of the road network in the administrative area / area of the administrative area.

16.6. Adjustment

Not applicable, only final results will be published.

17. Comment