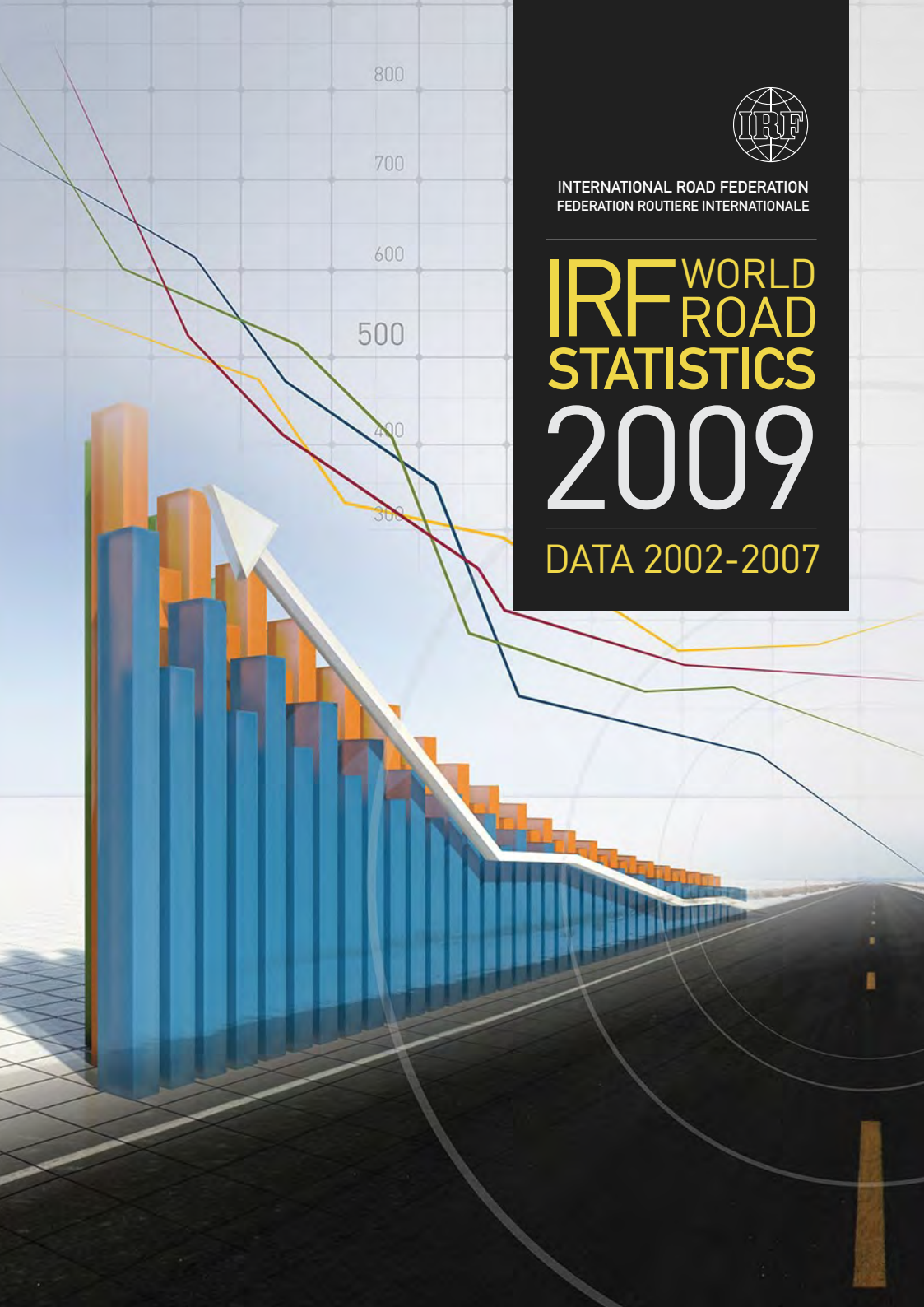




INTERNATIONAL ROAD FEDERATION  
FEDERATION ROUTIERE INTERNATIONALE

# IRF<sup>WORLD</sup> ROAD STATISTICS 2009

DATA 2002-2007



This Booklet is an excerpt of the IRF World Road Statistics 2009. It gives data, graphs and illustrations from selected countries. You can order the full version of the IRF World Road Statistics 2009 in CD-Rom form at [www.irfnet.org](http://www.irfnet.org).

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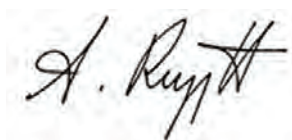
## Foreword

IRF has been producing high quality and extensive road statistics for over 45 years. Roads are one of the most vital infrastructure elements of any economy. World Road Statistics has been a useful tool for road authorities around the world in assessing their road infrastructure.

From this year, for ecological reasons, the well-known very detailed paper copy of the World Road Statistics will no longer be published. Instead, a CD-ROM accompanied by a booklet will be produced. The booklet gives selected key figures, maps, charts and graphs. The CD-ROM includes detailed statistical reports and tables in Portable Document Format (PDF) and Microsoft Excel format.”.

IRF has put together, once again, a high quality publication which, as in the past, is the number one statistical reference for governments, companies and associations alike; helping with investment evaluations, infrastructure planning and sustainable development analyses, and a wide variety of other subjects closely related to road development. Having gained the recognition of major players such as the World Bank, United Nations agencies, African and Asian Development Banks, the World Resources Institute, the International Energy Agency, OPEC - and of course consultancies, professional bodies and governments, IRF World Road Statistics continues to fulfill all stakeholders' expectations.

I would like to take this opportunity to thank our national partners for their collaboration and our staff for their innovation and diligence in gathering, verifying, comparing and presenting a unique collection of data.

A handwritten signature in black ink, appearing to read 'S. Rupprecht', is positioned above the printed name.

**Sibylle Rupprecht**

Director General

IRF Geneva Programme Centre



## Acknowledgements and Sources

We would like to gratefully acknowledge the role of all national statistics offices, road administrations, associations and Ministries of Public Works in making the annual IRF's "World Road Statistics" (WRS) publication possible.

The support of key collaborators and data providers worldwide has led IRF to extend the country coverage of road and transport statistics and to provide data of high quality.

We have compiled data from different sources at international and inter-governmental levels in order to produce this year's edition. Herewith is a non-extensive shortlist:

- United Nations Economic Commission for Europe
- United Nations Economic Commission for Africa
- World Bank
- International Monetary Fund
- International Energy Agency
- African Development Bank
- Asian Development Bank
- OECD: Organization for Economic Co-operation and Development
- Central Intelligence Agency, USA
- Eurostat
- ECMT: European Conference of Ministers of Transport
- GTZ: German Technical Cooperation
- OICA: International Organization of Motor Vehicles Manufacturers
- WHO: World Health Organization



## Part 1 : KEY INDICATORS for SELECTED COUNTRIES

<b>Egypt, Arab Rep.</b>		1	Population 2007	GNI per capita 2007 Current US \$	GDP Growth 2007 Annual %	Total road Network Km
			75,466,539	1,580	7.07	99,672
Road density Km/Km2	0.09	Passenger cars / 1'000 pop.	31	Road accidents		
Paved roads %	81.0	Motor vehicles / 1'000 pop.	42	Road fatalities		12,295
% motorways		Motor vehicles / Km of road	32	Fatal. /100'000 pop.		16.29
2 Road sector energy consumption, ktoe	11,076	Total, ktoe	67,246	% Road / Total		16.47
<b>Germany</b>		1	Population 2007	GNI per capita 2007 Current US \$	GDP Growth 2007 Annual %	Total road Network Km
			82,268,357	38,990	2.48	644,471
Road density Km/Km2	1.85	Passenger cars / 1'000 pop.	566	Road accidents		335,845
Paved roads %		Motor vehicles / 1'000 pop.	623	Road fatalities		4,949
% motorways	1.92	Motor vehicles / Km of road	80	Fatal. /100'000 pop.		6.02
2 Road sector energy consumption, ktoe	51,278	Total, ktoe	331,257	% Road / Total		15.48
<b>India</b>		1	Population 2007	GNI per capita 2007 Current US \$	GDP Growth 2007 Annual %	Total road Network Km
			1,124,786,997	950	9.06	3,316,452
Road density Km/Km2	1.01	Passenger cars / 1'000 pop.	10	Road accidents		479,219
Paved roads %		Motor vehicles / 1'000 pop.	15	Road fatalities		114,444
% motorways		Motor vehicles / Km of road	5	Fatal. /100'000 pop.		10.17
2 Road sector energy consumption, ktoe	37,004	Total, ktoe	594,913	% Road / Total		6.22
<b>Mexico</b>		1	Population 2007	GNI per capita 2007 Current US \$	GDP Growth 2007 Annual %	Total road Network Km
			105,280,515	9,400	3.20	360,075
Road density Km/Km2	0.18	Passenger cars / 1'000 pop.	167	Road accidents		30,551
Paved roads %	38.2	Motor vehicles / 1'000 pop.	244	Road fatalities		5,398
% motorways	1.82	Motor vehicles / Km of road	71	Fatal. /100'000 pop.		5.13
2 Road sector energy consumption, ktoe	47,952	Total, ktoe	184,262	% Road / Total		26.02
<b>Morocco</b>		1	Population 2007	GNI per capita 2007 Current US \$	GDP Growth 2007 Annual %	Total road Network Km
			30,860,595	2,290	2.72	57,799
Road density Km/Km2	0.13	Passenger cars / 1'000 pop.	53	Road accidents		58,924
Paved roads %	62.0	Motor vehicles / 1'000 pop.	71	Road fatalities		3,838
% motorways	1.41	Motor vehicles / Km of road	38	Fatal. /100'000 pop.		12.44
2 Road sector energy consumption, ktoe	3,233	Total, ktoe	14,361	% Road / Total		22.51

(1) : Data are for 2007 or most recent year available.

(2) : Data are for 2007.



IRF WORLD ROAD STATISTICS 2009

PART-2  
**ROAD NETWORK**

**1. Total Road Network:** Kilometer length of the road network. The road network includes "all roads in a given area".

**2. Motorways:** Kilometer length of roads, specifically designed and built for motor traffic, which does not serve properties bordering on it, and which:

- (a) is provided, except at special points or temporarily, with separate carriageways for the two directions of traffic, separated from each other, either by a dividing strip not intended for traffic, or exceptionally by other means;
- (b) does not cross at level with any road, railway or tramway track, or footpath;
- (c) is especially sign-posted as a motorway and is reserved for specific categories of road motor vehicles.

Entry and exit lanes of motorways are included irrespectively of the location of the signposts. Urban motorways are also included.

**3. Highways, main or national roads:** Kilometer length of A level roads. "A-level roads" are roads outside urban areas and other roads outside urban areas. A-level roads are roads outside urban areas that are not motorways but belong to the top-level road network. (...) A-level roads are characterized by a comparatively high quality standard, either non-divided roads with oncoming traffic or similar to motorways. In most countries, these roads are financed by the federal or national government"

**4. Secondary or regional roads:** Kilometer length of roads that are the main feeder routes into, and provide the main links between highways, main or national roads.

**5. Other roads - Urban:** Length of roads within the boundaries of a built-up area, which is an area with entries and exits especially sign-posted as such

**6. Other roads - Rural:** Length of all remaining roads in a country not included in above mentioned categories.

**7. Paved roads:** Length of all roads that are surfaced with crushed stone (macadam) and hydrocarbon binder or bituminized agents, with concrete or with cobblestones.



**Table 2.1 : Total length of road network per category and country (Km)**

Country	Year	Motorways	Highways, main or national roads	Secondary, regional roads	Other roads	Total
Austria	2007	1,677	10,408	23,657	71,520	107,262
Belgium	2006	1,763	12,585	1,349	136,559	<b>152,256</b>
Bulgaria	2005	331	2,961	4,012	32,927	40,231
Croatia	2007	959	7,160	20,919	0	29,038
Cyprus	2007	2,131	257	3,201	6,657	12,246
Czech Republic	2007	657	6,191	48,736	72,927	128,511
Denmark	2007	1,064	2,766	0	68,582	72,412
Estonia	2008	103	3,940	12,444	41,547	58,034
Finland	2007	700	13,264	13,466	51,459	78,889
France	2007	11,010	9,115	381,000	550,000	951,125
Germany	2006	12,594	40,416	178,172	413,289	644,471
Greece	2005	868	9,299	30,864	75,600	116,631
Hungary	2007	1,157	6,745	23,280	164,537	195,719
Iceland	2007	0	4,224	3,999	4,825	13,048
Ireland	2003	200	5,310	11,645	79,447	96,602
Italy	2005	6,700	21,500	147,400	312,100	487,700
Latvia	2007	0	6,969	13,210	49,508	69,687
Lithuania	2007	309	1,440	19,572	59,394	80,715
Luxembourg	2004	147	837	1,891	2,350	5,225
Macedonia, FYR	2007	221	690	3,774	9,155	13,840
Malta	2004	0	185	0	3,096	3,096
Netherlands	2005	2,500	6,700	57,500	59,400	126,100
Norway	2007	271	<b>27,046</b>	27,075	38,528	92,920
Poland	2007	663	<b>17,858</b>	142,812	97,577	258,910
Portugal	2005	2,613	5,883	4,406	63,900	76,802
Romania	2004	228	14,809	36,010	147,770	198,817
Slovak Republic	2006	328	3,359	3,742	36,341	43,770
Slovenia	2007	606	948	4,921	32,233	38,708
Spain	2003	12,100	23,367	139,672	501,100	676,239
Sweden	2007	1,744	15,385	82,932	326,984	427,045
Switzerland	2007	1,765	18,143	51,446	0	71,354
Turkey	2006	1,987	31,333	30,579	363,200	427,099
United Kingdom	2007	3,673	49,009	122,275	245,052	420,009



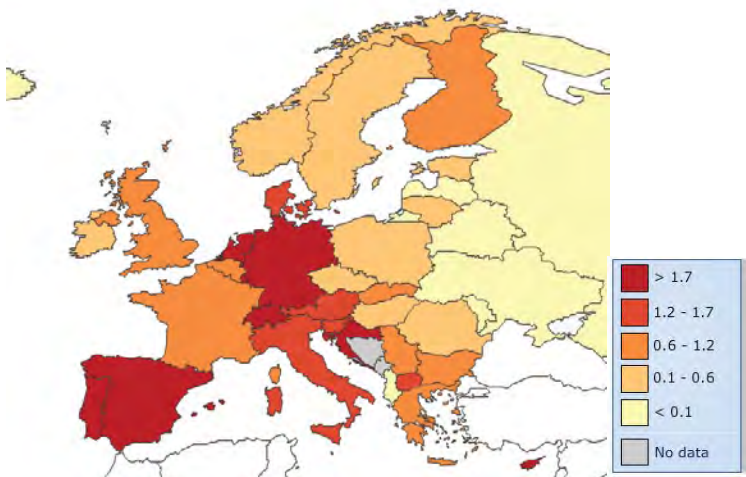
**Table 2.2 : Main characteristics of road networks per country**

Country	Year	Total network (Km)	% Paved	Density of roads (Km/Km2)	% Motorways
Austria	2007	107,262	100.00	1.28	1.56
Belgium	2006	153,070	78.21	4.99	1.16
Bulgaria	2005	40,231	98.40	0.37	0.82
Croatia	2007	29,038	89.13	0.51	3.30
Cyprus	2007	12,246	64.04	1.32	2.22
Czech Republic	2007	128,511		1.63	0.51
Denmark	2007	72,412	100.00	1.68	1.47
Estonia	2008	58,034	28.77	1.28	0.18
Finland	2007	78,889	65.36	0.23	0.89
France	2007	951,125	100.00	1.72	1.16
Germany	2006	644,471		1.81	1.95
Greece	2005	116,631		0.88	0.74
Hungary	2007	195,719	37.72	2.10	0.59
Iceland	2007	13,048	36.64	0.13	0.00
Ireland	2003	96,602	100.00	1.32	0.20
Italy	2005	487,700		1.62	1.35
Latvia	2007	69,687	100.00	1.08	0.00
Lithuania	2007	80,715	28.61	1.24	0.38
Luxembourg	2004	5,225	100.00	2.02	2.81
Macedonia, FYR	2007	13,840		0.54	1.60
Malta	2004	3,096	87.53	9.68	0.00
Netherlands	2005	126,100		3.72	1.98
Norway	2007	92,920	79.59	0.29	0.29
Poland	2007	258,910	90.27	0.83	0.26
Portugal	2005	76,802		0.83	3.40
Romania	2004	198,817	30.20	0.83	0.11
Slovak Republic	2006	43,770	87.03	0.89	0.75
Slovenia	2007	38,708	100.00	1.91	1.57
Spain	2003	676,239	99.00	1.34	1.80
Sweden	2007	427,045	31.66	0.95	0.41
Switzerland	2007	71,354	100.00	1.73	2.47
Turkey	2006	427,099		0.55	0.47
United Kingdom	2007	420,009	100.00	1.72	0.87

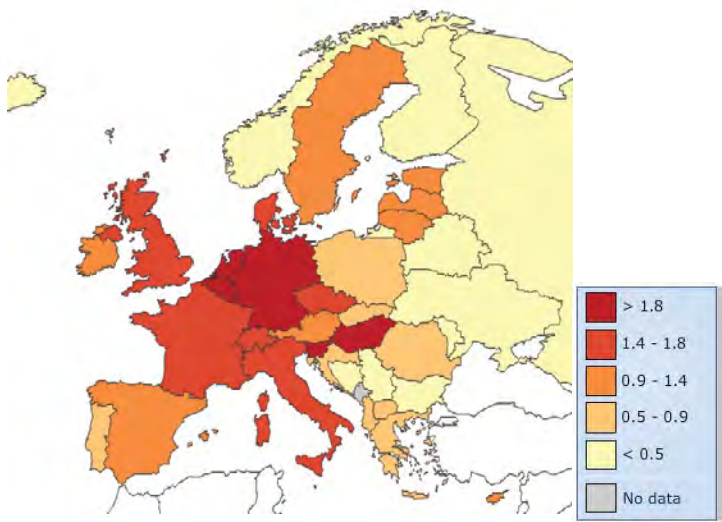


Graphs: Road Infrastructure Indicators.

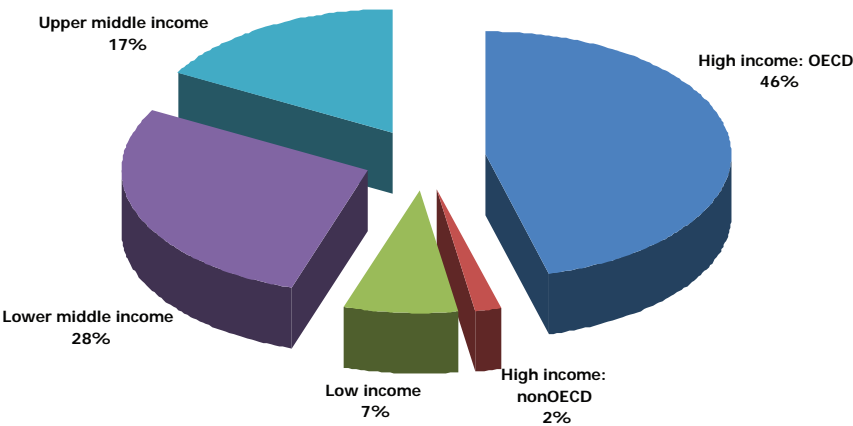
Europe: Proportion of motorways (%)



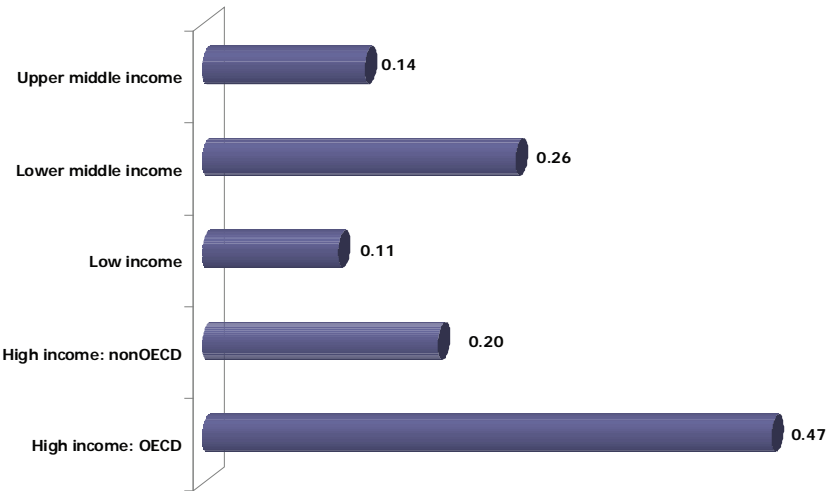
Europe: Road networks density (km / km2 land area)



Total Road Network Distribution / Income Groups (%)



Road Density (Km / sq. Km) / Income Groups







IRF WORLD ROAD STATISTICS 2009

PART-3

# ROAD TRAFFIC

- 1. Road traffic:** Any movement of a road vehicle on a given network.
- 2. Traffic volume:** Weighted average daily flow of each vehicle type on each category of the road network, as determined from regular national stratified, classified traffic counts.
- 3. Estimated traffic volume:** If counts are not available, traffic volume is estimated by dividing the annual consumption of motor vehicle fuel (in liters) used in the country by the number of vehicles in each category. The result is then multiplied by the average number of km/litre for that category.
- 4. Vehicle-kilometre:** Unit of measurement representing the movement of a road motor vehicle over one kilometre.



**Table 3.1 : Annual traffic volume per vehicle category and country (Mio Veh-Km)**

Country	Year	Passenger cars	Buses and Motocoaches	Vans and Lorries	Total	Motorcycles and Mopeds
Armenia	2007	192.40	210.20	117.90	520.50	
Ecuador	2007	11'299.00	983.00	13'256.00	25'538.00	
Finland	2007	45'560.00	580.00	7'110.00	53'250.00	
France	2007	419'000.00	2'500.00	130'000.00	551'500.00	6'000.00
Israel	2007	30'490.00	1'370.00	12'375.00	44'235.00	761.00
Japan	2006	514'109.00	6'655.00	241'849.00	762'613.00	
Korea, Republic of	2007	235'401.00	24'037.00	74'594.00	334'032.00	
Kyrgyzstan	2007	1'982.00	457.50	356.60	2'796.10	15.00
Latvia	2007	4'830.50	79.80	1'508.10	6'418.40	
Mexico	2007	90'650.00	6'392.00	20'108.00	117'150.00	
Singapore	2007	10'335.00	560.00	4'375.00	15'630.00	1'983.00
South Africa	2007	75'573.00	9'007.00	47'278.00	131'858.00	1'911.00
Turkey	2007	47'124.00	3'499.00	18'986.00	69'609.00	
Ukraine	2007	5'302.90	2'457.90	7'299.80	15'060.60	
United Kingdom	2007	421'813.22	5'593.12	100'000.27	527'406.61	5'588.00

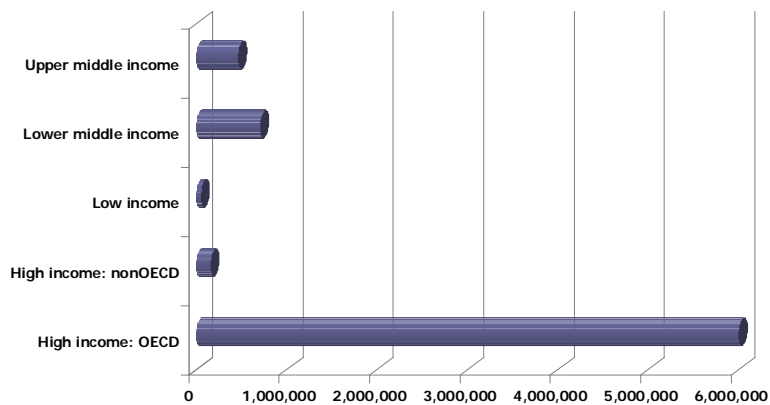


**Table 3.2 : Passenger cars traffic volume per country (Mio Veh-Km) - 2002/2007**

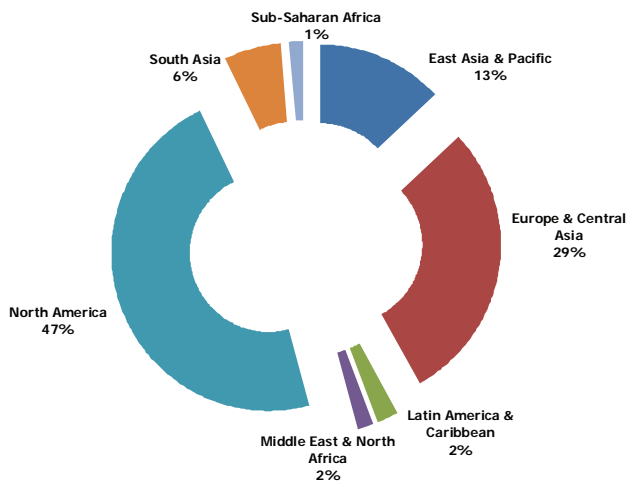
Country	2002	2003	2004	2005	2006	2007
Armenia	67.00	82.00	106.00	144.00	264.00	192.40
Ecuador	11'827.00	13'708.00		10'542.00	11'557.00	11'299.00
Finland	41'676.00	42'566.00	28'480.00	44'192.00	44'610.00	45'560.00
France	422'000.00	425'000.00	425'000.00	420'000.00	417'000.00	419'000.00
Israel	25'542.00	26'143.00	26'500.00	28'179.00	28'857.00	30'490.00
Japan	529'208.00	529'717.00	526'319.00	520'137.00	514'109.00	
Korea, Republic of		79'459.00	309'652.00	214'347.00	221'577.00	235'401.00
Kyrgyzstan	1'936.00		1'677.00		1'848.20	1'982.00
Latvia	6'268.00	6'809.00	7'486.00	7'979.00	9'504.80	4'830.50
Mexico		67'825.00	70'746.00	71'334.00	86'450.00	90'650.00
Singapore	10'804.00	8'165.00	8'347.00	8'860.00	9'645.00	10'335.00
South Africa			71'526.00	72'797.00	73'447.00	75'573.00
Turkey	33'204.00	33'802.00	38'403.00	40'490.00	43'188.00	47'124.00
Ukraine	3'784.00		4'697.00	4'788.00	4'995.00	5'302.90
United Kingdom	392'926.00	393'049.00	398'056.00	397'191.00	419'725.97	421'813.22

Graphs: Road Traffic indicators

Annual traffic volume for passenger cars per income groups (Mio Veh-Km)



Annual traffic volume for passenger cars per regions (Mio Veh-Km) (%)







IRF WORLD ROAD STATISTICS 2009

PART-4

# MULTIMODAL TRAFFIC COMPARISONS

**1. Inland waterways:** Inland waterways are defined as stretches of water, not part of the sea, over which vessels of a carrying capacity of not less than 50 tonnes can navigate. This term covers navigable rivers, lakes and canals. Figures for coastal sea traffic are given as a footnote.

**2. Tonne – km: Unit** of measure representing the movement over a distance of one kilometre of one tonne of goods.

**3. Passenger-km:** Unit of measure representing the transport of one passenger over a distance of one kilometre. The distance to be taken into consideration should be the distance actually travelled by the passenger and only on the national network.



**Table 4.1 : Inland surface freight transport / mode (Mio T-Km)**

Country	Year	Road	Waterways	Rail	Total
Australia	2007	182,500.000	125,900.000	198,700.000	507,100.000
Belarus	2007	19,200.000	93.000	47,933.000	67,292.000
China	2007	1,135,470.000	1,559,880.000	2,379,700.000	5,075,050.000
Ecuador	2007	1,193.143	0.000	0.000	1,193.143
Finland	2007	26,900.000	3,100.000	10,400.000	40,400.000
Germany	2007	466,200.000	64,717.000	114,615.000	645,532.000
Kyrgyzstan	2007	902.500	4.800	848.900	1,756.200
Lithuania	2007	20,278.000	10.000	14,373.000	34,661.000
Mexico	2007	222,391.000	0.000	30,017.000	252,408.000
Morocco	2007	697.000	0.000	5,835.000	6,532.000
Poland	2007	159,527.000	1,338.000	54,253.000	215,118.000
Russian Federation	2007	206,000.000	86,000.000	2,090,000.000	2,382,000.000
Switzerland	2007	16,900.000	118.000	12,300.000	29,318.000

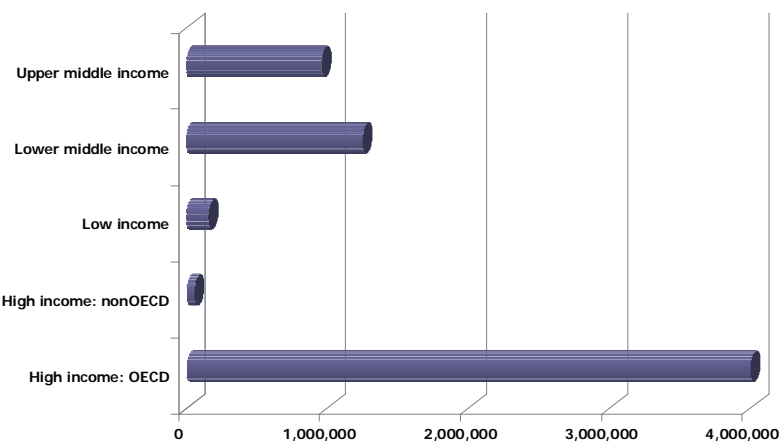


**Table 4.2 : Road freight transport (Mio T-Km) - 2002/2007**

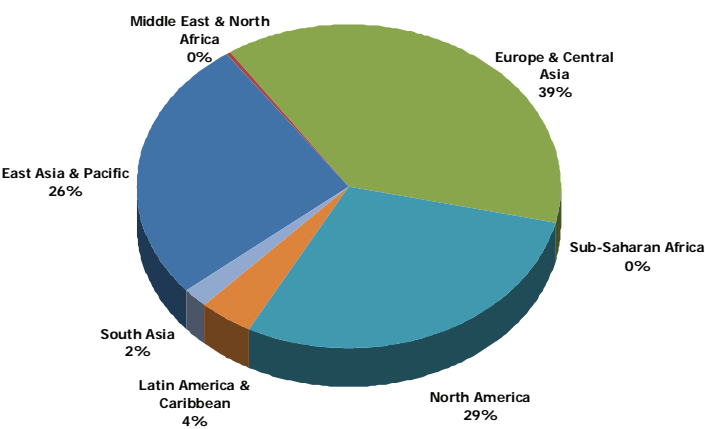
Country	2002	2003	2004	2005	2006	2007
Australia		152,777.000	162,300.000	168,630.000	173,000.000	182,500.000
Belarus	11,400.000	12,710.000	13,969.000	15,045.000	15,779.000	19,200.000
China	678,250.000	709,950.000	784,090.000	869,320.000	975,420.000	1,135,470.000
Ecuador	4,901.000	5,170.000	5,453.000	1,026.156	1,106.504	1,193.143
Finland	29,000.000	27,800.000	28,100.000	27,800.000	26,400.000	26,900.000
Germany	225,467.000	227,197.000	232,296.000	237,609.000	461,900.000	466,200.000
Kyrgyzstan	875.100	797.200	847.400	1,335.600	819.000	902.500
Lithuania	10,708.700	11,462.200	12,279.000	15,908.000	18,134.000	20,278.000
Mexico	192,900.000	195,200.000	199,800.000	204,217.000	209,392.000	222,391.000
Morocco		1,211.000	1,251.000	1,256.000	1,212.000	697.000
Poland	74,679.000	85,989.000	110,481.000	119,740.000	136,490.000	159,527.000
Russian Federation	23,200.000	25,200.000		194,000.000	199,000.000	206,000.000
Switzerland	24,500.000	14,582.000	15,000.000	15,753.000	16,337.000	16,900.000

Graphs: Multimodal Traffic indicators

Road freight transportation (Mio T-KM) per income groups

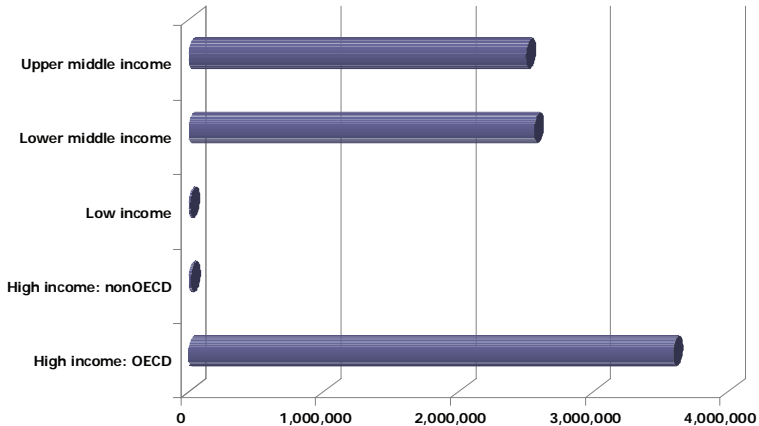


Road freight transportation (Mio T-Km) per regions (%)

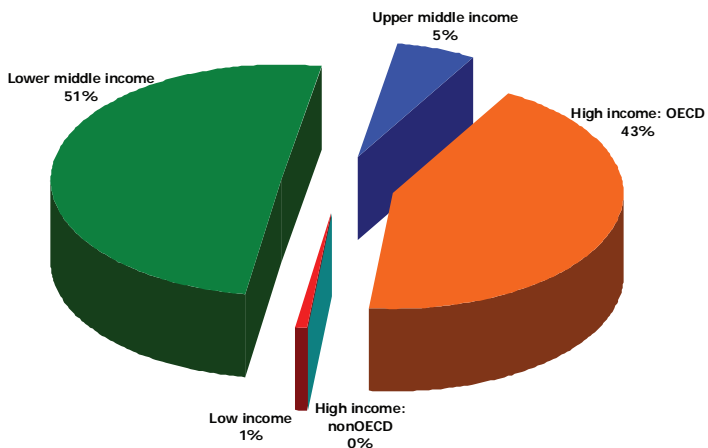




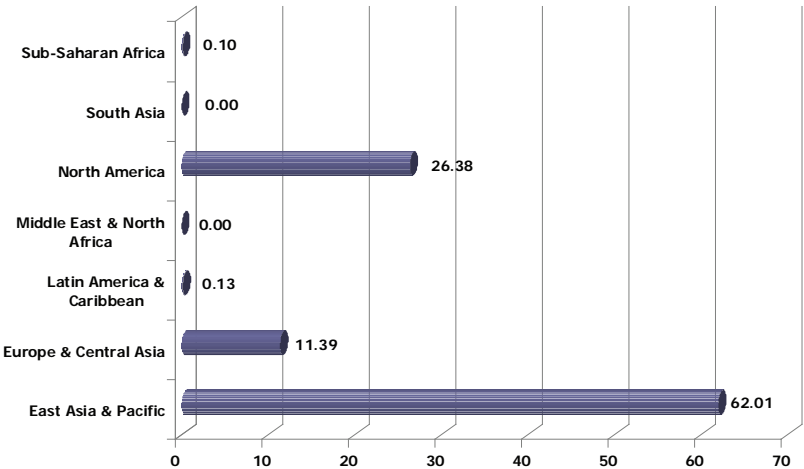
Rail freight transportation (Mio T-KM) per income groups



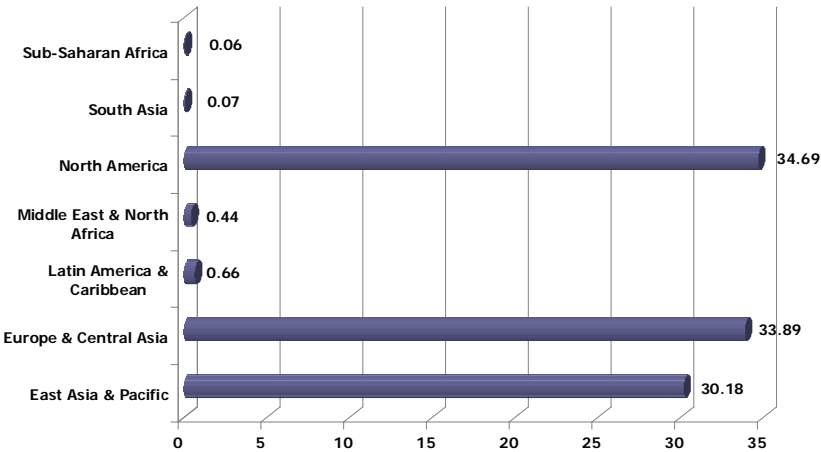
Waterways freight transportation (Mio T-KM) per income groups (%)



Waterways freight transportation (Mio T-KM) per regions (%)



Rail freight transportation (Mio T-KM) per regions (%)



An aerial photograph of a busy city intersection. The scene is filled with various vehicles including cars, taxis, a truck, a van, and a utility vehicle. Pedestrians are crossing the street at the intersection. The image is used as a background for the title page of a report.

IRF WORLD ROAD STATISTICS 2009

PART-5  
VEHICLES IN USE

**1. Passenger cars:** Road motor vehicle, other than a motor cycle, intended for the carriage of passengers and designed to seat no more than nine persons (including the driver). The term "passenger car" therefore covers microbars (need no permit to be driven), taxis and hired passenger cars, provided that they have fewer than ten seats.

**2. Buses and motor coaches:** Passenger road motor vehicle designed to seat more than nine persons (incl. driver). Statistics also include mini-buses designed to seat more than 9 persons (incl. the driver).

**3. Lorries and Vans:** Rigid road motor vehicle designed, exclusively or primarily, to carry goods. This category includes vans which are rigid road motor vehicles designed exclusively or primarily to carry goods with a gross vehicle weight of less than 3,500 kg. This category also includes pick-ups.

**4. Road Tractors (semi-trailers):** Road motor vehicle designed, exclusively or primarily, to haul other road vehicles which are not power-driven (mainly semi-trailers). Agricultural tractors are excluded.

**5. Motorcycles & mopeds:** Two- or three-wheeled road motor vehicles with or without side-car, including motor scooter with a category. Maximum of 400 kg (900 lbs) unladen weight.



**Table 5.1 : Vehicles in use per category and per country  
(n)**

Country	Year	Passenger cars	Buses and Motorcoaches	Vans and Lorries	Total	Motorcycles and mopeds
Bangladesh	2007	158,109	31,622	168,649	358,379	653,515
Barbados	2007	103,535	631	15,151	119,317	2,525
Benin	2007	149,310	1,114	35,656	186,080	15,600
Bhutan	2007	19,637	179	5,355	25,171	7,498
Bolivia	2007	174,912	6,996	468,763	650,671	34,982
Brazil	2007	30,282,855	1,985,761	5,709,063	37,977,679	10,921,686
Chile	2007	1,701,036	170,217	849,282	2,720,535	63,257
China	2007	29,616,499	2,343,444	10,540,556	42,500,499	87,217,276
Hungary	2007	3,012,165	17,899	829,817	3,859,881	135,865
Iran	2007	920,136	4,903	179,726	1,104,765	862,626
Japan	2007	41,469,000	231,000	34,324,000	76,024,000	1,479,000
Moldova	2007	338,944	21,095	94,828	454,867	19,068
Pakistan	2007	1,440,072	170,401	187,054	1,797,527	2,684,272
United States	2007	135,932,930	834,436	110,497,239	247,264,605	7,138,476

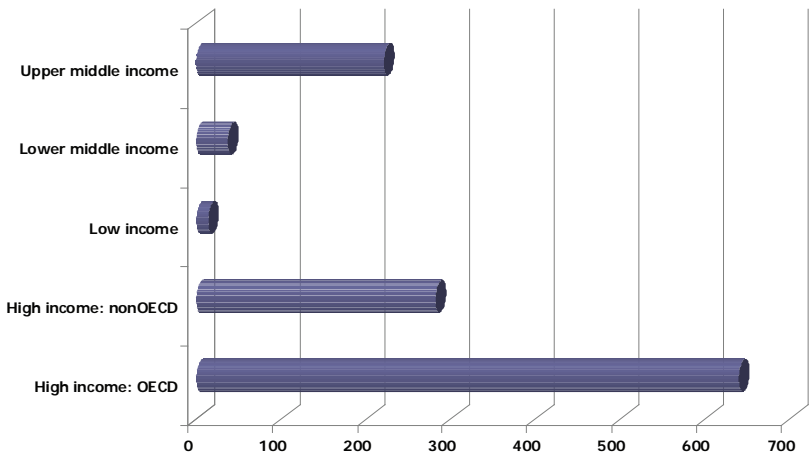


**Table 5.2 : Vehicles fleet ratios per country**

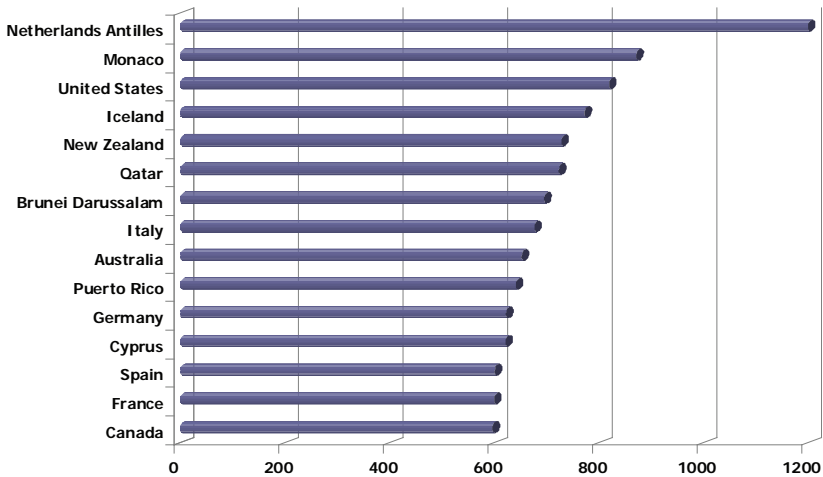
Country	Year	Passenger cars / 1'000 people	Tot. vehicles / 1'000 people	Tot. vehicles / Km of roads
Bangladesh	2007	1	2	1
Barbados	2007	352	406	75
Benin	2007	17	21	10
Bhutan	2007	30	38	3
Bolivia	2007	18	68	10
Brazil	2007	158	198	22
Chile	2007	103	164	34
China	2007	22	32	12
Hungary	2007	300	384	20
Iran	2007	13	16	6
Japan	2007	325	595	64
Moldova	2007	89	120	36
Pakistan	2007	9	11	7
United States	2007	451	820	38

Graphs: Motorization indicators

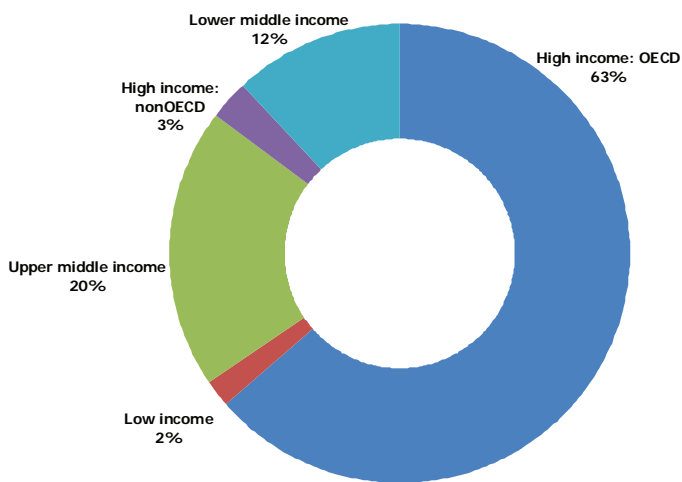
Total Motor Vehicles / 1'000 people per income groups



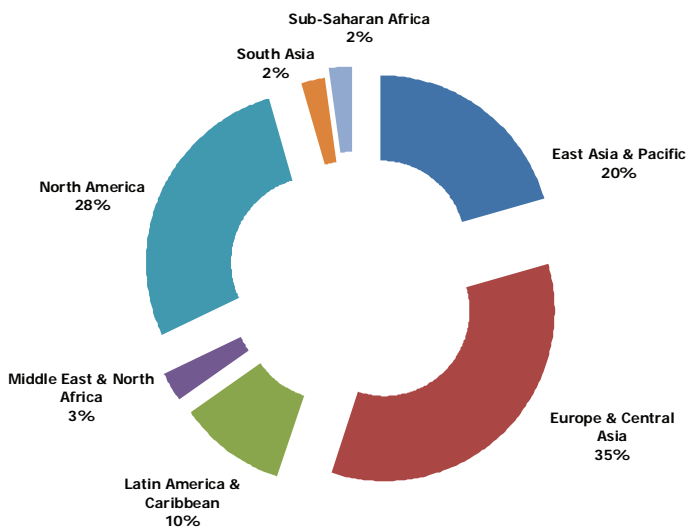
Total Motor Vehicles / 1'000 people – Top 15 countries



Passenger Cars / Income groups (%)



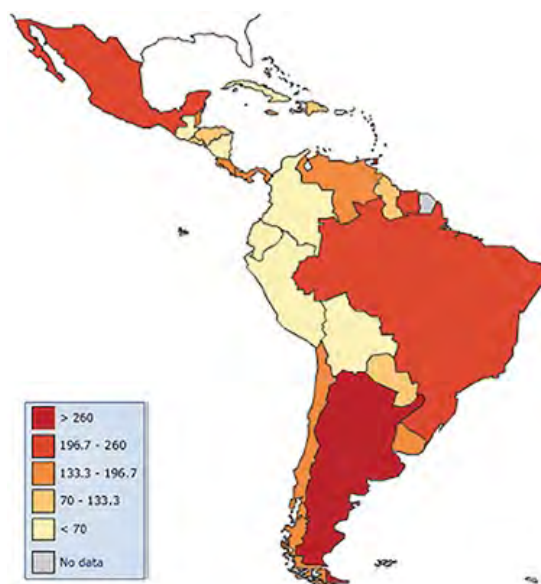
Total motor vehicles / geographic regions (%)



Asia: Passenger cars per 1'000 people



South America: Total motor vehicles / 1'000 people





IRF WORLD ROAD STATISTICS 2009

PART-6  
ROAD ACCIDENTS



**1. Injury accident:** Any accident involving at least one road vehicle in motion on a public road or private road to which the public has right of access, resulting in at least one injured or killed person.

Included are: Collisions between road vehicles, between road vehicles and pedestrians, between road vehicles and animals or fixed obstacles and with one road vehicle alone.

Included are collisions between road and rail vehicles. Multi-vehicle collisions are counted as only one accident provided that any successive collisions happen at very short intervals.

Injury accident excludes accidents incurring only material damage.

**2. Person injured:** Any person not killed, but who sustained an injury as result of an injury accident, normally needing medical treatment.

**3. Person killed:** Any person killed immediately or dying within 30 days as a result of an injury accident.


**Table 6.1 : Road accidents figures and rates per country**

Country	Year	Injury accidents			Persons injured	Persons killed	
		Tot.	R1	R2		Tot.	R3
Armenia	2007	1,943	64.57	373.29	2,720	371	12.33
Costa Rica	2007	69,761	1,563.38	568.25	19,903	339	7.60
Croatia	2007	18,029	406.43	67.41	25,092	619	13.95
India	2007	479,219	42.61		513,340	114,444	10.17
Israel	2007	16,016	223.06	36.21	32,407	398	5.54
Japan	2007	832,454	651.52	109.20	1,034,445	6,639	5.20
Kazakhstan	2007	15,942	102.96	24.56	18,951	4,365	28.19
Lithuania	2007	6,448	191.02	60.92	8,042	740	21.92
Mauritius	2007	2,190	173.71		2,915	140	11.11
Morocco	2007	58,924	190.94		85,426	3,838	12.44
Russian Federation	2007	233,800	164.53		292,200	33,300	23.43
Ukraine	2007	63,554	136.65	421.99	78,528	9,574	20.59

R1 : Injury accidents (n) / 100'000 people

R2 : Injury accidents (n) / 100 Million Veh\_Km Traffic

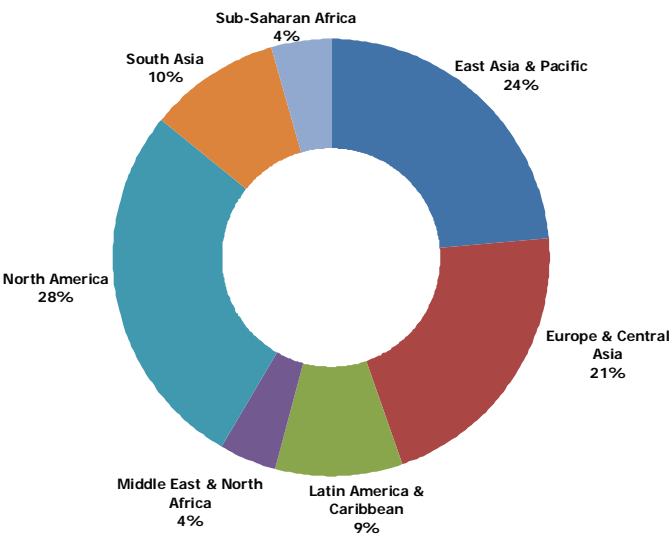
R3 : Persons killed (n) in road accidents/ 100'000 people


**Table 6.2 : Total number of injury accidents, per country (n) - 2002/2007**

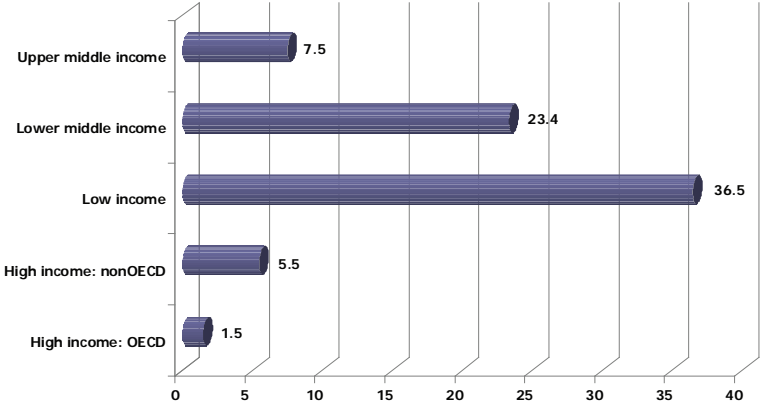
Country	2002	2003	2004	2005	2006	2007
Armenia	1,002		1,164	1,312	1,574	1,943
Costa Rica	56,699	53,668	52,362	57,129	68,607	69,761
Croatia	17,071	18,592	17,140	15,679	16,706	18,029
India	407,497	406,726	429,910	439,200	460,920	479,219
Israel	18,490	17,745	17,762	16,987	17,193	16,016
Japan	936,721	947,993	952,191	933,828	886,864	832,454
Kazakhstan		19,705	21,930	14,517	16,038	15,942
Lithuania	6,091	5,965	6,357	6,777	6,589	6,448
Mauritius	18,022	19,178	19,495	2,144	1,947	2,190
Morocco	52,137	53,814	51,687	51,559	54,492	58,924
Russian Federation			208,558	223,300	229,100	233,800
Ukraine	34,488	42,409	45,593	46,485	49,491	63,554

Graphs: Road Safety Indicators

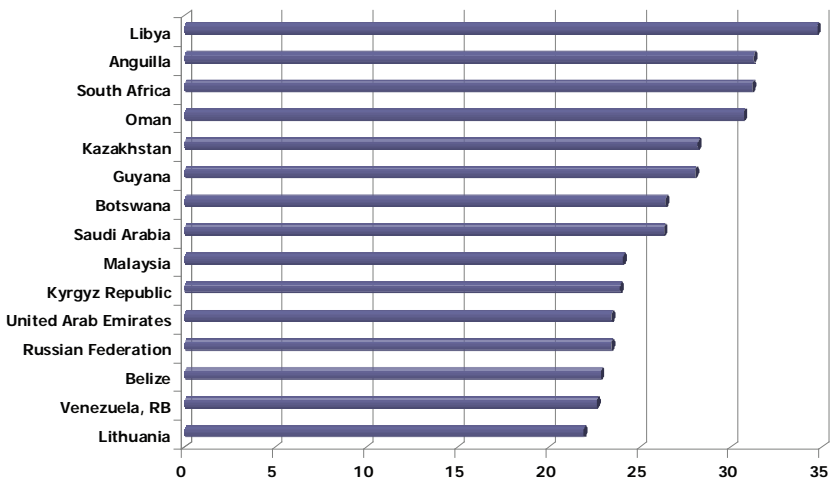
Persons injured in road accidents / geographic regions (%)



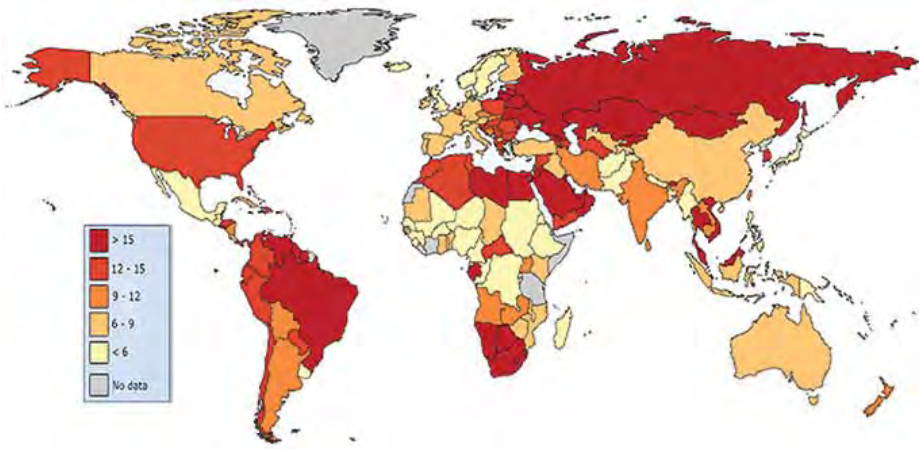
Persons killed / 10'000 registered vehicles per income groups



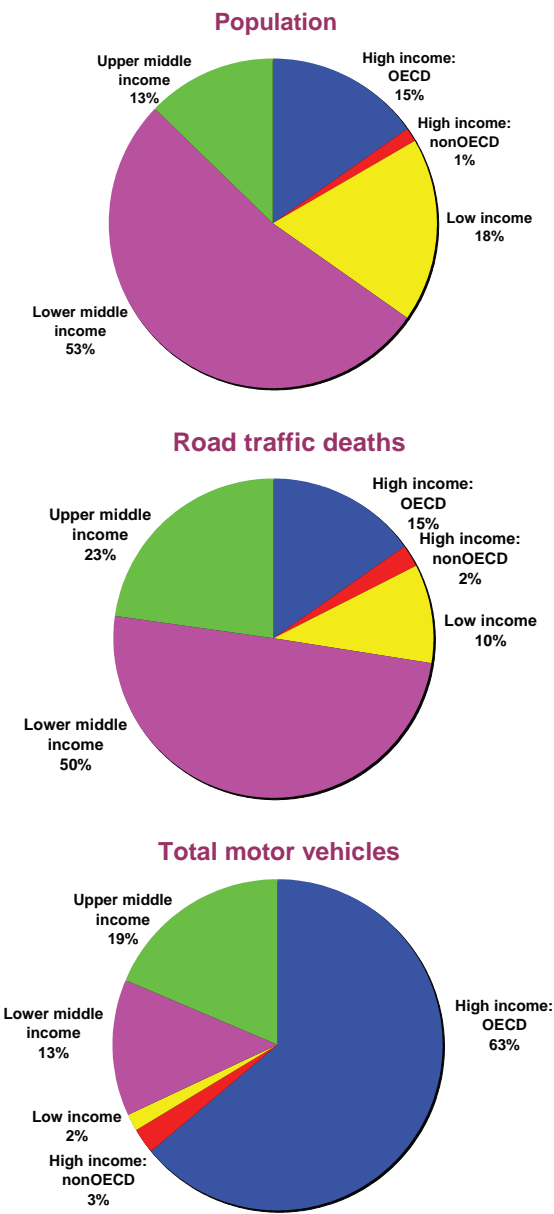
Persons killed in road accidents / 100'000 people – 15 highest rates



World: Road Fatalities / 100'000 people



Comparison by Income  
Group: population, road traffic deaths, and motor vehicles





IRF WORLD ROAD STATISTICS 2009

PART-7  
PRODUCTION,  
IMPORTS, FIRST  
REGISTRATIONS  
& EXPORTS OF  
MOTOR VEHICLES



**Table 7.1 : Production, imports, first registrations and exports of passenger cars, per country (n)**

Country	Year	Production	Imports	First registrations	Exports
Belarus	2007	233	180'399		40
Belgium	2007	789'674		524'795	716'028
Ecuador	2007	31'981	35'886	66'773	10'447
France	2007	2'550'900	994'200	2'065'000	1'480'100
Israel	2007	0	178'602	178'602	0
Korea, Republic of	2007	3'723'482		986'416	2'718'548
Moldova	2007	0	21'725	19'137	1'039
Poland	2007	696'785	5'733'026	1'128'684	7'766'306
Portugal	2007	168'148	235'675	253'279	135'063
South Africa	2007	284'009	206'882	426'265	106'460
Sweden	2007	316'600	334'968	306'968	356'117
Turkey	2007	855'460	281'672	353'495	503'271



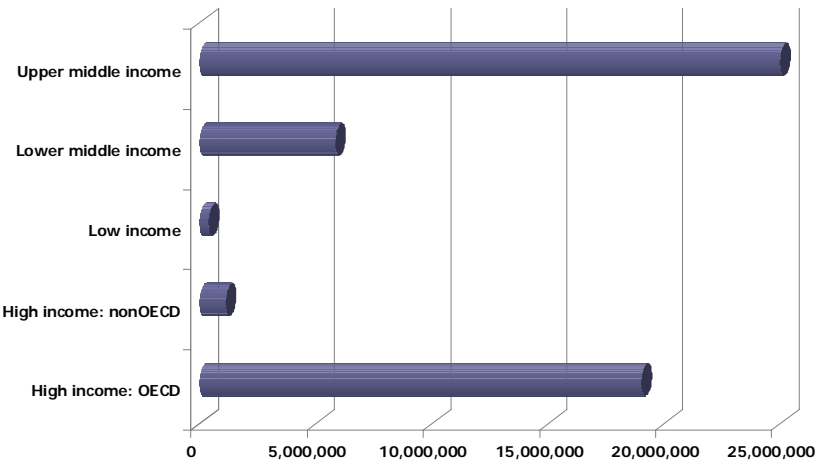
**Table 7.2 : Exports of Passenger cars (n) - 2002/2007**

Country	2002	2003	2004	2005	2006	2007
Armenia			610	786	1'005	1'793
China, Hong Kong		39'525	34'616	33'916	26'717	29'246
China, Macao	160	94	92	282	103	122
Ecuador	5'079	8'574		7'791	9'858	10'447
France	3'469'400	2'024'000	2'057'000	1'955'000	1'636'400	1'480'100
Korea, Republic of	1'413'723	1'720'124	2'276'576	2'456'525	2'530'180	2'718'548
Kyrgyzstan	1'000	747	742	755	1'076	1'499
Malta		0	0	0	3'934	3'911
Moldova	0	52	86	55	126	1'039
Sweden		269'357	320'872	298'693	357'096	356'117
Turkey	101'991			340'066	441'231	503'271
Ukraine	551	6'069	6'069	7'476	38'897	68'611

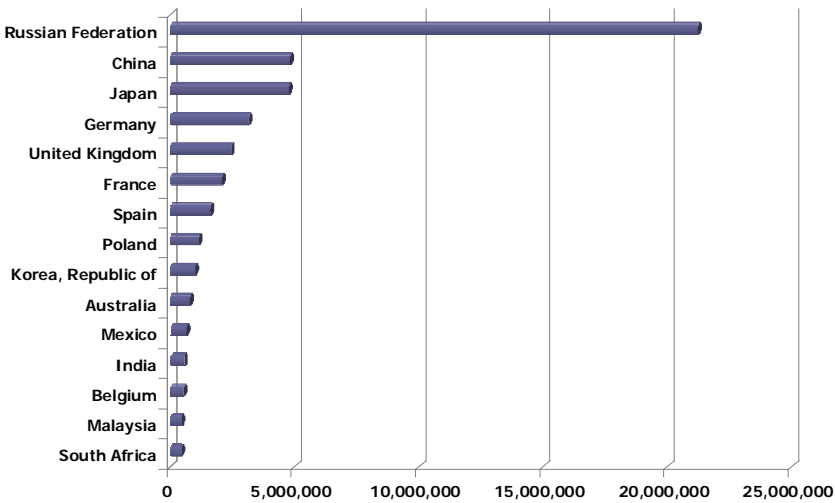


Graphs: Motor vehicle production indicators

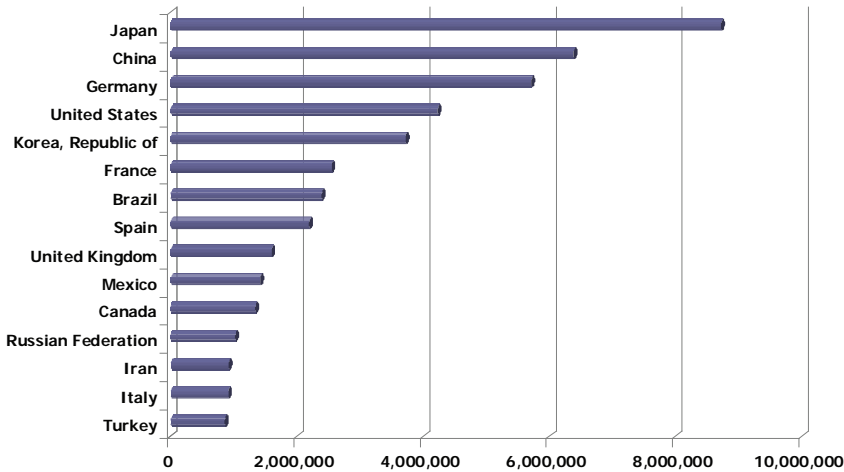
First registration of passenger cars per Income group



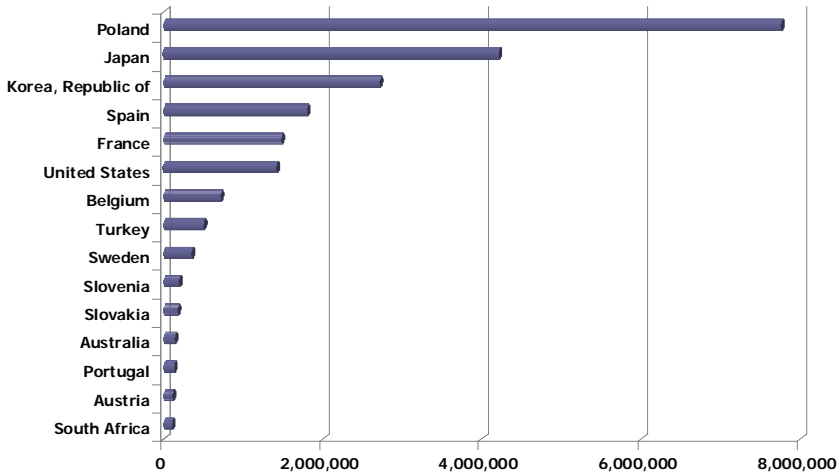
First registration of passenger cars – Top 15 countries



Production of passenger cars – Top 15 countries



Export of passenger cars – Top 15 countries



A close-up, slightly angled view of a stack of Euro banknotes. The top note is a 100 Euro note, with the number '100' and 'EURO' visible. Below it are several 50 Euro notes, with the number '50' and 'EURO' visible. The bottom note is a 20 Euro note, with the number '20' and 'EURO' visible. The lighting is soft, highlighting the texture of the paper and the metallic sheen of the numbers.

IRF WORLD ROAD STATISTICS 2009

PART-8  
ROAD EXPENDITURES

**1. Road expenditures:** Includes expenditures on constructions, maintenance, administrative costs and research.

**2. Construction expenditures:** Includes expenditures on new construction and extension of existing roads, including reconstruction, renewal and major repairs.

**3. Maintenance expenditures:** Expenditures for keeping roads in working order.

**4. Expenditures by administrative levels:** Sums paid by way of subvention by the Central Government to a Regional or Local Government, or by the latter to a local Government or municipality, are shown as expenditure of the government receiving the subvention so that this relates to their responsibility for the network.

**5. Currency exchange:** Exchange rate for national currency to Dollar on 31st December of each year.



**Table 8.1 : Total road expenditure per administrative levels (Mio \$)**

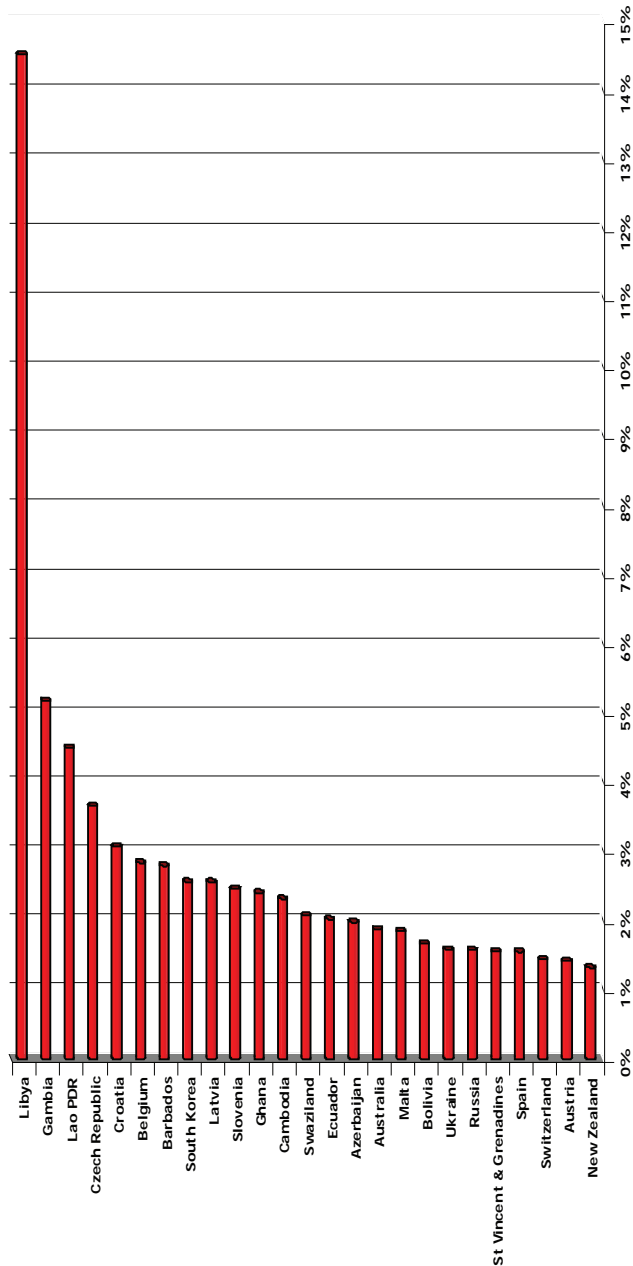
Country	Year	Central	Regional / Local	Private	Total
Australia	2007	2,444.36	8,175.57	4,798.41	15,418.342
China, Macao	2007	40.95			40.950
France	2007	5,449.19	18,409.43	7,260.68	31,119.293
Korea, Republic of	2007	7,857.90	14,638.89	4,386.75	26,883.547
Latvia	2007	472.84	263.94		736.778
Malta	2007	127.74	9.93		137.671
New Zealand	2007	1,425.08	371.13		1,796.207
Norway	2007	2,599.07	1,788.35		4,387.430
Spain	2007	5,367.68	5,412.24	11,551.05	22,330.960
Switzerland	2007	1,838.36	2,442.27		6,114.564
Ukraine	2007	2,152.85	106.99	0.14	2,259.980



**Table 8.2 : Total road expenditures (Mio \$) - (2002 / 2007)**

Country	2002	2003	2004	2005	2006	2007
Belarus		299.165	365.253	472.490	506.308	108.697
China, Macao	8.637	6.843	7.662	74.794	93.973	40.950
Ecuador	409.347	439.048		624.635	1,040.312	925.802
Finland	785.473	1,026.818	1,130.541	996.461	1,071.146	1,275.405
France	23,176.199	28,998.480	31,682.406	23,714.623	26,627.140	31,119.293
Iceland		199.576	250.589	212.718	227.007	257.984
Korea, Republic of			24,271.085	16,795.175	16,985.800	26,883.547
Latvia	55.597	181.886	228.507	304.492	417.398	736.778
Lithuania	217.406	307.338	352.860	330.188	407.114	487.024
Malta	32.451	26.659	29.628		134.049	137.671
Mexico	2,069.229	1,659.305	4,170.403	3,641.798	3,632.042	6,849.953
New Zealand	750.265	934.698	1,195.975	1,271.526	1,477.472	1,796.207
Singapore	448.641	276.222	268.734		249.283	199.306
Slovenia	444.740	589.850	633.349	617.215	782.198	1,162.545
Switzerland	4,668.307	5,125.707	5,623.673	4,792.235	5,279.028	6,114.564
Turkey		1,579.538	2,567.752	3,241.173	4,086.649	4,815.090
Ukraine	257.765		1,081.344	809.533	1,360.415	2,259.980

Graphs: Road Expenditure Indicators  
Total Road Expenditure (% of GDP) – Top 25 countries





IRF WORLD ROAD STATISTICS 2009

PART-9  
**ENERGY**

Fuel prices figures are collected using the following sources:

- o International fuel prices 2008 – 6th edition – German Technical Cooperation “GTZ” ;
- o World Development Indicators 2009 – World Bank.

Data on the road sector energy consumption are collected by the International Energy Agency, Statistics Division.




**Table 9.1 : Diesel prices (US \$ cent per liter) - 2002/2008**

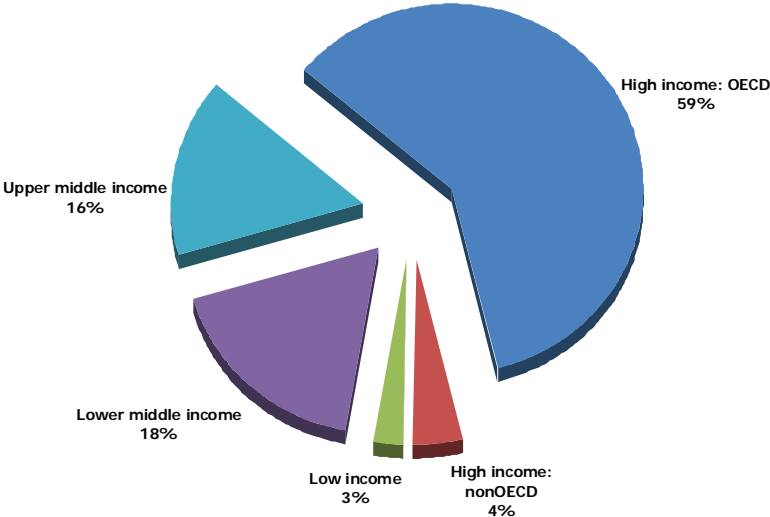
Country	ISO3	2002	2004	2006	2008
Botswana	BWA	38	61	74	102
Brazil	BRA	31	49	84	103
Congo, Rep.	COG	48	59	67	57
Cote d'Ivoire	CIV	60	95	106	120
Cuba	CUB	45	55	91	151
Cyprus	CYP	44	95	120	125
Honduras	HND	46	66	73	80
Lithuania	LTU	59	102	109	122
Nigeria	NGA	19	45	66	113
Norway	NOR	118	144	166	163
Romania	ROU	57	91	124	122
Sweden	SWE	96	137	144	152
Uzbekistan	UZB	26	30	54	75


**Table 9.2 : Road sector energy consumption in ktOE and in percent of total energy consumption / country - 2006/2007**

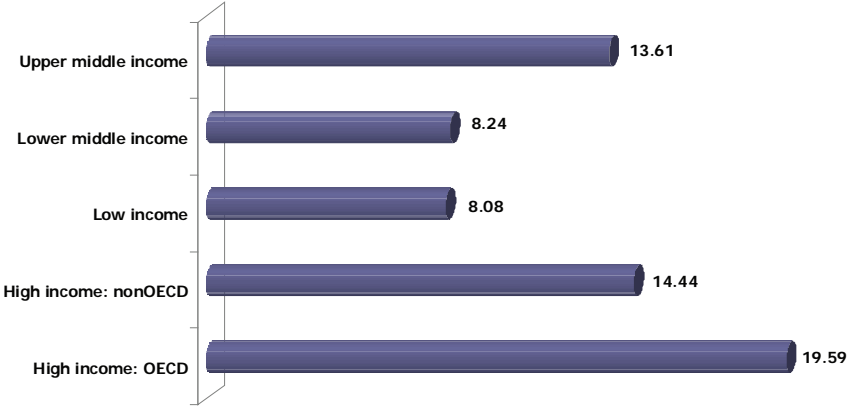
Country	Road sector consumption 2006	Road sector consumption 2007	% of total consumption 2006	% of total consumption 2007
Argentina	13,388	13,532	19.54	18.52
Azerbaijan	1,519	1,149	11.19	9.65
Botswana	512	532	26.25	26.30
Brazil	49,630	53,488	22.26	22.71
Canada	42,418	44,235	15.76	16.42
Chile	5,263	5,614	17.28	18.23
Georgia	525	659	17.31	19.71
Jamaica	556	531	12.85	10.71
Japan	74,574	73,098	14.39	14.23
Nepal	284	293	3.04	3.07
Saudi Arabia	26,745	29,719	18.42	19.77
Trinidad & Tobago	723	728	5.08	4.76
Zimbabwe	385	362	4.02	3.83

Graphs: Road and Energy indicators

Road sector total energy consumption 2007 / Income groups (%)



Road sector total energy consumption in percentage of the total primary energy supply (%) per income groups





**INTERNATIONAL ROAD FEDERATION**  
FEDERATION ROUTIERE INTERNATIONALE  
WWW.IRFNET.ORG

The **International Road Federation (IRF)** is a nongovernmental, not-for-profit organisation with the mission to encourage and promote development and maintenance of better, safer and more sustainable roads and road networks. Working together with its members and associates, the **IRF** promotes social and economic benefits that flow from well-planned and environmentally sound road transport networks. It helps put in place technological solutions and management practices that provide maximum economic and social returns from national road investments.

Since its foundation in 1948, the **International Road Federation** has had many successes and has much to be proud of. Not only has it been instrumental in providing leadership for global road infrastructure development, but it also brought road professionals and people of the world together in a common mission in a way that no other road organisation could.

The **International Road Federation** has a major role to play in all aspects of road policy and development worldwide:

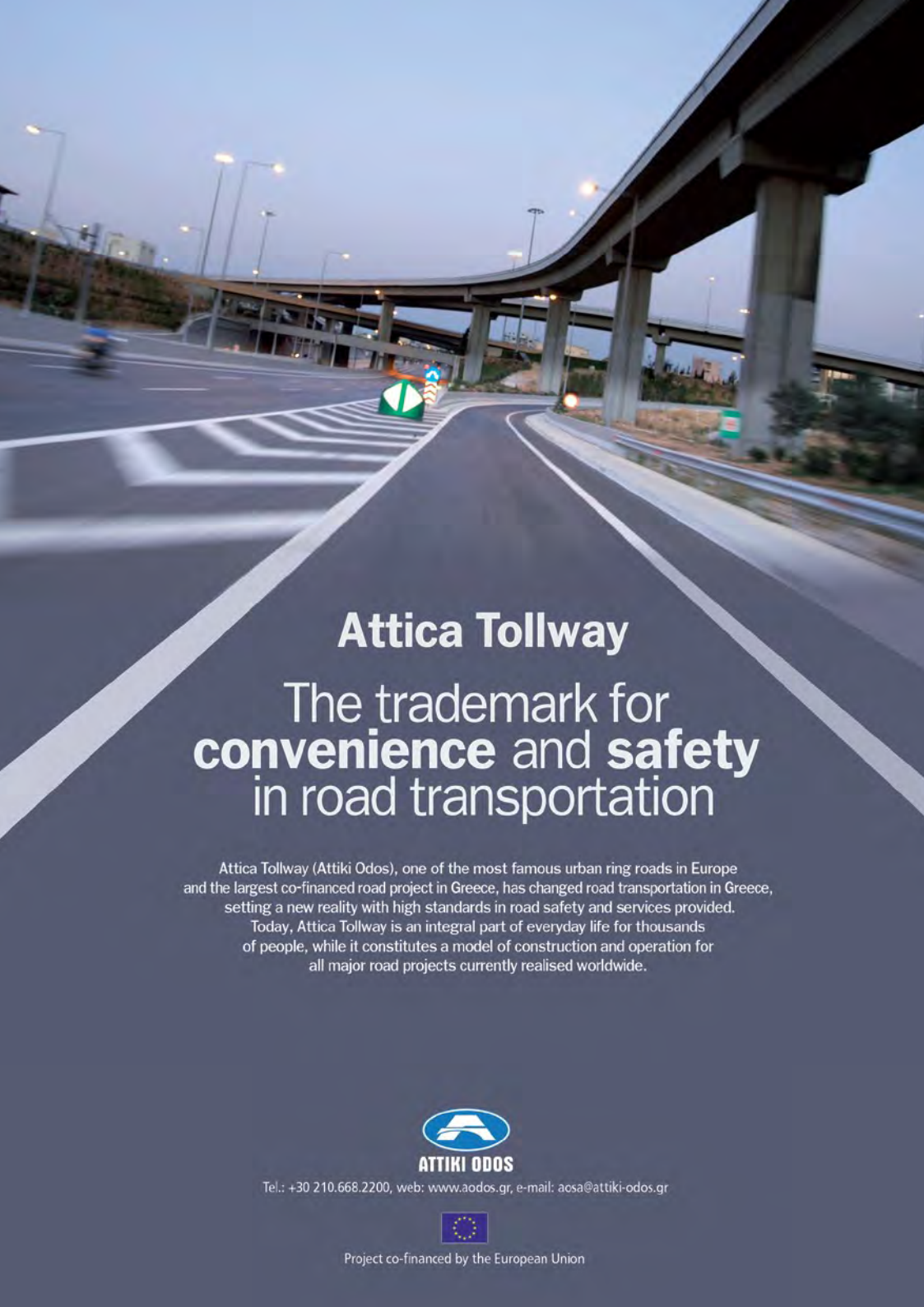
- For governments and financial institutions, the **IRF** provides a wide base of expertise for planning road development strategy and policy.
- For its members, the **IRF** is a business network, a link to external institutions and agencies, such as the United Nations and the European Union, and a business card of introduction to government officials and decision makers.
- Throughout the community of road professionals, the **IRF** is a source of support and information for national road associations, advocacy groups, companies and institutions dedicated to the development of road infrastructure.

With a wide network across over eighty countries on six continents, the **International Road Federation** believes that it can make a difference by providing best practices and expert advice to today's multi-faceted world of transport. Active in the advocacy of all issues relevant to the road industry, from financing to technology and from development to safety, it serves as a catalyst for public and private partnership to organise, promote and develop international road programmes.

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Contact us at [info@irfnet.org](mailto:info@irfnet.org) if you wish further information or learn how to join the IRF.

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Project co-financed by the European Union