



# ROAD TRANSPORT STATISTICS -EXPERIENCE OF TURKEY-



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Regional Workshop on Road Transport and Road Safety Statistics  
08-09 September 2016  
Ashgabat, Turkmenistan



# OUTLINE



- General Information
  - General Directorate of Turkish Highways
- Road Transport Statistics in Turkey
- Road Safety Statistics in Turkey

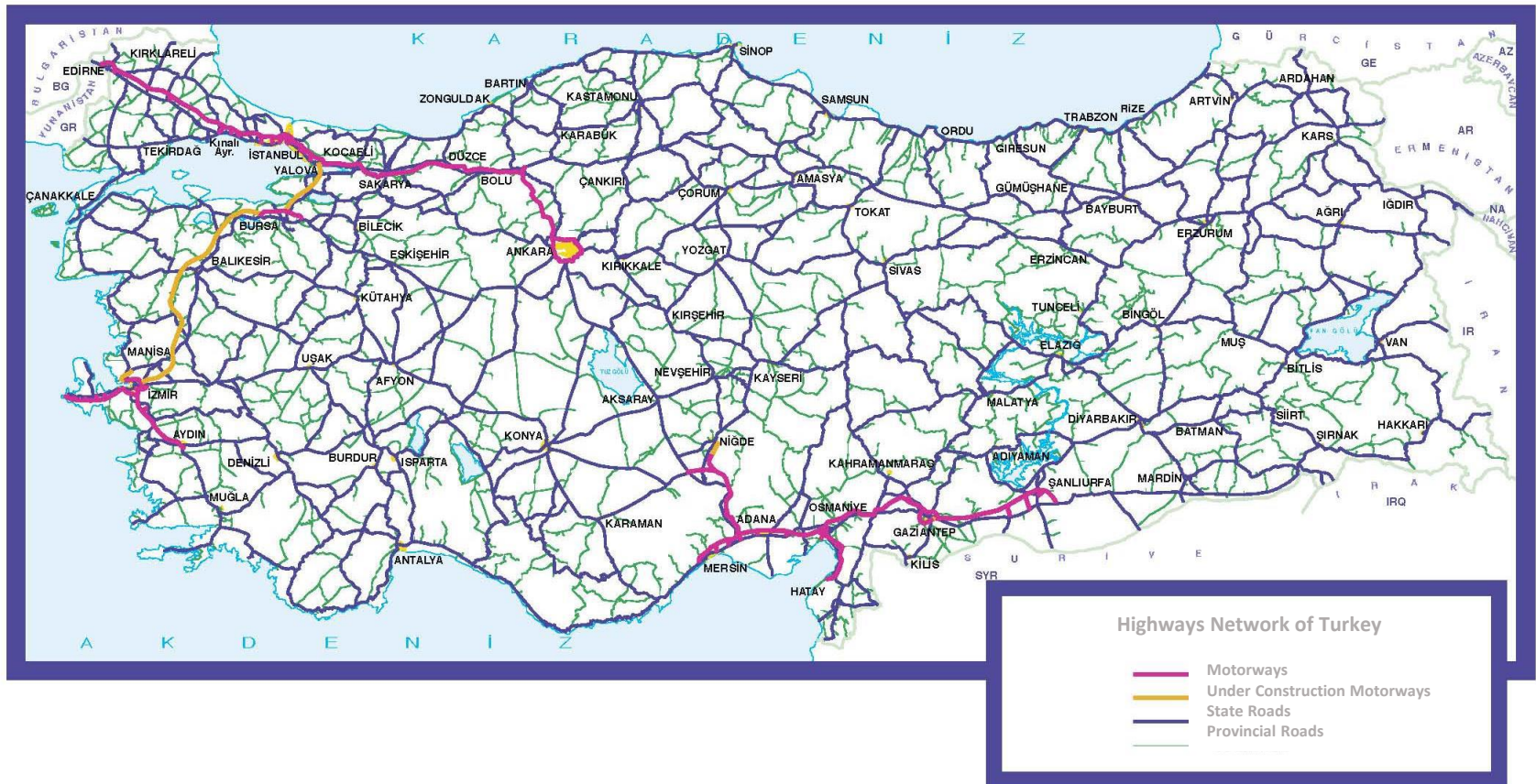




# GENERAL OVERVIEW



## TURKEY



Population	78.741.053
Area	780.043 km <sup>2</sup>

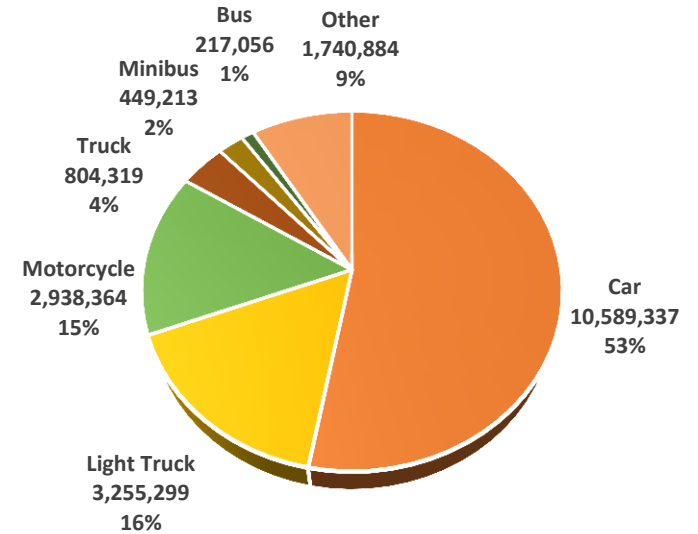
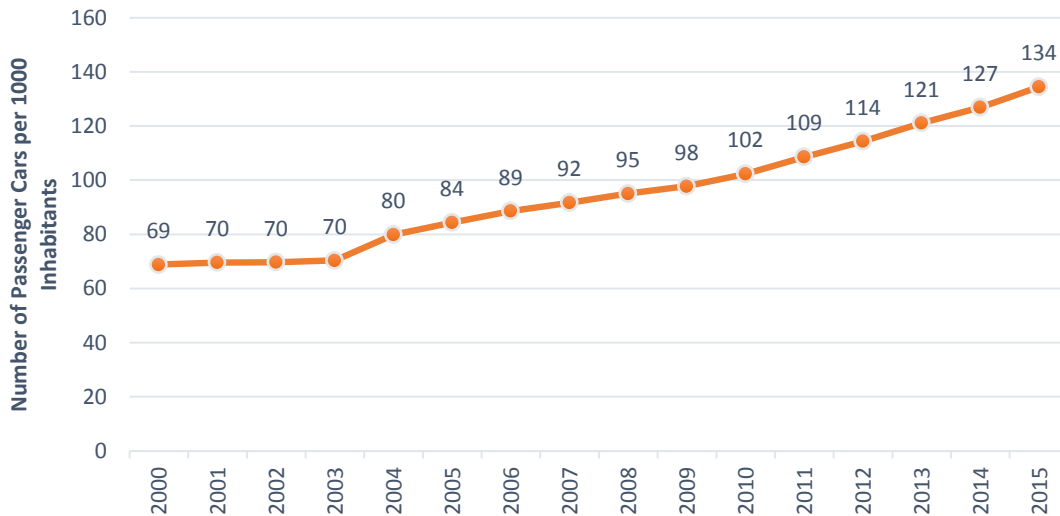


# GENERAL OVERVIEW



## TURKEY

### MOTORISATION & STOCK OF REGISTERED VEHICLES



(In the EU-28, there were an estimated 491 passenger cars per 1 000 inhabitants in 2015)





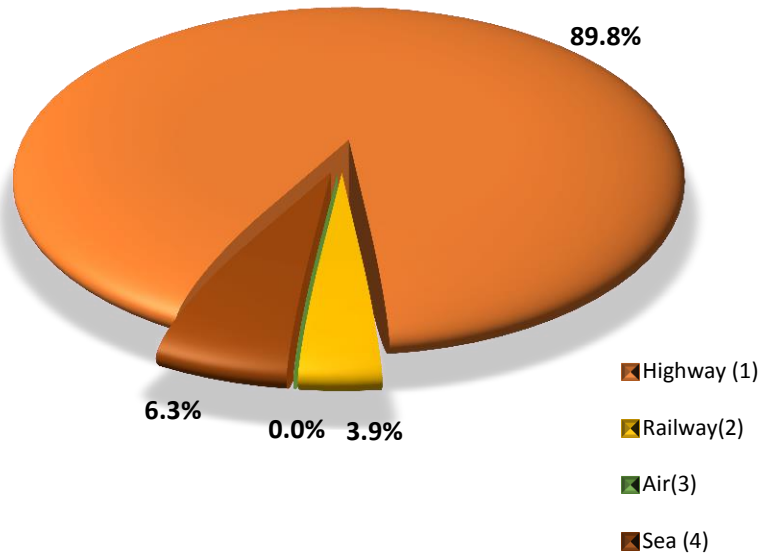
# GENERAL OVERVIEW



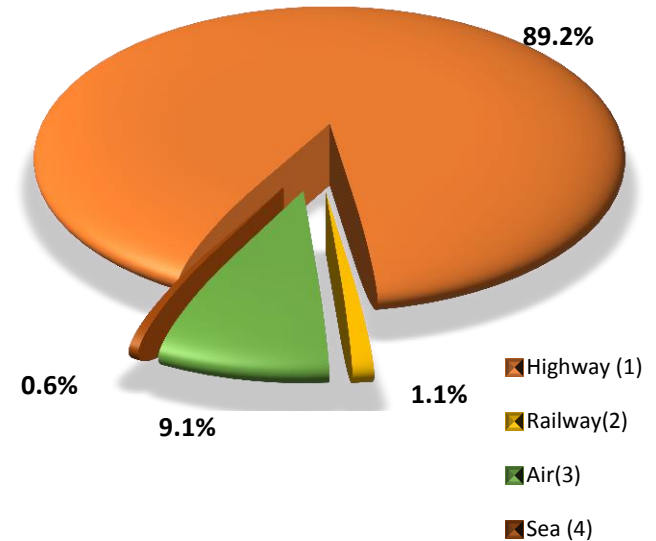
## TURKEY

### DOMESTIC PASSENGER & FREIGHT TRANSPORT

#### Freight Transport



#### Passenger Transport



(1) Freight/passenger transport on the road network of GD of Highways.

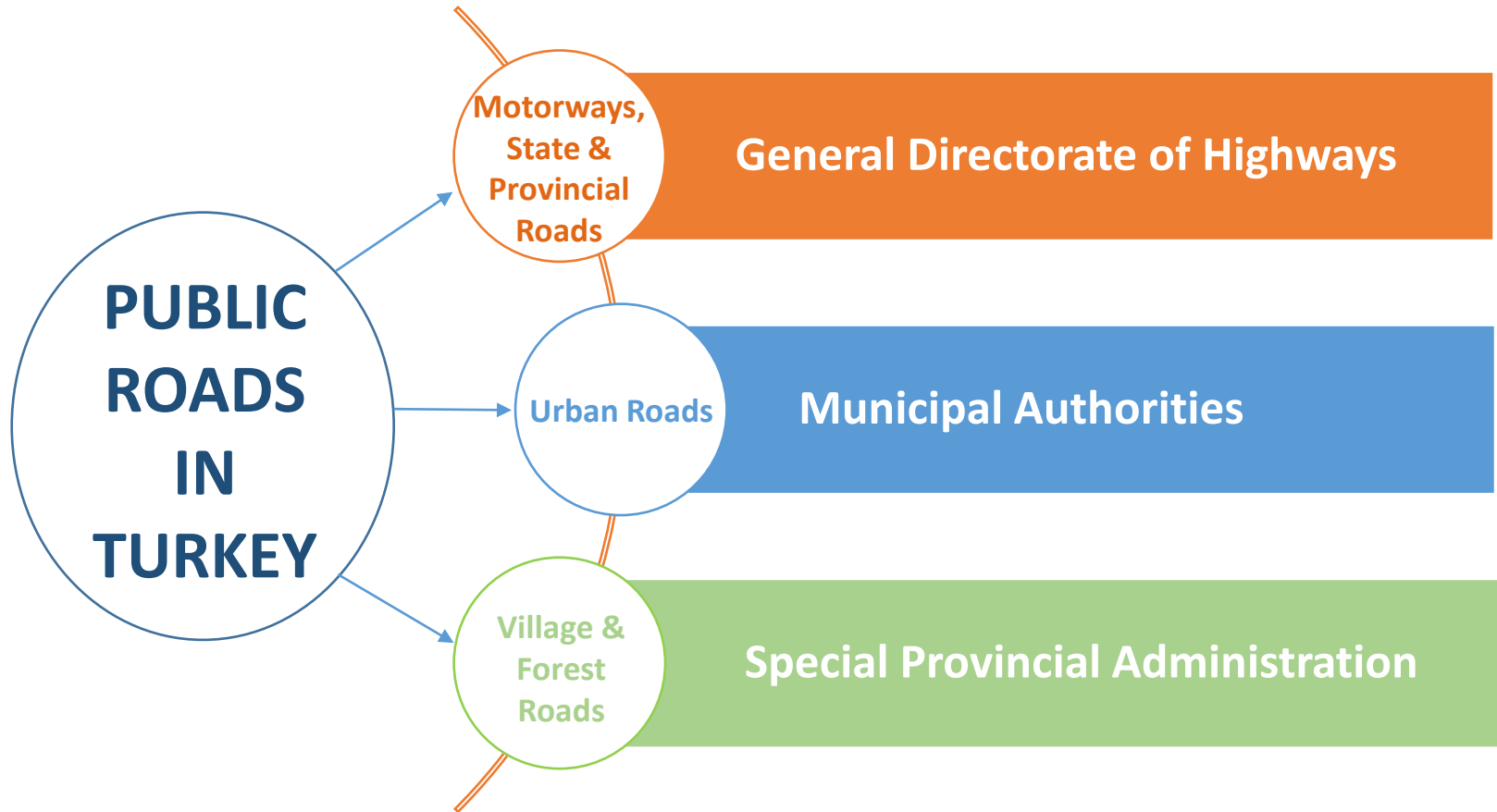
(2) Freight/passenger transport by Turkish State Railway (TCDD). Suburban lines are not included.

(3) Domestic air freight/passenger transport. The amount of freight loaded-unloaded (excluding baggage and mail).

(4) Cabotage transport. Figures of tonne-miles/passenger miles values converted to kilometers.



# ROAD NETWORK IN TURKEY





# GENERAL DIRECTORATE OF HIGHWAYS (KGM)



- 18 Regional Divisions



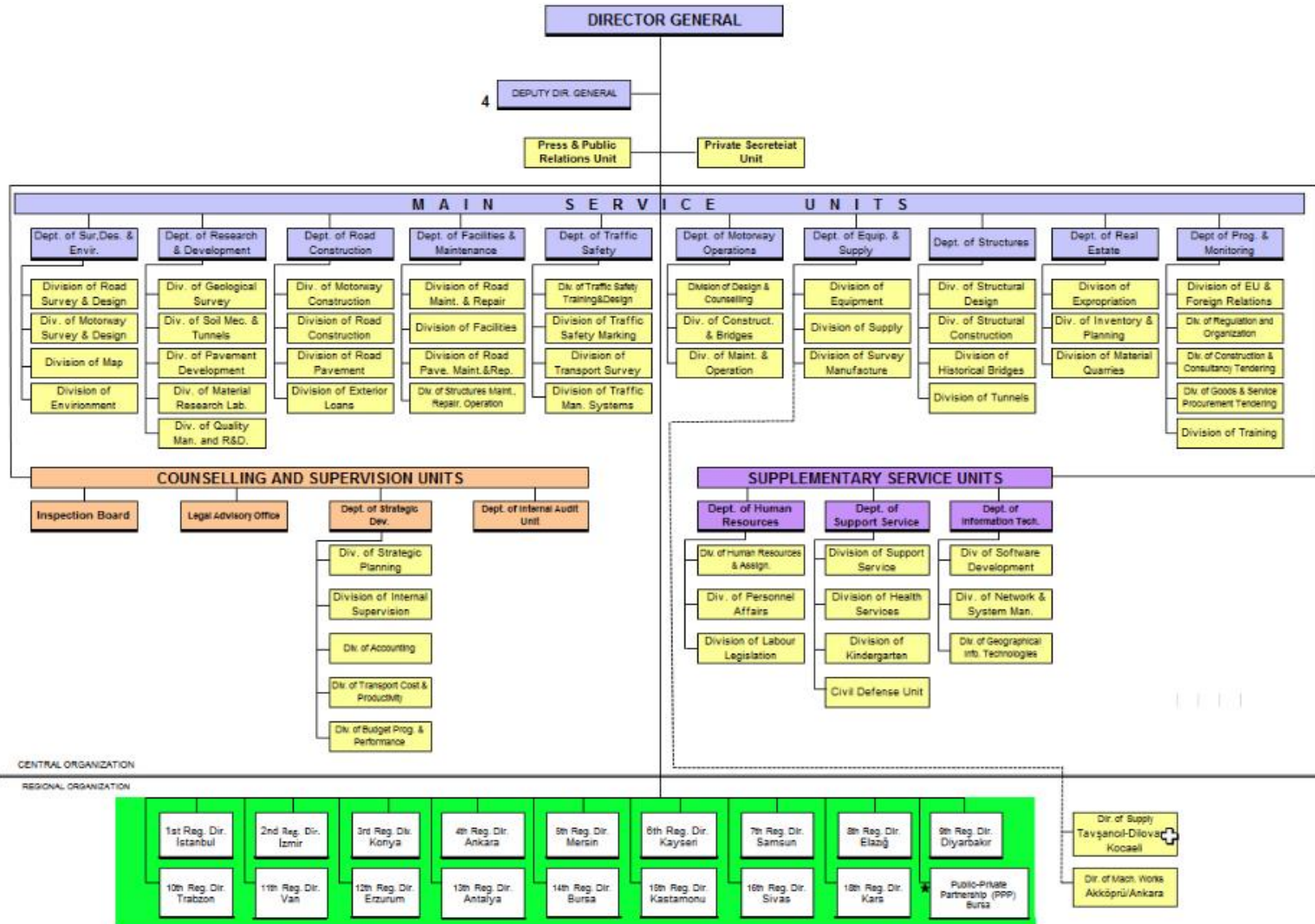
- 116 Maintenance Branches
- 310 Maintenance Houses
- 25 Motorway Maintenance and Operation Offices
- 1 Equipment and Supply Group
- 1 Maintenance Shop in the field throughout the country.



Headquarter of KGM, Ankara



# ORGANIZATION CHART of KGM



\* In order to carry out constructional and operational works of Gebze-Orhangazi-Izmir (including Izmit Gulf Passage and Access Roads) Motorway Project, it is established on a temporary basis as well as limited with contract time.



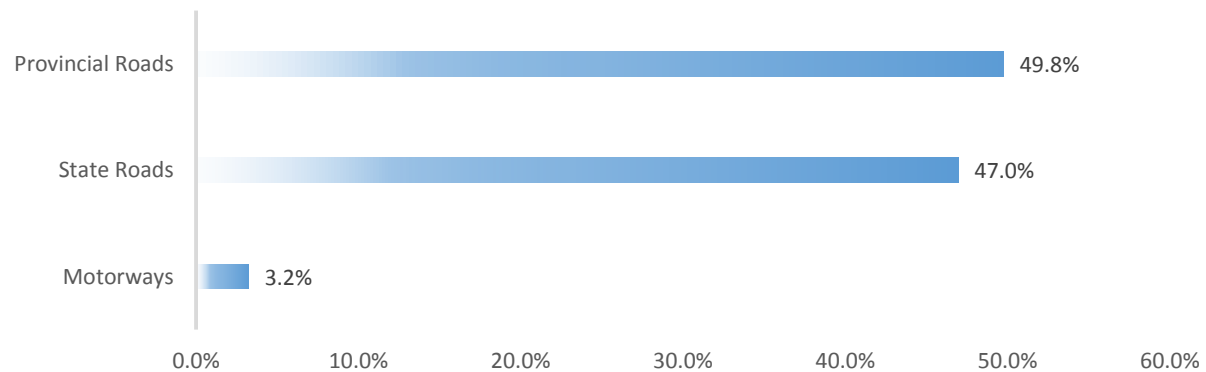


# NATIONAL ROAD NETWORK



National Road Network (01.01.2016)	
Motorways	2.159 km
State Roads	31.213 km
Provincial Roads	33.065 km
66.437 km	

Approximately one third of this network (22.984 km) are dual carriageways

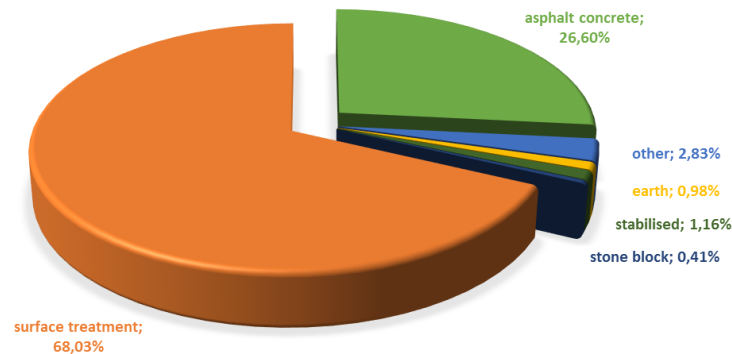




# NATIONAL ROAD NETWORK

01.01.2016	Asphalt Concrete	Surface Treatment	Stone Block	Stabilised	Earth	Others	Total
<b>Motorways</b>	2.159						2.159
<b>State Roads</b>	14.393	16.399	71	45	17	288	31.213
<b>Provincial Roads</b>	2.702	27.327	191	699	614	1.532	33.065
<b>Total</b>	<b>19.384</b>	<b>43.726</b>	<b>262</b>	<b>744</b>	<b>631</b>	<b>1.820</b>	<b>66.437</b>

STATE & PROVINCE ROADS BY PAVEMENT TYPE

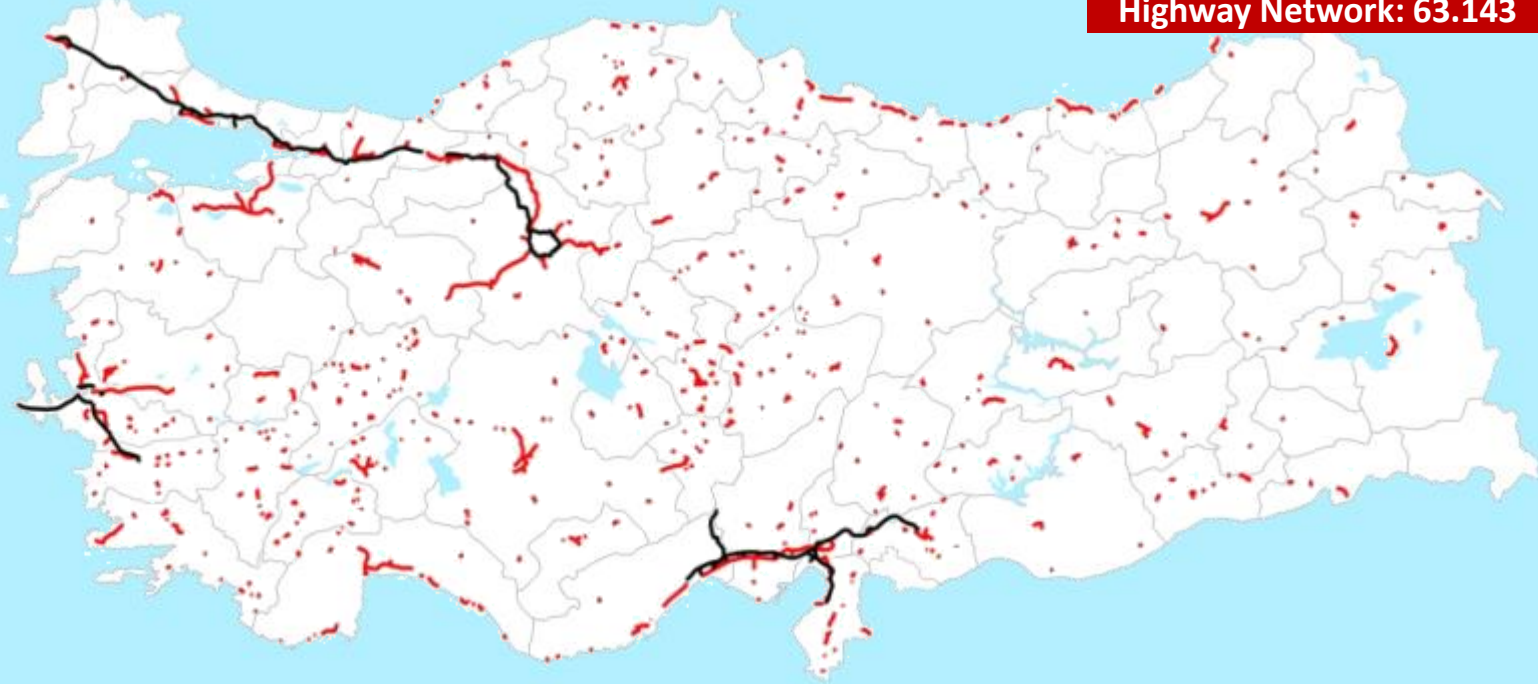


**DUAL  
CARRIAGEWAY  
NETWORK  
(01 Jan 2003)**

**1.714 Km**  
Total Motorway

**4.387 Km**  
Dual Carriageway  
State and Provincial  
Roads

**6.101 Km**  
Total



**DUAL  
CARRIAGEWAY  
NETWORK  
(01 Jun 2016)**

**2.239 Km**  
Total Motorway

**22.076 Km**  
Dual Carriageway  
State and Provincial  
Roads

**24.405 Km**  
Total





# NATIONAL ROAD NETWORK

## DUAL CARRIAGEWAY (DC)







# NATIONAL ROAD NETWORK



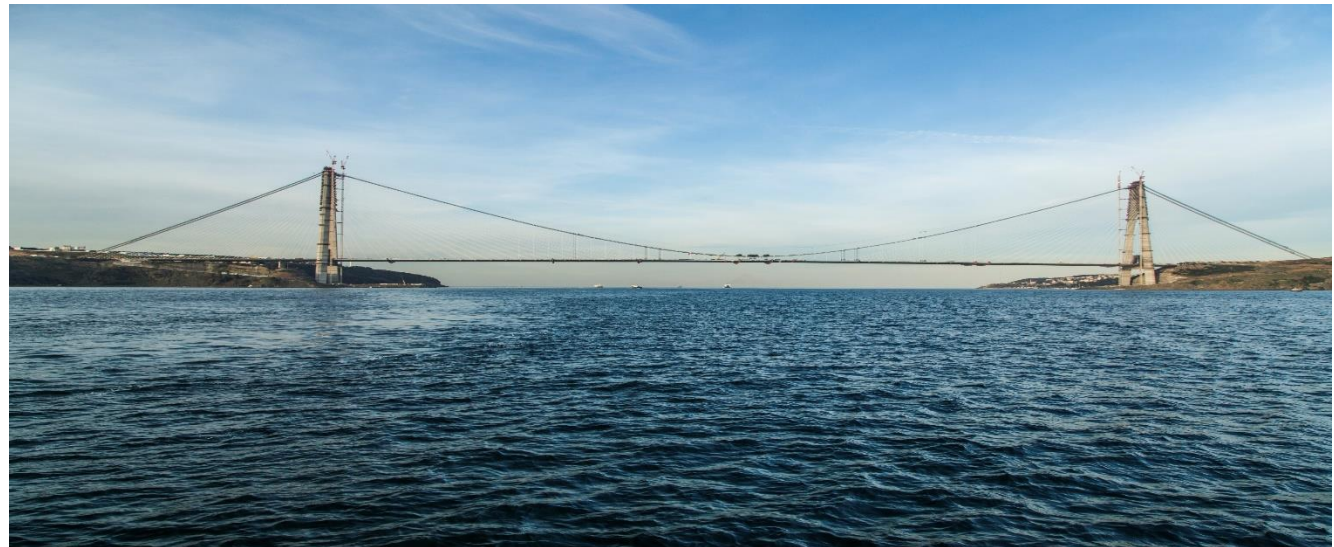
## MOTORWAYS





## Selected Projects

### North Marmara Motorway (Including 3th Bosphorus Bridge (Yavuz Sultan Selim))



- The **widest suspension** bridge in the world  
(with a width of 59 meters)
- The **longest spanning** one that has a rail system on it  
(with a main span of 1408 meters)
- The suspension bridge with the **highest tower** of the world  
(with a height of more than 322 meters)





## Selected Projects

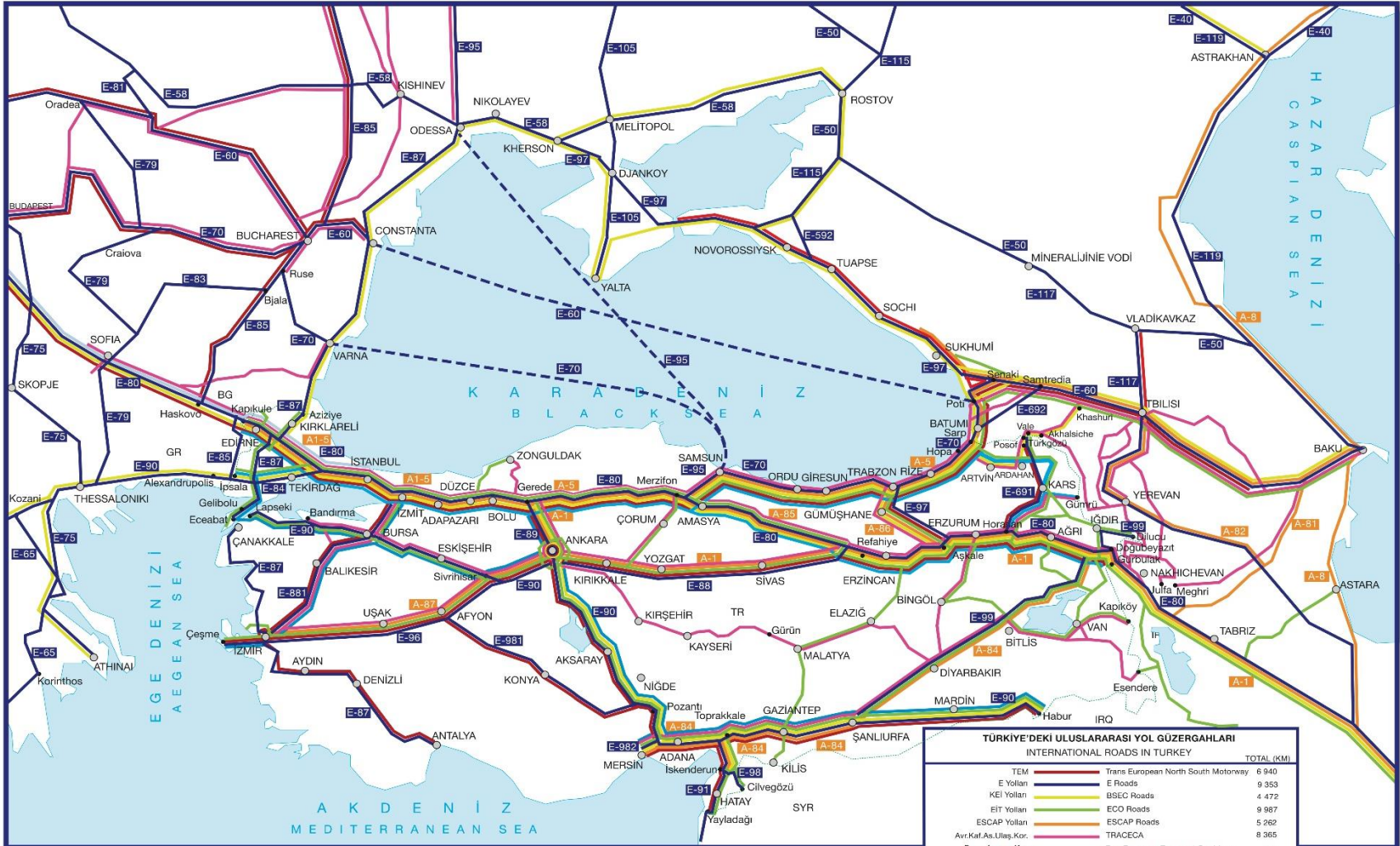
### Gebze-Orhangazi-İzmir Motorway



Izmit Bay Bridge is the 4<sup>th</sup> longest suspension bridge in the world with 1550m main span length.



# INTERNATIONAL ROADS IN TURKEY



TÜRKİYE'DEKİ ULUSLARARASI YOL GÜZERGAHLARI		TOTAL (KM)
INTERNATIONAL ROADS IN TURKEY		
TEM	Trans European North South Motorway	6 940
E Yolları	E Roads	9 353
KEİ Yolları	BSEC Roads	4 472
EİT Yolları	ECO Roads	9 987
ESCAP Yolları	ESCAP Roads	5 262
Avr.Kat.As.Ulaş.Kor.	TRACECA	8 365
Pan - Avrupa Kor.	Pan-European Transport Corridors	261
Avrasya Ulaş.Bağl.	EATL	5 663

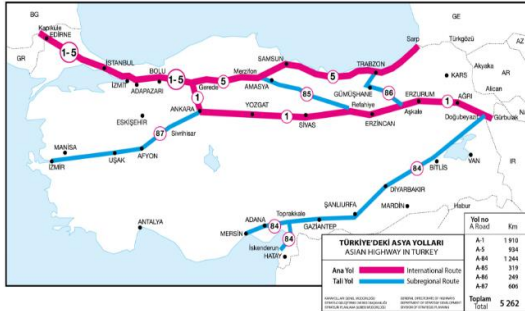
KARAYOLLARI GENEL MÜDÜRLÜĞÜ  
STRATEJİK GÜZERGAHLAR DİJİTAL BAŞKANLIĞI  
STRATEGİK PLANLAMA BÜYÜK MÜDÜRLÜĞÜ

GENERAL DIRECTORATE OF HIGHWAYS  
DEPARTMENT OF STRATEGY DEVELOPMENT  
DIVISION OF STRATEGIC PLANNING

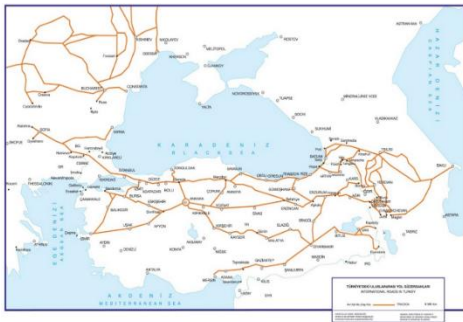




# INTERNATIONAL ROADS IN TURKEY



- TEM (6.940km)
- E-Roads (UN/ECE/AGR) (9.353km)
- BSEC (4.472 km)
- ECO (9.987 km)
- UN/ESCAP (5.247 km)
- TRACECA (8.365 km)
- PAN - Europe Corridor (261 km)
- EATL (5.663 km)





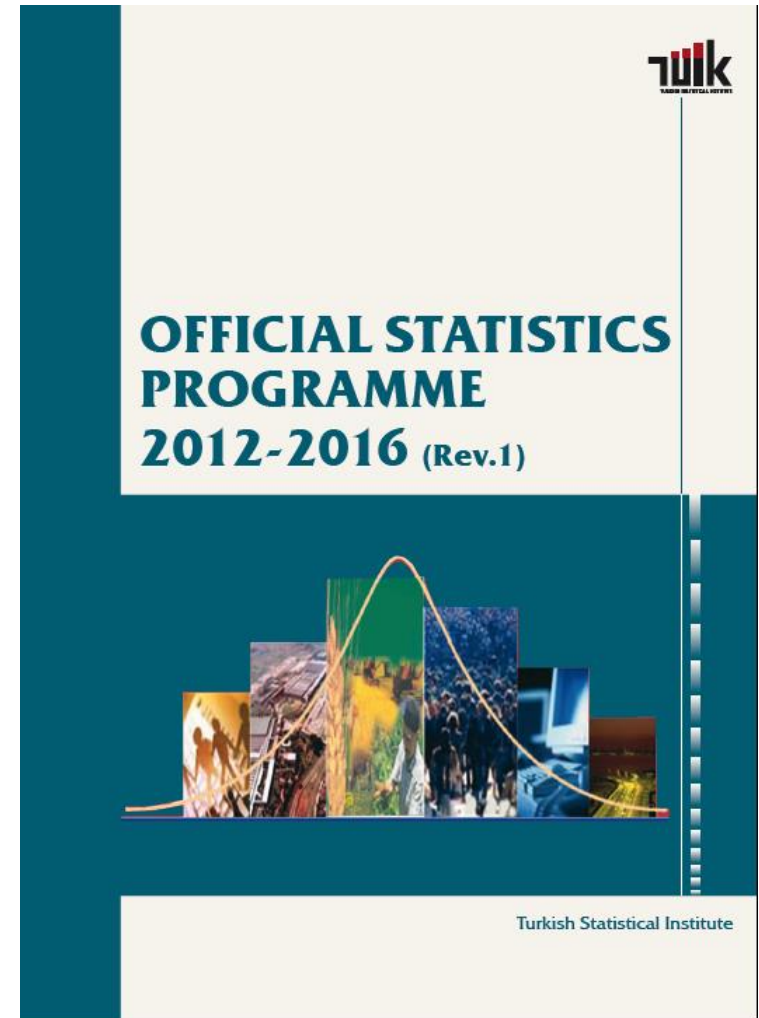
# ROAD TRANSPORT STATISTICS IN TURKEY





## OFFICIAL STATISTICS PROGRAMME

- Turkish Statistical Institute (TurkStat) compile and assess data and information, produce, publish and disseminate statistics on the areas that country needs, and ensure coordination among institutions and organizations that are involved in the statistics process prescribed in the Official Statistics Programme.
- Official statistics are produced and issued by TurkStat and the responsible institutions and organizations specified in the Programme.
- The Programme gives information on the definitions, methods, contents, classifications, and the publication periodicity/schedule of the data and the institutions responsible for compilation and publication.
- In issues related to more than one agency, the responsibility of the production, publication and distribution of official statistics is at the institution that is most relevant in this regard.





# OFFICIAL STATISTICS PROGRAMME

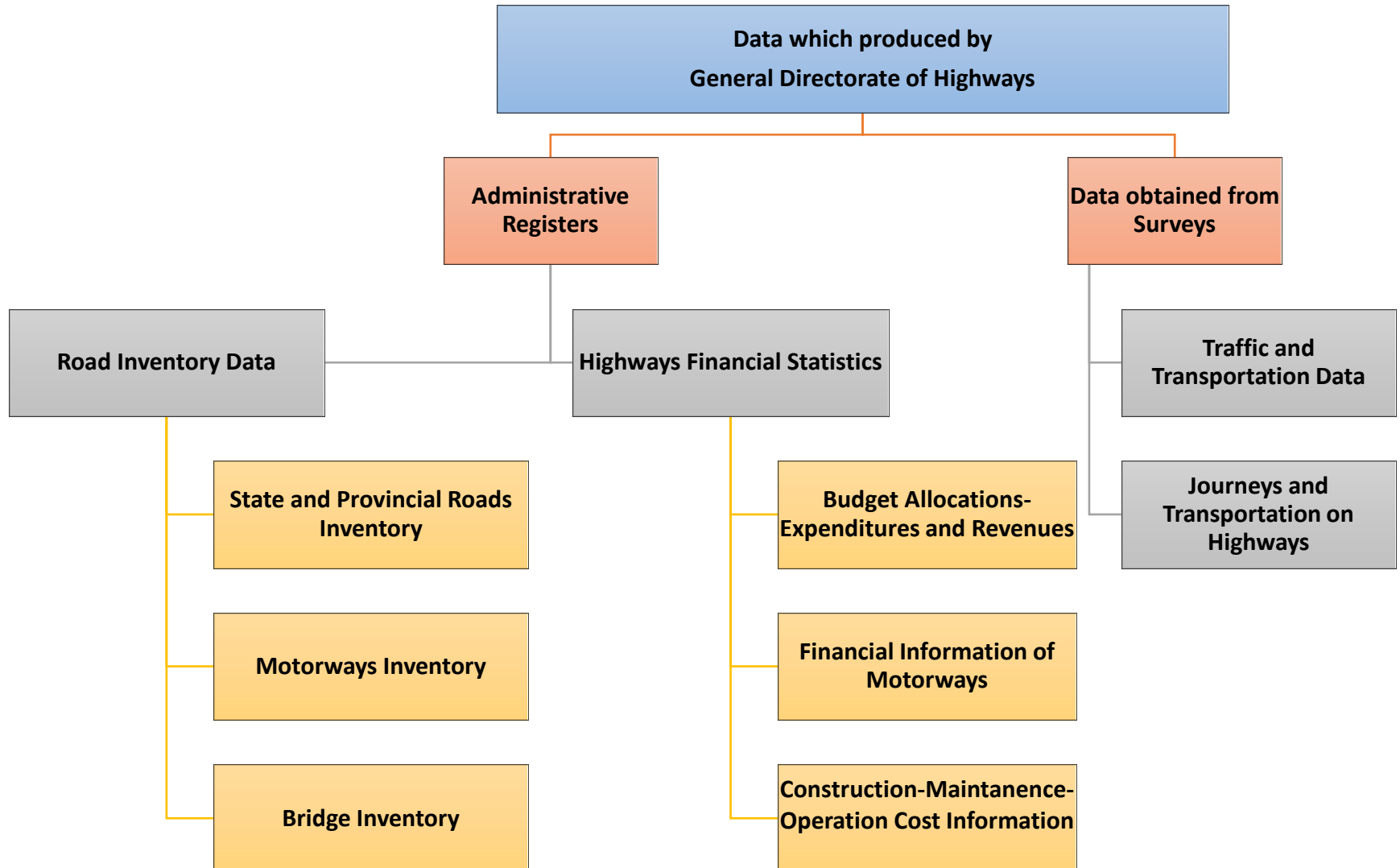


4.4. Transportation Statistics												
Code	Sub Subject	Responsible Institution/ Organization	Related Institutions/ Organizations	Data Collecting Frequency	Dissemination Frequency	Dissemination Period	Data Collecting Methodology	Data Availability Status	Classifications Used	Estimation Level	Release Version	Explanation
4.4.1	Road Motor Vehicles Statistics	TURKSTAT	Ministry of Interior (Turkish National Police)	Continuously	Monthly	t+2 months, t+8 months	Administrative Register	Partially available	-	NUTS Level 3	Press release, Publication	-
4.4.2	Road Traffic Accidents	TURKSTAT	Ministry of Interior (Turkish National Police)	Continuously	Annually	t+11 months	Administrative Register	Partially available	-	NUTS Level 3	Publication	-
4.4.8	Highways Inventory (Except for village and local roads)	Ministry of Transport, Maritime Affairs and Communication (DG for Highways)	TURKSTAT	Continuously	Annually	t+2 months, t+3 months, t+4 months	Administrative Register	Available	-	NUTS Level 3	Electronic media (doc, xls, pdf etc.)	In t+2 months, Motorway Inventory Data; in t+3 months, Bridge Inventory Data; and in t+4 months, State and Provincial Road Inventory Data is disseminated.
4.4.10	Highways Financial Statistics	Ministry of Transport, Maritime Affairs and Communication (DG for Highways)	TURKSTAT	Annually	Monthly, Annually	Monthly (t+20 days), Annual (t+3 months, t+7 months)	Administrative Register	Available	-	Turkey	Electronic media (doc, xls, pdf etc.)	In t+20 days, Financial Information of Motorways; in t+3 months, Budget Allocations-Expenditures and Revenues of Highways; and in t+7 months, Construction-Maintenance-Operating Cost Information of Highways is disseminated.
4.4.11	Journeys and Transportation on Highways	Ministry of Transport, Maritime Affairs and Communication (DG for Highways)	TURKSTAT	Annually	Annually	t+7 months	Study	Available	-	Turkey	Electronic media (doc, xls, pdf etc.)	-
4.4.12	Traffic and Transportation Data	Ministry of Transport, Maritime Affairs and Communication (DG for Highways)	TURKSTAT	Seasonal	Annually	t+7 months	Study	Available	-	-	Electronic media (doc, xls, pdf etc.)	-





# ROAD TRANSPORT DATA





# ADMINISTRATIVE REGISTERS



- Road Inventory Data
- Bridge Inventory Data
- Financial Information of Motorway
- Budget Allocations- Expenditures and Revenues
- Construction-Maintenance-Operation Cost Information

SATIŞ CİNSİNE GÖRE YOL AĞI

DEVLET YOLLARI ÜZ  
(Yıllara ve Cinslerine Göre)

Yıllar Years	Betonar Reinforced Concrete	
	Sayı Number	Uzunluk Length
2002	3318	144.000
2003	3442	153.000
2004	3559	160.000
2005	3660	167.000
2006	3777	173.000

## MOTORWAYS AND BOSPHORUS BRIDGES INCOME (Net)

MONTH	BRIDGES (15 TEMMUZ ŞEHİTLER + FSM KÖPRÜSÜ)		MOTORWAYS		Income (TL)
	Income (TL)	Vehicles	Income (TL)	Vehicles	
January	23.865.315	10.853.296	64.912.284	19.643.127	81.220.722
February	25.232.267	11.160.344	71.779.894	20.845.417	93.867.518
March	26.242.764	11.621.644	76.567.216	22.505.868	100.941.492
April	28.101.829	12.101.824	79.964.221	23.747.635	103.814.509
May	29.364.996	12.614.480	86.288.304	25.112.827	111.376.607
June	27.441.027	11.751.319	79.002.864	24.056.529	101.251.739
July					
August					
September					
October					
November					
December					
<b>TOTAL</b>	<b>160.248.198</b>	<b>70.102.937</b>	<b>469.514.783</b>	<b>135.913.403</b>	<b>605.428.186</b>

THE BUDGET OF GENERAL DIRECTORATE OF HIGHWAYS  
AND RATIO TO CONSOLIDATED BUDGET  
FROM THE ESTABLISHMENT TO DATE

YEAR	GIVEN TO GDR BY BUDGET		CONSOLIDATED BUDGET	RATIO TO CONSOLIDATED BUDGET
	INVESTMENT	TOTAL		
	1.000 TL	1.000 TL	1.000 TL	%
1950	54.140	60.303	1.487.000	4,1
1955	311.998	322.600	2.941.000	11
1960	942.630	971.135	7.282.000	13,3
1965	825.000	1.021.224	14.421.000	7,1
1970	1.478.631	2.335.821	28.860.265	7,7
1971	1.767.500	2.533.403	37.092.900	6,8
1972	1.597.000	2.398.545	50.312.079	4,8
1973	1.919.000	2.880.450	61.023.304	4,7
1974	2.670.399	4.140.368	81.657.577	5,1
1975	3.935.000	5.983.403	106.888.231	5,6
1976	6.585.100	9.102.480	151.519.980	6
1977	10.600.000	13.200.000	222.949.004	5,9
1978	9.855.000	13.856.975	262.753.178	5,3
1979	12.327.721	22.346.720	397.309.279	5,6
1980	17.395.000	30.707.527	756.687.182	4,1
1981	40.600.000	81.341.305	1.540.965.037	5,3
1982	53.244.000	96.503.959	1.780.640.059	5,4
1983	73.060.000	129.579.000	2.558.902.500	5,1
1984	96.350.000	162.093.710	3.211.992.000	5
1985	105.490.000	191.588.270	5.412.082.049	3,5
1986	150.150.000	284.941.085	7.104.111.000	4
1987	202.235.000	362.670.000	10.885.686.000	3,3
1988	340.045.000	570.745.000	20.840.000.000	2,7
1989	576.350.000	922.344.000	32.733.446.000	2,8
1990	1.209.000.000	1.819.109.000	63.925.354.000	2,8
1991	1.762.100.000	2.757.586.000	105.217.150.000	2,6
1992	3.124.200.000	5.566.200.000	207.880.000.000	2,7
1993	6.693.000.000	10.832.400.000	398.710.000.000	2,7
1994	13.637.500.000	20.389.500.000	823.396.307.000	2,5
1995	10.493.000.000	27.735.900.000	1.335.978.053.000	2,1
1996	32.737.000.000	58.348.000.000	3.558.506.822.000	1,6
1997	69.033.700.000	124.556.874.000	6.344.685.500.000	2
1998	103.080.000.000	213.509.525.000	14.749.475.000.000	1,5
1999	153.650.000.000	329.809.135.000	27.186.500.000.000	1,2
2000	272.615.000.000	589.159.905.000	48.702.436.000.000	1,2
2001	593.440.000.000	1.031.980.299.000	48.519.490.000.000	2,1
2002	940.100.000.000	1.733.273.200.000	98.131.000.000.000	1,8
2003	1.454.695.000.000	2.348.106.000.000	147.230.170.000.000	1,6
2004	1.303.139.000.000	2.301.875.000.000	150.556.129.000.000	1,5
2005	2.356.830.000.000	3.482.771.000.000	156.088.874.910.000	2,2

Note : Motorway revenue is not included in;  
1-Fuel Consumption Fund from 1985 on,  
2-Public Participation Fund from 1986 on,  
3-Allocation from Privatization in 1998.

YEAR	GIVEN TO GDR BY BUDGET		THE CENTRAL GOVERNMENT BUDGET	RATIO TO THE CENTRAL GOVERNMENT BUDGET
	INVESTMENT	TOTAL		
	2006-2007-2008 (YTL) and 2009-2010-2016 (TL)			%
2006	2.714.700.000	3.963.346.000	174.321.616.732	2,3
2007	1.877.104.000	3.408.388.000	204.988.545.401	1,7
2008	1.759.491.000	3.391.135.000	222.553.216.800	1,5
2009	2.457.115.255	4.132.260.655	259.155.933.362	1,6
2010	3.073.000.000	4.989.051.000	286.981.303.810	1,7
2011	3.300.000.000	5.511.382.000	312.572.607.330	1,8
2012	3.631.499.000	6.185.358.000	350.948.317.871	1,8
2013	3.816.000.000	6.962.374.000	405.283.274.000	1,72
2014	4.016.000.000	7.157.071.000	438.099.609.000	1,63
2015	4.219.000.000	7.246.304.000	474.531.234.000	1,52
2016	9.505.449.000	12.368.075.000	572.592.476.000	2,16



# TRANSPORTATION SURVEYS



## Traffic and Transportation Surveys

Traffic Counts

Axle Loading Surveys

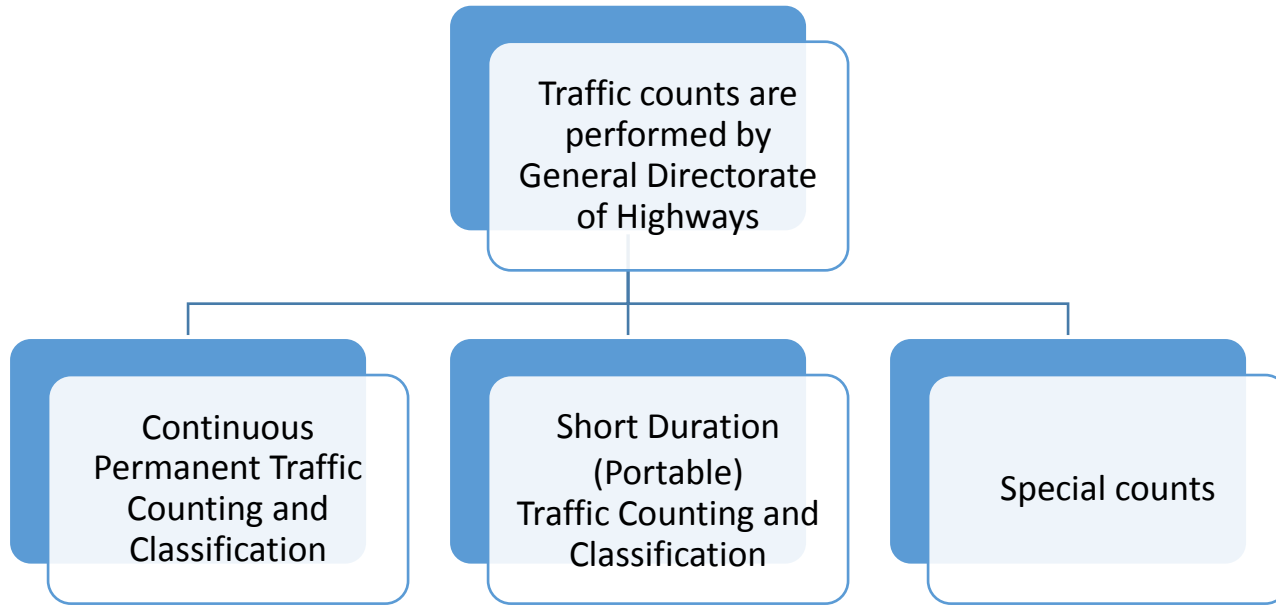
Origin-Destination (O-D) Surveys

Speed Surveys

Highway Transportation Surveys performed to establish a basis for transportation planning process and to contribute to make highway's design, construction, maintenance and management facilities as rationalized and scientific ways.



# TRANSPORTATION SURVEYS



Continuous Permanent Traffic Counter & Classifier

Short Duration (Portable) Traffic Counter & Classifier







# TRANSPORTATION SURVEYS

## Traffic Counting Locations (2015)



- Continuous Permanent Traffic Counting & Classifying Station
- Short Duration (Portable) Traffic Counting and Classifying Station



# TRANSPORTATION SURVEYS



## Traffic Counts

### Daily Traffic Data

- \* Hourly traffic data

### Weekly Traffic Data

- \* Weekdays traffic data
- \* Weekend traffic data

### Traffic Volume Data(Average Values)

Annual Average Daily Traffic(AADT)

Seasonal Average Daily Traffic(SADT)

Monthly Average Daily Traffic (MADT)

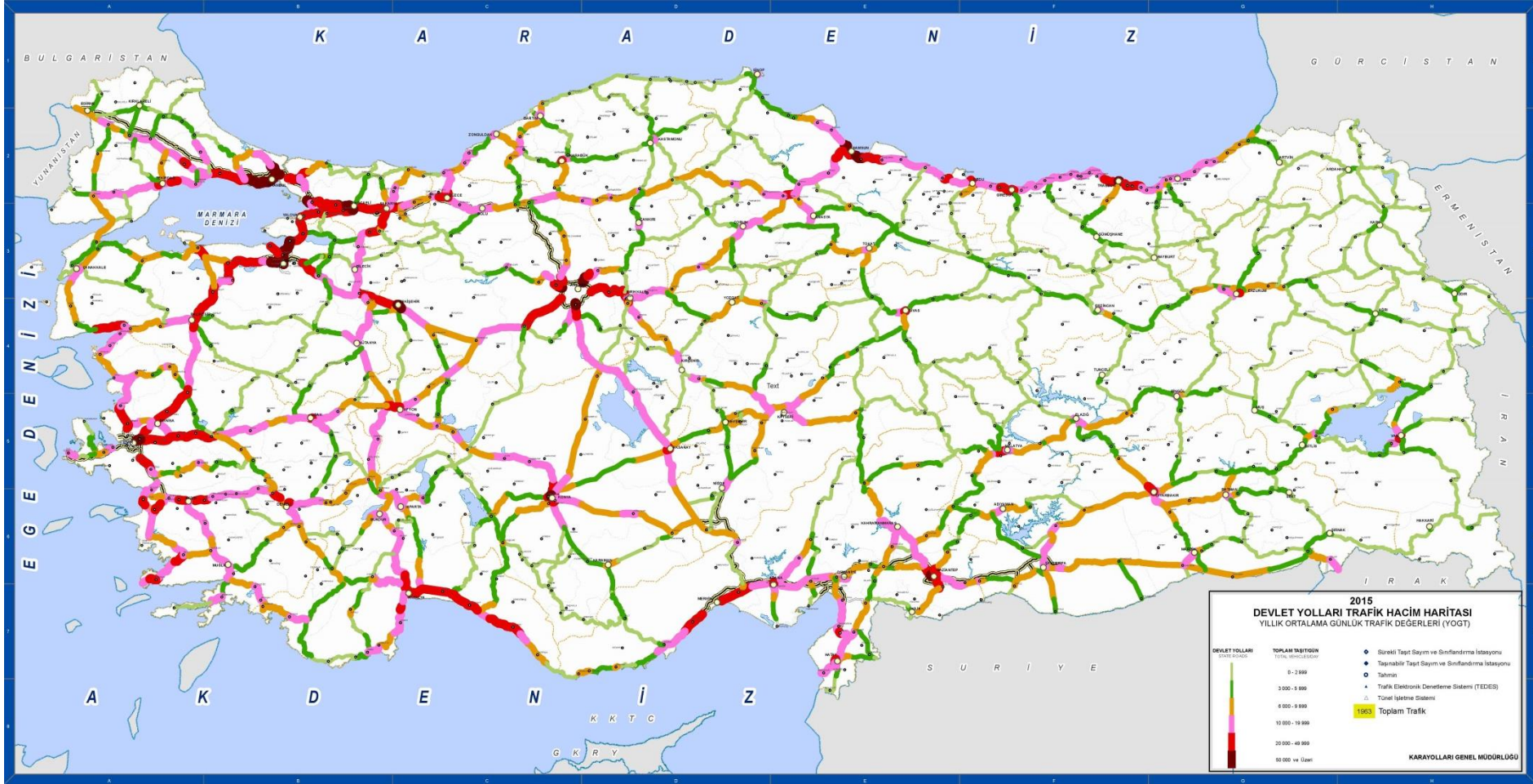






# TRANSPORTATION SURVEYS

## State Roads Traffic Volume Map (2015)







# TRANSPORTATION SURVEYS

## Axle Loading Surveys

- Average loads per vehicle according to load types and vehicle categories
- Distribution of load types according to vehicles categories
- Distribution of load types according to carried load and axle types according to vehicle categories have been estimated using the results of Axle Load and Origin-Destination surveys, which are realized every year





# TRANSPORTATION SURVEYS



## Origin-Destination Surveys

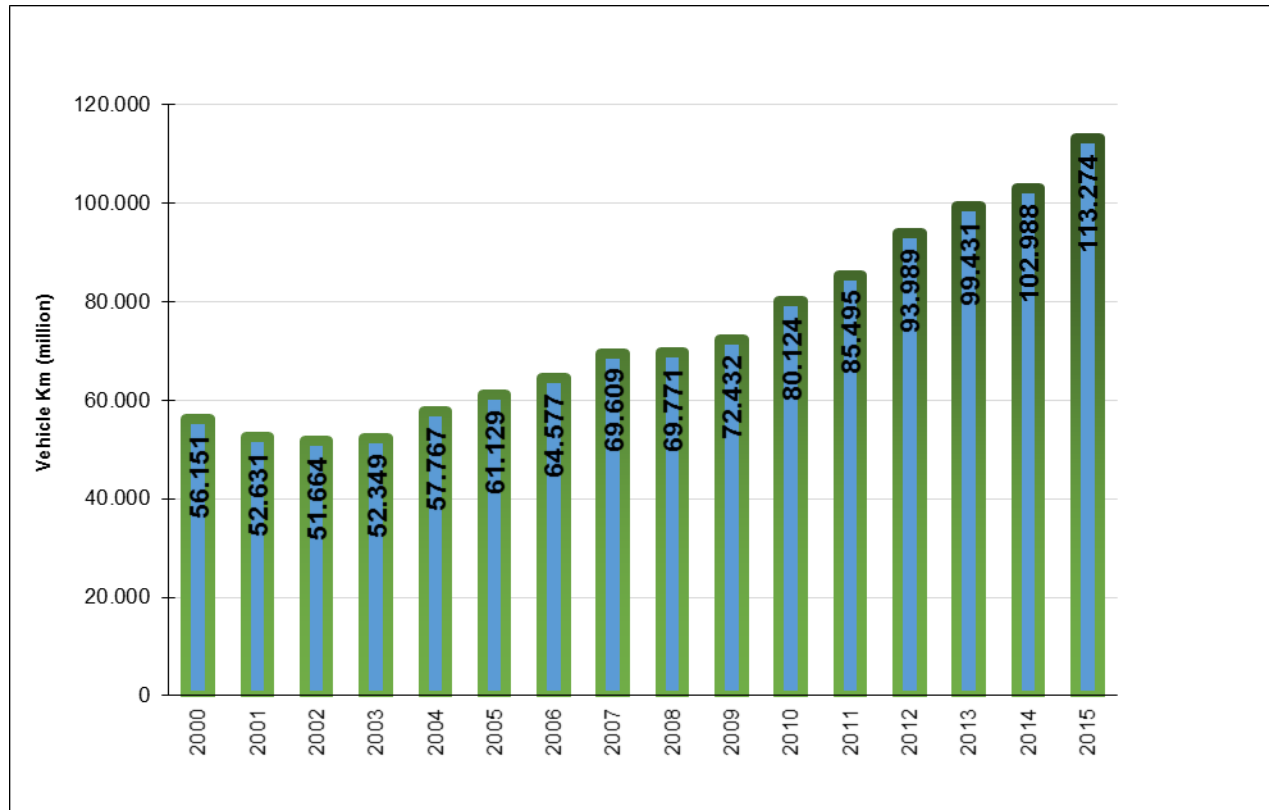
O-D surveys have been conducted together with axle loading surveys in each year. Other O-D surveys are done in accordance to special demands excluding annual programs.





# TRANSPORTATION SURVEYS

## Vehicle-Kilometre by years



Vehicle-Km values include the roads under the responsibility of General Directorate Of Highways.  
Urban roads not included.

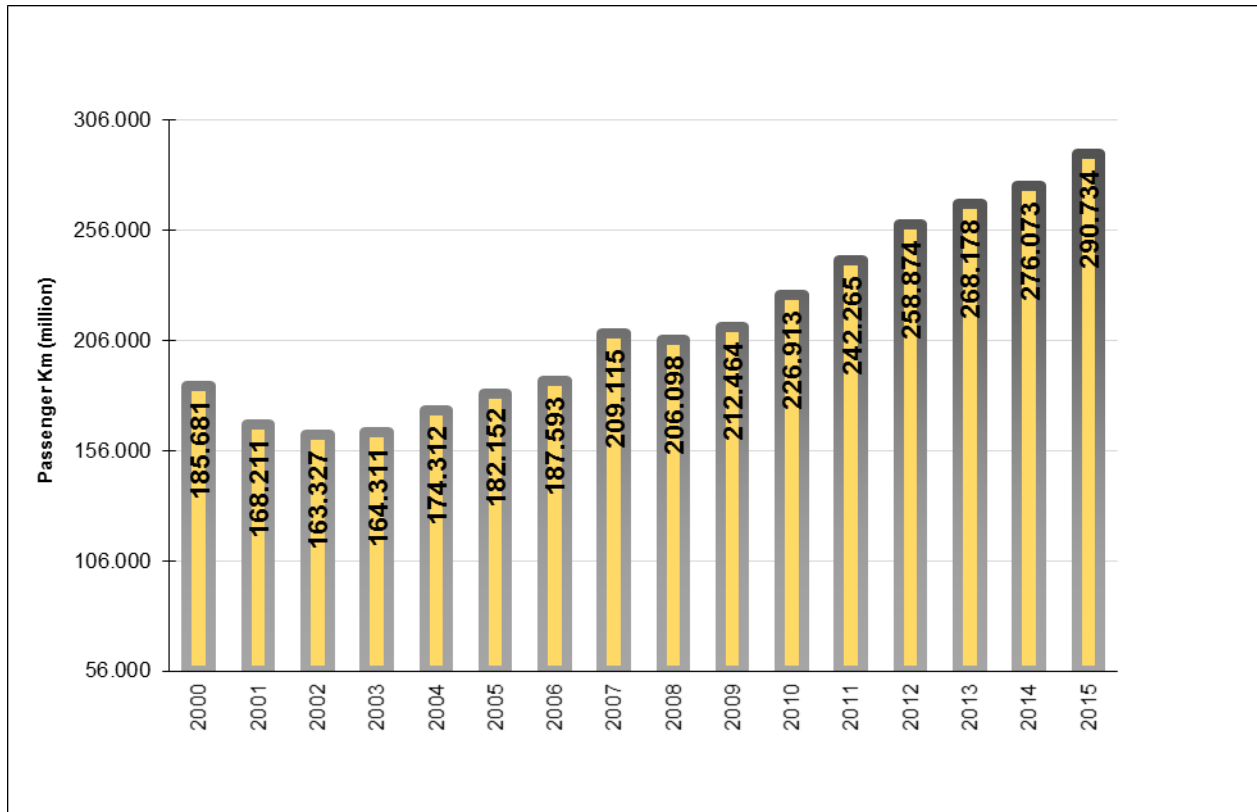




# TRANSPORTATION SURVEYS



Passenger Kilometre by years

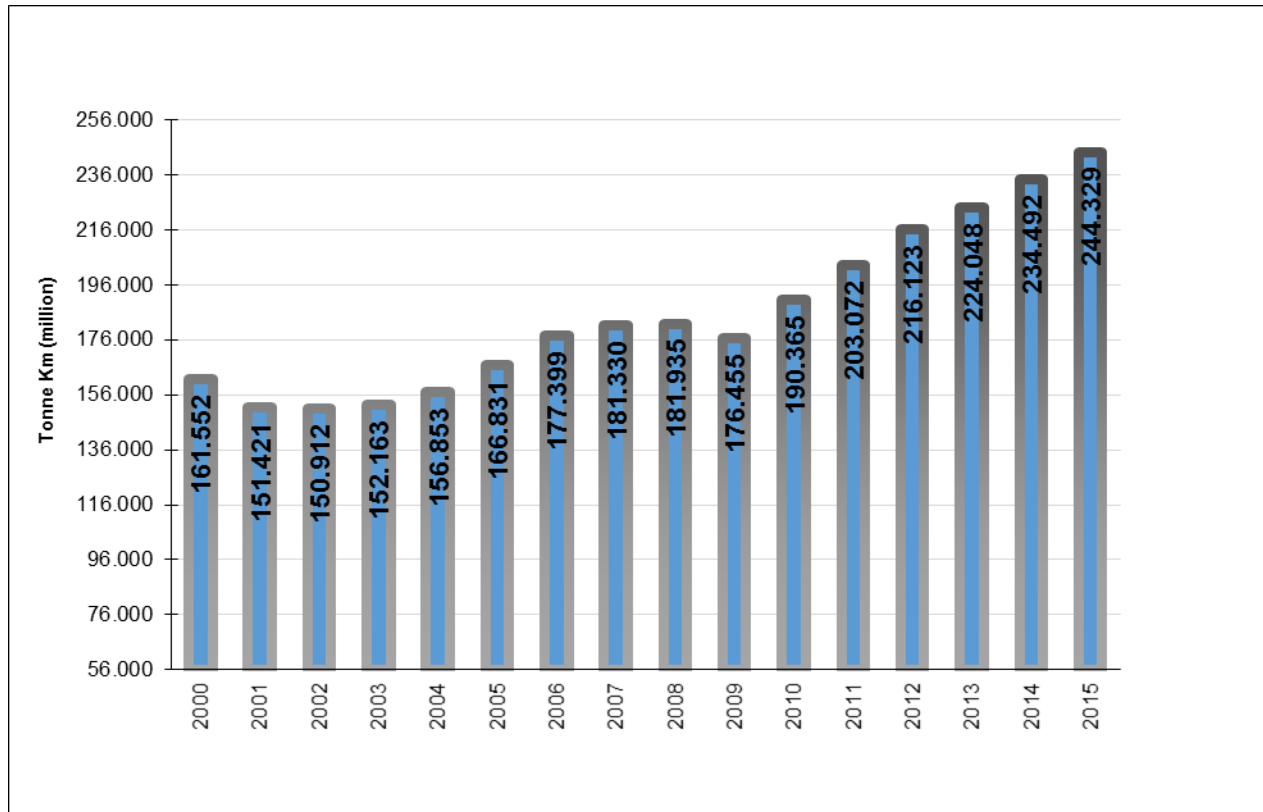


Passenger-Km values include the roads under the responsibility of General Directorate Of Highways.  
Urban roads not included.



# TRANSPORTATION SURVEYS

Tonne-Kilometre by years



Tonne-Km values include the roads under the responsibility of General Directorate Of Highways.



# TRANSPORTATION SURVEYS

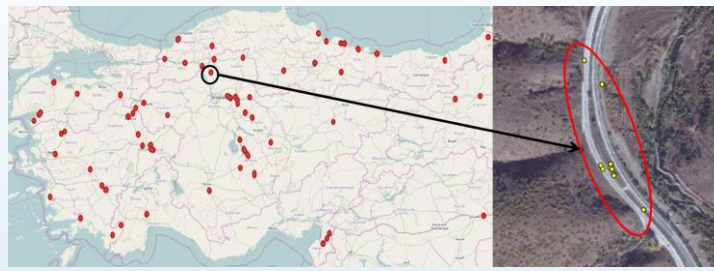


## Speed Surveys

According to vehicle classes and time:

- Average speed
- Maximum speed
- Minimum speed
- % 85 speed





# ROAD SAFETY STATISTICS IN TURKEY







# Road Safety



## STRATEGIC PLAN OF TURKISH HIGHWAYS 2012-2016

**GOAL 1: Mobility**

**GOAL 2: Road & Traffic Safety**

**GOAL 3: Organizational Excellence**

**GOAL 4: Preservation and Improvement of Highways**

**GOAL 5: Sensitive to Human Being & Environmental Stewardship**



# Road Safety Statistics



## *Road safety databases*

***Turkish Statistics Institute ([www.tuik.gov.tr](http://www.tuik.gov.tr))***

*- keeps a computerized database*

***Police Department and Gendarmerie***

*- collect and compile*



# Road Safety Statistics



## Official Statistics Programme

- Statistics related to traffic accidents are compiled from the administrative registers of the **Security General Directorate** and the **Command of Gendarmerie** and issued by press releases on the web site of the Turkish Statistical Institute (TURKSTAT) according to Official Statistical Programme (OSP).

4.4. Transportation Statistics												
Code	Sub Subject	Responsible Institution/ Organization	Related Institutions/ Organizations	Data Collecting Frequency	Dissemination Frequency	Dissemination Period	Data Collecting Methodology	Data Availability Status	Classifications Used	Estimation Level	Release Version	Explanation
AA.2	Road Traffic Accidents	TURKSTAT	Ministry of Interior (Turkish National Police)	Continuously	Annually	±11 months	Administrative Register	Partially available	-	NUTS Level 3	Publication	-



# Road Safety Statistics



## Accident Report

ÖLÜMLÜ/YARALANMALI TRAFİK KAZASI TESPİT TUTANAĞI Sayfa 1/.....	
<b>A. TUTANAĞI DÜZENLEYEN</b>	
BİRİM ADI:	KAZA SIRA NO:
TELEFON NO:	
<b>B. KONUM BİLGİSİ</b>	
Koordinat X-E0 [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]	
Koordinat Y-N [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]	
<b>C. KAZANIN YERİ VE ZAMANI</b>	
TARİH	YOLUN TİPİ
HAF. GÜNÜ	1 Bölünmüş yol 2 Tek yönlü yol 3 İki yönlü yol 4 Diğer
SAAT/DK.	KAPLAMA CİNSİ
İL	1 Asfalt 4 Parke 2 Sathi Kaplama 5 Stabilize 3 Beton 6 Toprak
İLÇE	YOLUN SINIFI
MAH./KÖY	1 Cadda 4 Devlet karayolu 7 Orman yolu 10 Park alanı 13 Diğer (.....)
KAZA YERİ ADRESİ	
.....(caddesi / sokağı) üzeri.....önü / yanı / arkası	
.....(caddesi / sokağı) ile..... (cad./sokağı) kavşağında	
.....(ili / ilçesinden).....(ili / ilçesi) yönüne	
.....km.....metrede	
<b>D. YOL GÜVENLİK EKİPMANLARI İLE ÇEVRE VE DİĞER ÖZELLİKLERİ</b>	
1 Var 2 Yok 3 Uygun Değil	- İŞIKLI/SESLİ İŞARET [ ] 1 Var (Trafik Lambası) 2 Var(Bozuk) 3 Yok
- OTO KORKULUK [ ]	- AYDINLATMA [ ] 3 Yok
- YAYA YOLU [ ] .....cm	- TRAFİK GÖREVLİSİ [ ] 1 Var 2 Yok
- EMNİYET ŞERİDİ / BANKET [ ] .....cm	- GÖRÜŞE ENGEL CİSİM [ ]
- YOL ŞERİT ÇİZGİSİ [ ]	Var ise adı: .....
- TRAFİK İŞARET LEVHASI [ ]	- KAZA SONRASI ARAÇ HARİCİNDE HASAR GÖREN DİĞER UNSURLAR
Levha Adı: Kaza Nok.Uzaklık	Var ise adı-1: .....
1) ..... m	Var ise adı-2: .....
2) ..... m	- YOLDA ÇALIŞMA [ ]
3) ..... m	Var ise; İşaretleme Var [ ] Var ise; İşaretçi Personel Var [ ]
<b>E. YOLUN GEOMETRİK ÖZELLİĞİ</b>	
YATAY GÜZERGAH	1 Düz yol 2 Viraj 3 Tehlikeli viraj
DÜŞEY GÜZERGAH	1 Eğimsiz 2 Eğimli 3 Tehlikeli eğim 4 Tepe üstü
KAVŞAK	1 Üç yönlü (T) 2 Üç yönlü (Y) 3 Dört yönlü 4 Dönel kavşak
GEÇİT DURUMU	1 Kontrollü demiryolu 2 Kontrolsüz demiryolu 3 Okul geçidi 4 Yaya geçidi 5 Geçit yok
DİĞER ÖZELLİK	1 Dar yol 2 Dar köprü 3 Köprü üstü 4 Köprü altı
	5 Manfez üstü 6 Kasis 7 Tünel içi 8 Hiçbiri
<b>F. KAZAYA AIT ÖZELLİKLER</b>	
OLUŞ ŞEKLİNE GÖRE KAZA TÜRÜ	
1- [ ]	1 Karşılıklı çarpışma 2 Arkadan çarpma 3 Yandan çarpma 4 Yan yana çarpışma 5 Duran araca çarpma 6 Zincirleme çarpışma 7 Çoklu çarpışma
2- [ ]	8 Engel/cisim ile çarpışma 9 Yayaya çarpma 10 Hayvana çarpma 11 Devrilme, savrulma, takla 12 Yoldan çıkma 13 Araçtan insan düşmesi 14 Araçtan cisim düşmesi
ARAÇ SAYISINA GÖRE KAZA TÜRÜ	
[ ]	1 Tek araçlı 2 İki araçlı 3 Çok araçlı (Sayısı: [ ])
<b>G. YOL SORUNU</b>	
[ ]	1 Tekerlek izinde oturma 2 Şerit çökmesi 3 Kısmi veya münferit çökme 4 Düşük banket 5 Yol sahunda gevşek malzeme
[ ]	6 Yolda münferit çukur 7 Diğer (.....)
[ ]	8 Kazaya etken yol sorunu yok
<b>H. KAZA SONUCU</b>	
İLK ÇARPISHA YERİ	
[ ]	1 Yol üzerinde 2 Banket üzerinde 3 Orta refüjde 4 Yol kenarında (Banket dışı) 5 Yaya kaldırımında 6 Diğer 7 Tespit edilemedi
SÜRÜCÜ	
YOLCU	
YAYA	
TOPLAM	
ÖLÜ SAYISI	
YARALI SAYISI	
YOL SORUNUNA AIT UYARICI İŞARETLEMELERİ	
[ ]	1 Var 2 Yok



## Accident Report (Accidents Involving Death or Injury)

- Time and site of the accident (Coordinate, province, district ..)
- Road class and other information about road (number of lane, length of lane ..)
- Accident Type
- Result (Number of death or injured persons)
- Traffic Safety Equipment Existence
- Daylight situation, fog
- Road defect status
- Geometrical characteristics of road

etc.





# Road Safety Statistics



## Accident Report

### I. KAZAYA KARIŞAN SÜRÜCÜ VE ARAÇLAR

ARAC	T.C. KİMLİK NO (Yabancı ise Dış Arac Ve Pasaport No)	SÜRÜCÜNÜN ADI SOYADI	BAMA ADI		DOĞUM YILI	CİNSİYETİ (B/K)	PLAKA	MARKA	YERLİ BELGE TÜREĞÜ	ARAÇ SAHİBİNİN ADI SOYADI (Şirket ise Ünvanı)	Sayfa 2 /	
			ANNE ADI	DOĞUM YILI							İSLETEN ARAC SAHİBİ DEĞİŞİR SIRMA ADI	
1												
2												
3												
ARAC NO												
ARACIN CİNSİ												
YABANCI TESCİLLİ İSE ÜLKE ADI												
ARACIN KAZA SONRASI KONUMU												
ARACIN KULLANIM AMACI												
KAZA ÖNCESİ ARAÇ HAREKETİ												
ARACIN HIZI												
FREN İZİ UZUNLUĞU												
ARAÇ YÜKLÜ İSE YÜKÜNÜN CİNSİ												
İSTİLAH HADDİ												
AŞILMA MİKTARI												
ARAÇIN DARBEYİ ALDIĞI İLK BÖLÜM												
SİGORTA ŞİRKETİ ADI												
SİGORTA ACENTE NO												
SİGORTA POLİÇE NO												
DİĞER SİGORTA TÜRÜ												
KAZAYA ETKİ EDEN ARAÇ AKSAMLARI												
FENİ MUAHENE BİTİŞ TARİHİ												
ARACIN HASAR DERECESESİ YANMA DURUMU												
ARACIN YAKIT CİNSİ												
SÜRÜCÜ BELGESİ												
ÖĞRENİM DURUMU												
ALKOL KONTROL DURUMU												
ALKOL KONTROL SONUCU (Promil)												
PSİKO-FİZİKSEL DURUM ŞÜPHESİ												
KORUYUCU TERTİBATLAR												
İRTİBAT TELEFONU												
KAZA SONUCU												
SÜRÜCÜ KURAL												
İHLALİ												



Accident Report (Accidents Involving Death or Injury)

- Participants (number and type) and their informations (such as gender, age, alcohol status..)
- Vehicle Type
- Skid Mark (Length)
- Driving Liscence Informations
- Insurance Firm Informations
- etc.



# Road Safety Statistics



- Until year 2015 the number of persons killed in road traffic accident statistics included the deaths only at accident scene.
- In scope of road traffic accidents data being in accordance with the international standards, statistics on the people who were injured at road traffic accidents and sent to health facilities who died within 30 days after the accident due to related accident and its impacts are included in the statistics of year 2015 and submitted to users as the first time.



# Road Safety Statistics



## Published Statistics

Number of vehicles registered, driver licence, accident, persons killed and injured

Number of traffic accidents involving death or injury, persons killed and injured according to settlement

Number of traffic accidents involving death or injury, persons killed and injured by province

Number of victims of traffic accidents involving death or injury

Number of faults causing traffic accidents involving death or injury

Faults causing traffic accidents involving death or injury

Number of vehicles registered to traffic vehicles involved in accidents with death or injury, drivers killed and injured by vehicle type

Number of road traffic accidents involving death or injury, persons killed and injured by months

Number of road traffic accidents involving death or injury, persons killed and injured by day of the week

Number of accidents involving death or injury, persons killed and injured by daylight condition



# Road Safety Statistics



## Number of vehicles registered, driver licence, accident, persons killed and injured, 2006 - 2015

Year	Number of vehicles registered to traffic	Number of persons with driver licence	Total number of accidents	Number of accidents involving death or injury	Number of accidents involving material loss only	Number of persons killed		Number of persons injured	
						Total At accident scene	Accident follow-up <sup>(1)</sup>		
2006	12 227 393	17 586 179	728 755	96 128	632 627	4 633	4 633	-	169 080
2007	13 022 945	18 422 958	825 561	106 994	718 567	5 007	5 007	-	189 057
2008	13 765 395	19 377 790	950 120	104 212	845 908	4 236	4 236	-	184 468
2009	14 316 700	20 460 739	1 053 346	111 121	942 225	4 324	4 324	-	201 380
2010	15 095 603	21 548 381	1 106 201	116 804	989 397	4 045	4 045	-	211 496
2011	16 089 528	22 798 282	1 228 928	131 845	1 097 083	3 835	3 835	-	238 074
2012	17 033 413	23 760 346	1 296 634	153 552	1 143 082	3 750	3 750	-	268 079
2013	17 939 447	24 778 712	1 207 354	161 306	1 046 048	3 685	3 685	-	274 829
2014	18 828 721	25 972 519	1 199 010	168 512	1 030 498	3 524	3 524	-	285 059
2015	19 994 472	27 489 150	1 313 359	183 011	1 130 348	7 530	3 831	3 699	304 421

TurkStat, Road Traffic Accident Statistics, 2015

(1) Includes the deaths within 30 days after the traffic accidents due to related accident and its impacts for people who were injured and sent to health facilities.

- Denotes magnitude null.





# Road Safety Statistics



## Number of traffic accidents involving death or injury, persons killed and injured according to settlement, 2006 - 2015

Year	Number of accidents involving death or injury			Number of persons killed						Number of persons injured		
				At inhabited area			At uninhabited area					
	Total	Inhabited area	Uninhabited area	Total	At accident scene	Accident follow-up <sup>(1)</sup>	Total	At accident scene	Accident follow-up <sup>(1)</sup>	Total	Inhabited area	Uninhabited area
2006	<b>96 128</b>	65 410	30 718	1 638	1 638	-	2 995	2 995	-	<b>169 080</b>	99 999	69 081
2007	<b>106 994</b>	73 219	33 775	1 748	1 748	-	3 259	3 259	-	<b>189 057</b>	113 598	75 459
2008	<b>104 212</b>	71 567	32 645	1 433	1 433	-	2 803	2 803	-	<b>184 468</b>	111 064	73 404
2009	<b>111 121</b>	76 429	34 692	1 549	1 549	-	2 775	2 775	-	<b>201 380</b>	122 036	79 344
2010	<b>116 804</b>	80 517	36 287	1 365	1 365	-	2 680	2 680	-	<b>211 496</b>	129 051	82 445
2011	<b>131 845</b>	92 443	39 402	1 346	1 346	-	2 489	2 489	-	<b>238 074</b>	148 786	89 288
2012	<b>153 552</b>	111 564	41 988	1 337	1 337	-	2 413	2 413	-	<b>268 079</b>	174 418	93 661
2013	<b>161 306</b>	120 095	41 211	1 372	1 372	-	2 313	2 313	-	<b>274 829</b>	183 307	91 522
2014	<b>168 512</b>	126 537	41 975	1 243	1 243	-	2 281	2 281	-	<b>285 059</b>	191 653	93 406
2015	<b>183 011</b>	137 311	45 700	3 671	1 332	2 339	3 859	2 499	1 360	<b>304 421</b>	204 775	99 646

TurkStat, Road Traffic Accident Statistics, 2015

(1) Includes the deaths within 30 days after the traffic accidents due to related accident and its impacts for people who were injured and sent to health facilities.

- Denotes magnitude null.



# Road Safety Statistics



## Number of victims of traffic accidents involving death or injury, 2015

Victims	Total	Men	Women
<b>Total</b>			
Number of persons killed	7 530	5 750	1 780
<b>At accident scene</b>	3 831	2 944	887
<b>Accident follow-up<sup>(1)</sup></b>	3 699	2 806	893
Number of persons injured	304 421	212 340	92 081
<b>Driver</b>			
Number of persons killed	3 065	3 003	62
<b>At accident scene</b>	1 658	1 628	30
<b>Accident follow-up<sup>(1)</sup></b>	1 407	1 375	32
Number of persons injured	128 036	119 963	8 073
<b>Passenger</b>			
Number of persons killed	2 655	1 534	1 121
<b>At accident scene</b>	1 561	892	669
<b>Accident follow-up<sup>(1)</sup></b>	1 094	642	452
Number of persons injured	141 665	72 919	68 746
<b>Pedestrian</b>			
Number of persons killed	1 810	1 213	597
<b>At accident scene</b>	612	424	188
<b>Accident follow-up<sup>(1)</sup></b>	1 198	789	409
Number of persons injured	34 720	19 458	15 262

TurkStat, Road Traffic Accident Statistics, 2015

(1) Includes the deaths within 30 days after the traffic accidents due to related accident and its impacts for people who were injured and sent to health facilities.

**40.7% of the people killed in traffic accidents were drivers**



# Road Safety Statistics



## Number of faults causing traffic accidents involving death or injury, 2009 - 2015

Year	Total		Driver		Passenger		Pedestrian		Road		Vehicle	
	faults	(%)	faults	(%)	faults	(%)	faults	(%)	faults	(%)	faults	(%)
2009	<b>155 982</b>	100	139 758	89,6	640	0,4	14 181	9,1	958	0,6	445	0,3
2010	<b>157 970</b>	100	141 728	89,7	564	0,4	14 171	9,0	992	0,6	515	0,3
2011	<b>174 605</b>	100	157 494	90,2	677	0,4	14 860	8,5	1 044	0,6	530	0,3
2012	<b>181 266</b>	100	161 076	88,9	797	0,4	17 672	9,7	1 124	0,6	597	0,3
2013	<b>183 030</b>	100	162 327	88,7	774	0,4	16 458	9,0	1 913	1,0	1 558	0,9
2014	<b>193 215</b>	100	171 236	88,6	901	0,5	18 115	9,4	1 841	1,0	1 122	0,6
2015	<b>210 498</b>	100	187 980	89,3	915	0,4	18 522	8,8	1 916	0,9	1 165	0,6

TurkStat, Road Traffic Accident Statistics, 2015

Figures in table may not add up to totals due to rounding.

**Driver faults were the primary fault causing traffic accidents with 89.3% share**



# Road Safety Statistics



**Number of vehicles registered to traffic, vehicles involved in accidents with death or injury, drivers killed and injured by vehicle type, 2015**

Vehicle type	Number of vehicles registered to traffic	Number of vehicles involved in accidents with death or injury	Number of drivers killed			Number of drivers injured
			Total	At accident scene	Accident follow-up <sup>(1)</sup>	
<b>Total</b>	<b>19 994 472</b>	<b>290 072</b>	<b>3 065</b>	<b>1 658</b>	<b>1 407</b>	<b>128 036</b>
Car	10 589 337	149 449	1 214	732	482	55 735
Minibus	449 213	9 140	40	19	21	1 745
Bus	217 056	6 843	23	14	9	716
Small truck	3 255 299	45 452	273	161	112	14 873
Truck	589 426	8 596	121	84	37	2 504
Tractor trailer	214 893	6 684	76	64	12	2 111
Motorcycle	2 938 364	46 310	880	328	552	39 368
Tractor	1 695 152	3 194	226	175	51	1 300
Other	45 732	14 404	212	81	131	9 684

TurkStat, Road Traffic Accident Statistics, 2015

(1) Includes the deaths within 30 days after the traffic accidents due to related accident and its impacts for people who were injured and sent to health facilities.

**290 thousand 72 vehicles were involved in accidents with death or injury**





# Traffic Accident Analysis

## Traffic Accident Analysis

GD of Highways is conducted detailed accident analysis;

- to determine the accident date and place,
- to determine circumstances and causes of the accident,
- to examine details of the damage caused to humans,
- to understand the factors that cause traffic accident,
- to identify risk factors and black spot,
- to show the scope of the problems related to road safety,
- to determine the objectives and strategies for future,
- monitoring the result of the measures taken and evaluating their performances
- ...

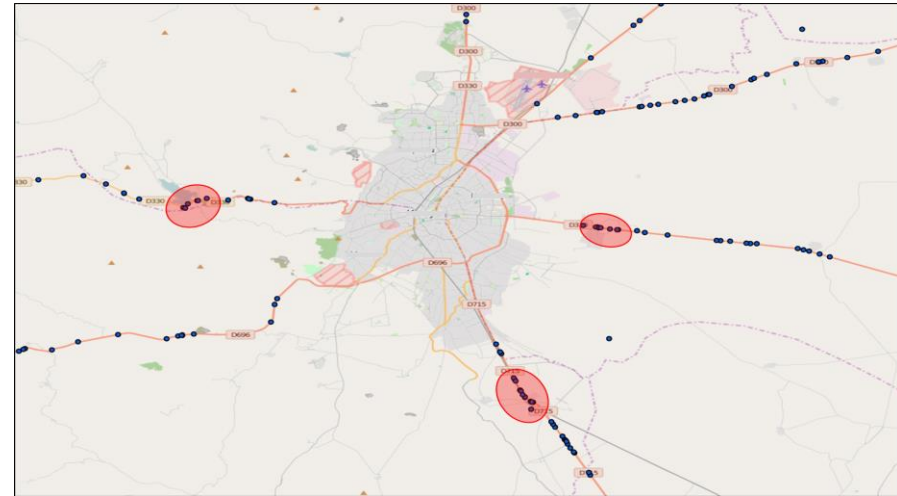
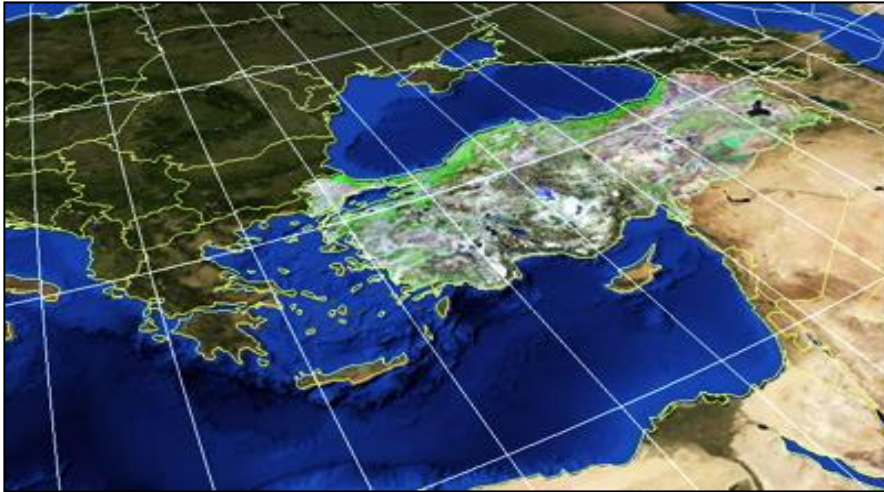




# Road Safety Statistics



## Geographical Information System (GIS)- Based Analysis of Road Traffic Accident





# Road Safety Statistics



Analysis of traffic accidents involving death and personel injury on junctions





# Intelligent Transportation Systems (ITS)



## Applications

VIDEO MONITORING SYSTEMS



METEOROLOGICAL INFORMATION SYSTEMS



SIGNALIZATION SYSTEMS



INCIDENT DETECTION SYSTEMS



VARIABLE MESSAGE SIGNS



ELECTRONIC TOLL COLLECTION SYSTEMS



MOBILE APPLICATIONS



TUNNEL CONTROL SYSTEMS



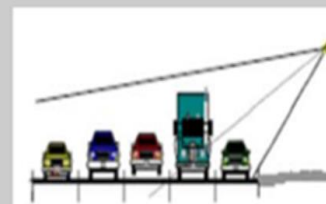
TRAFFIC MANAGEMENT SYSTEMS CENTER



RADIO BROADCASTING SYSTEMS



VEHICLE DETECTORS



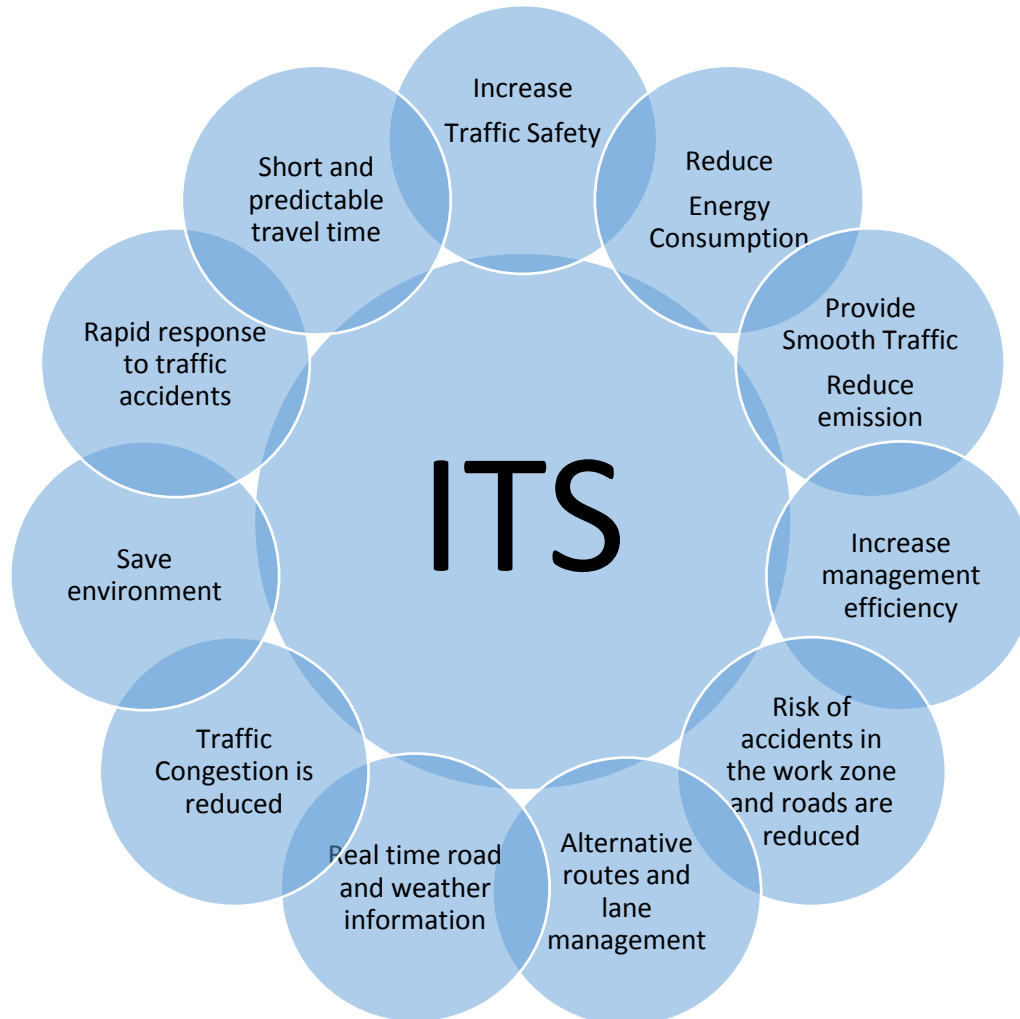




# Intelligent Transportation Systems (ITS)



## Main Benefits of ITS

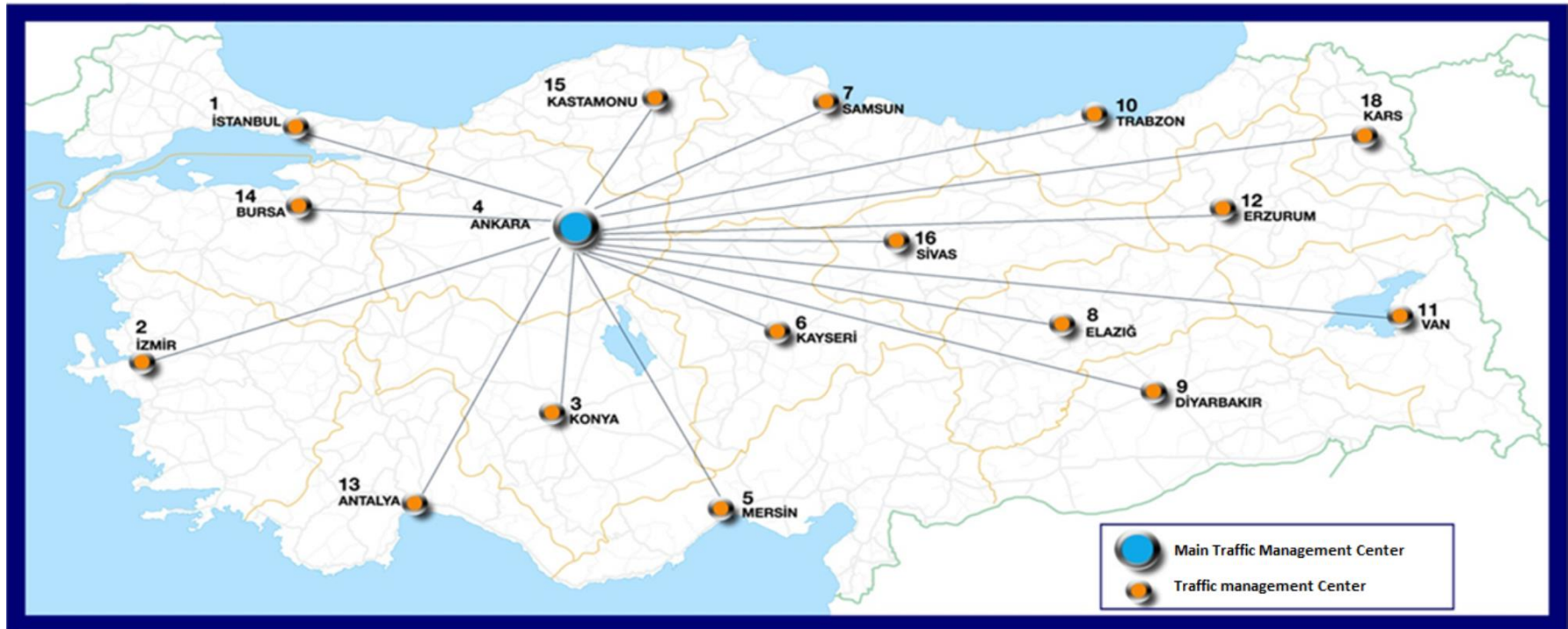




# Intelligent Transportation Systems (ITS)



- ✓ Intelligent transport systems will be built on the main arterial roads and expanded.
- **STRUCTURE OF TRAFFIC MANAGEMENT SYSTEMS CENTRES;**
  - **A TRAFFIC MANAGEMENT SYSTEMS CENTRE FOR EACH HIGHWAYS DIVISION (17 UNITS)**
  - **A MAIN TRAFFIC MANAGEMENT SYSTEMS CENTRE IN ANKARA (1 UNIT)**
  - **INTEGRATED SYSTEM**





# Thank You

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**Division of Transport Survey**

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