TRANSPORTATION NETWORKS
IN THE OIC MEMBER COUNTRIES
IMPACT ON TRADE AND TOURISM

INTRODUCTION

Transportation is an indispensable element in any economic activity. Without physical access to resources and markets, economic growth and development cannot be possible. An efficient multimodal transportation system is, therefore, a fundamental element in sustainable economic development. It facilitates the transfer and movements of people, goods, services and resources and improves access to local and international markets. The development of modern and efficient multimodal transportation infrastructures and services, together with adequate and coherent relevant laws and regulations, are also crucial factors for enhancing and strengthening regional economic cooperation and integration.

The OIC countries as a group account for one sixth of the world land area and enjoy a vast strategic trading region. In addition, they are well-endowed with potential economic resources in different fields and sectors, such as agriculture, energy and mining, tourism, etc. In order for the OIC countries to maximize the efficient utilisation of these inherent potentials, with a view to enhancing trade and economic development and thus competitiveness and market integration, it is necessary, inter alia, to establish a multimodal transportation system which is efficiently functioning not only at the individual country level but also at the OIC regional level. Improving transportation networks in and among OIC countries is, therefore, a key factor that has direct impacts on enhancing and strengthening trade and economic integration in OIC countries at both the regional and world trading system levels.

Transportation networks facilitate mass carriage of goods, which is of special importance to the OIC countries since the majority of them are producers of primary commodities, mainly fuel and agricultural ones. Integrated transportation networks at both OIC regional and sub-regional levels would be also in harmony with the Islamic free trade area and the Islamic common market strategies of the OIC. The diverse geographic characteristics of the OIC countries, which considered as a natural constraint for enhancing economic and commercial cooperation among them, make it necessary to fully utilise the already established transportation networks on the one hand, and to develop them further, on the other.

Yet, as the present report shows, the low level of transport capacity in OIC countries, as a group, has undoubtedly, reflected in poor transport performance and ineffective use of the existing transport facilities, a factor which has, among others, negative impact on trade and tourism activities in these countries. It is clear that the present situation of transportation networks in the OIC countries, in terms of both capacity and performance, is still far from reaching the desired level of impact on intra-OIC trade and tourism activities.

CAPACITY OF THE OIC COUNTRIES IN VARIOUS MODES OF MODERN TRANSPORT

A comparative look at the capacity of the OIC countries in different modes of modern transport reveals some key challenges ahead of intra-OIC cooperation in trade.

Road Transport

Road network length, when standardized on a per capita basis, can be considered a proxy for measuring the extent to which every person in any given country or region is served by roads. The length of road network per capita within the group of OIC member states is modest when compared to other developing countries, developed countries as well as the world average. Based on the most recent data available as of 2011, the average road length for 1000 people living in the OIC member countries is calculated as 2.52 km, which compares poorly to the world average of 5.42 km (Figure 1 left panel). The average road density is 3.19 km in other developing economies. In developed economies, however, per 1000 resident people are served by as much as 15.52 km of road network.
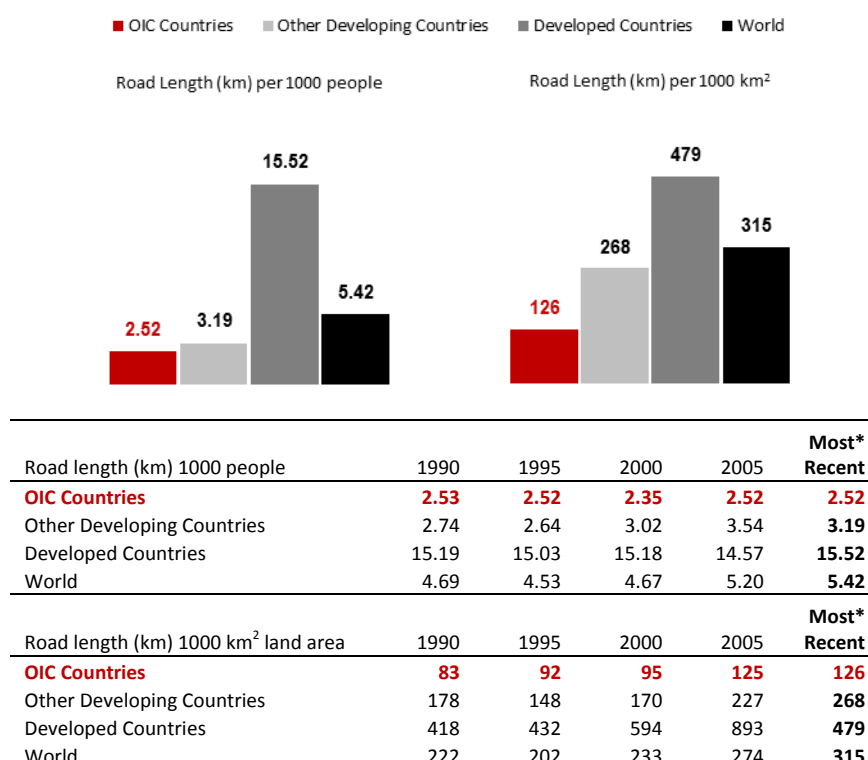
Figure 1

Road Network Density

* 2005 or later.

Road length (km) 1000 people	1990	1995	2000	2005	Most* Recent
OIC Countries	**2.53**	**2.52**	**2.35**	**2.52**	**2.52**
Other Developing Countries	2.74	2.64	3.02	3.54	**3.19**
Developed Countries	15.19	15.03	15.18	14.57	**15.52**
World	4.69	4.53	4.67	5.20	**5.42**

Road length (km) 1000 km^2 land area	1990	1995	2000	2005	Most* Recent
OIC Countries	**83**	**92**	**95**	**125**	**126**
Other Developing Countries	178	148	170	227	**268**
Developed Countries	418	432	594	893	**479**
World	222	202	233	274	**315**

Source: Appendices 1-2

When standardization is based on the land area, the average road network of 126 km per 1000 km^2 land area within the OIC countries group is almost the halfway to the other developing economies (268 km) and less than one third of that of the developed economies (479 km). The world average is currently 315 km (Figure 1

right panel). Measured through either approaches, the results point to the strong need for further development of the road networks in the OIC member countries.

Rail Transport

Heavy industries are traditionally linked to the rail transport systems and the containerization improves the flexibility of rail transportation by linking it with road and maritime modes. The average length of railway serving 1000 people is only 70 meters within the group of OIC countries, while the world average is 170 meters – more than double (Figure 2 left panel). The poor figures in the OIC countries are mainly caused by the stagnant rail line infrastructure growth coupled with the increasing population. Other developing economies are also lagging behind the world with their average 120 meter of railway length per 1000 people, which is far below the average 540 meter rail network in operation for every 1000 people resident in the developed countries.
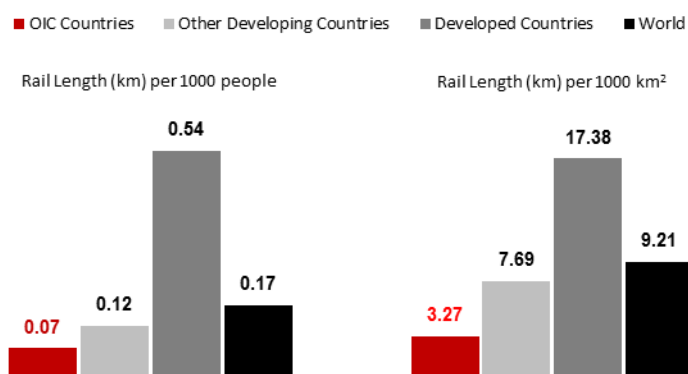
Figure 2

Rail Network Density

* 2005 or later.

Railway length (km) per 1000 people	1990	1995	2000	2005	Most* Recent
OIC Countries	**0.09**	**0.07**	**0.07**	**0.08**	**0.07**
Other Developing Countries	0.14	0.13	0.11	0.12	**0.12**
Developed Countries	0.50	0.45	0.45	0.52	**0.54**
World	0.19	0.19	0.16	0.18	**0.17**

Railway length (km) 1000 km^2 land area	1990	1995	2000	2005	Most* Recent
OIC Countries	**3.08**	**2.88**	**3.04**	**3.13**	**3.27**
Other Developing Countries	7.25	7.09	7.11	7.88	**7.69**
Developed Countries	17.16	28.41	19.08	21.53	**17.38**
World	8.30	8.71	8.10	9.35	**9.21**

Source: Appendices 3-4

In terms of land coverage, again, the average 3.27 km of railway per 1000 km^2 land area of the OIC countries is still below that of the group of other developing economies, which averages at 7.69 km (Figure 2 right panel). It is observed that the improvement in overall railway figures for the OIC countries as a group has so far been relatively poorer in comparison to those of other developing countries and the world.

Air Transport

Beyond the benefits of fast and inexpensive transcontinental travel, air transport also is now a vital mode for shipping high value goods that need to come to market quickly, such as agricultural products subject to spoilage. Air transport has become an essential economic and social conduit throughout the world. According to 2010 World Health Organization (WHO) data, it is now the primary mode of transport for tourism activities.

The average number of air passengers in the OIC countries, measured on per 1000 people basis, is still below the desired levels. According to the most recent data available as of 2011, the density of the domestic and international passengers carried by aircrafts registered in the OIC countries is calculated as 118 per 1000 people (Figure 3 right panel). The world average is recently 346 passengers. Other developing countries, on the other hand, followed closely the OIC countries as a group with an average density of 128 passengers. Moreover, the passenger density in other developing countries has tripled in number since 1990, surpassing the average pace of growth in the OIC member countries over the same period.
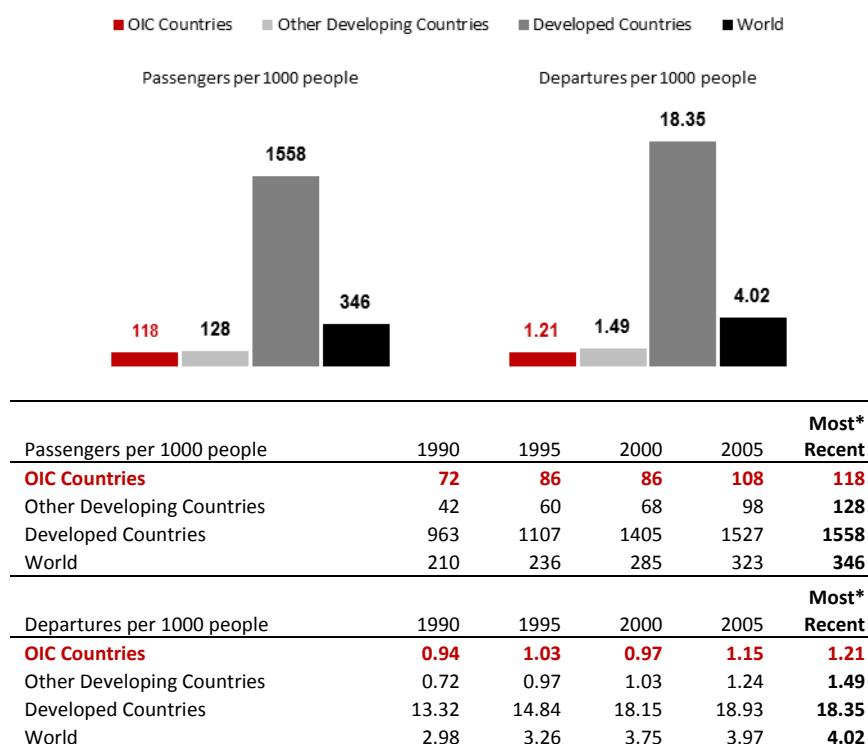
Figure 3

Air Network Density

* 2005 or later.

Passengers per 1000 people	1990	1995	2000	2005	Most* Recent
OIC Countries	**72**	**86**	**86**	**108**	**118**
Other Developing Countries	42	60	68	98	**128**
Developed Countries	963	1107	1405	1527	**1558**
World	210	236	285	323	**346**

Departures per 1000 people	1990	1995	2000	2005	Most* Recent
OIC Countries	**0.94**	**1.03**	**0.97**	**1.15**	**1.21**
Other Developing Countries	0.72	0.97	1.03	1.24	**1.49**
Developed Countries	13.32	14.84	18.15	18.93	**18.35**
World	2.98	3.26	3.75	3.97	**4.02**

Source: Appendices 5-6

The low frequency of air travel in the OIC countries has to some extent been reflected in the small number of aircraft departures compared to the world average. Calculations based on the most recent data available reveals that the density of domestic and international takeoffs by carriers registered in the OIC countries is only 1.21 per 1000 people, while the world average is 4.02 departures for the same number of people (Figure 3 right panel).

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The low levels of air traffic observed in the OIC countries can be attributed to the lack of infrastructure facilities such as proper terminals and paved runways which are very low in number and size.

Sea Transport

With more than 100,000 km of total coastline, OIC countries possess significant potential for maritime trade. Yet, the current level of merchant fleet capacity – expressed in tonnes per 1000 people – in the group of OIC member countries is far from enabling the group to fully utilize this potential. The total fleet capacity per 1000 people is measured as only 53 tonnes compared to the world average of 199 tonnes (Figure 4). Other developing countries as a group have improved their fleet capacity significantly since 1990, reaching 175 tonnes per 1000 people.
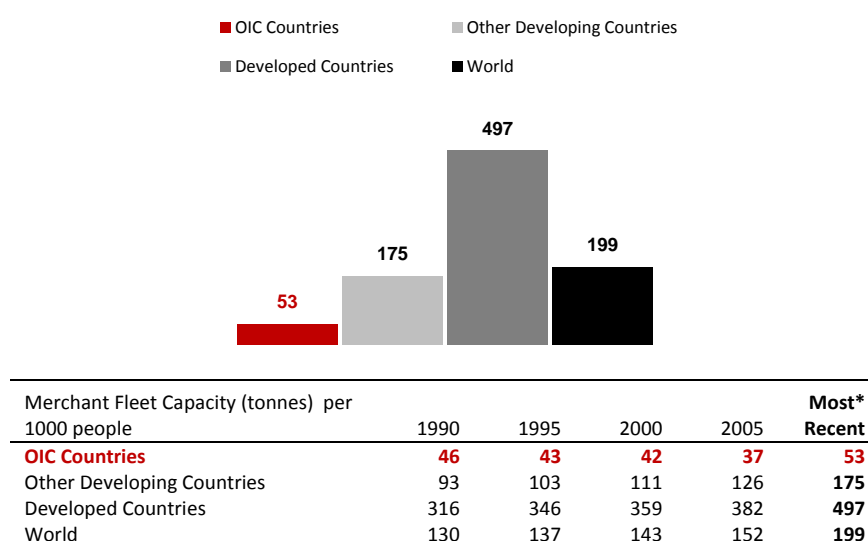
Figure 4

Maritime Fleet Capacity
tonnes per 1000 people

* 2005 or later.

Merchant Fleet Capacity (tonnes) per 1000 people	1990	1995	2000	2005	Most* Recent
OIC Countries	**46**	**43**	**42**	**37**	**53**
Other Developing Countries	93	103	111	126	**175**
Developed Countries	316	346	359	382	**497**
World	130	137	143	152	**199**

Source: Appendix 7

Liner Shipping Connectivity Index[1] aims at capturing a country's integration level into global liner shipping networks. The index is generated from five components[2], which are mainly related to the maritime capacity of the country. According to this index, the majority of the OIC countries have poor shipping connectivity performances ranging between 0 and 20 index units (Figure 5). Malaysia, United Arab Emirates, Saudi Arabia, Morocco, Oman and Egypt are the OIC countries with the highest index values. These countries also outperform other developing countries other than China. Almost half of the developed countries, on the other hand, stand out with their high maritime capacities indicated by index values greater than 50 index units.

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[1] Index is based on the country with the highest index value in 2004 (China=100).

[2] These are number of ships, total container carrying capacity, max. vessel size, number of services and number of container shipping companies.
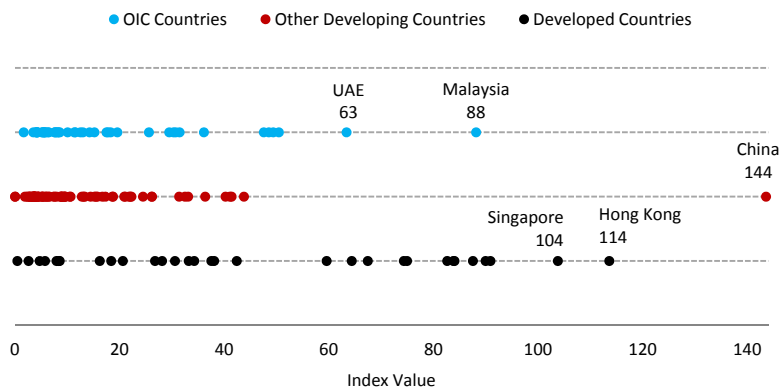
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Figure 5

Liner Shipping Connectivity Index
2010

Source: UNCTADstat Online Database

The modest transport development figures in various transport modes presented above indicate that transportation infrastructure in the OIC countries is incompetent and the transportation system as a whole offers poor connectivity, which is an essential ingredient of enhanced trade cooperation among the member states.

PERFORMANCE OF THE OIC COUNTRIES IN VARIOUS MODES OF MODERN TRANSPORT

The underdeveloped transport infrastructure coupled with poor transport links between the OIC member states has long stifled intra-OIC cooperation in trade and tourism. Even the busiest airports in the OIC member countries, such as Jakarta[3] and Kuala Lumpur[4] international airports, have direct flights to only a few OIC countries. For example, Jakarta International Airport hosts scheduled passenger flights to only six member states[5]. Similarly, Kuala Lumpur International Airport organizes cargo flights to only four member countries[6]. Currently, approximately 20 member countries have only one international airport in operation. This inadequate direct air link, observed even at the busiest airports, and the resulting higher freight and human transport costs and times among the OIC countries compounds the inability to operationalize intra-OIC trade and tourism cooperation efforts. On the other hand, although the group of OIC countries comprises mainly of countries that are adjacent to each other, the poor rail connectivity among adjacent OIC member countries undermines the prospects for building efficient trade corridors. Many OIC member countries have no railway connections to adjacent member states and many others face the *break-of-gauge* problem which leads to an increase in the duration and cost of rail shipments. Thus, apart from the negative impacts of the poor transport

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[3] 16th busiest airport by passenger traffic according to Airports Council International (ACI) 2010 data.

[4] 28th busiest airport by cargo traffic according to Airports Council International (ACI) 2009 data.

[5] These are Malaysia, Saudi Arabia, United Arab Emirates, Kuwait, Qatar, Brunei, Turkey and Yemen.

[6] These include Azerbaijan, Indonesia, Turkey and Uzbekistan.

development on *overall* OIC trade and tourism volume, the poor rail connectivity among the adjacent member countries pose additional challenge to creating a stronger *intra*-OIC cooperation in bulk trade.

Indeed, the performance of the OIC countries in two major modes of passenger and goods transport was modest in 2009. The group of OIC member countries accounted for only 4 and 5 percent of the total goods and people transported through the rail networks in the world during 2009, respectively (Figure 9). The member countries as a group had slightly better figures in air transport with shares of 10 and 9 percent in total air freight and passengers carried on planes during the same year, respectively.
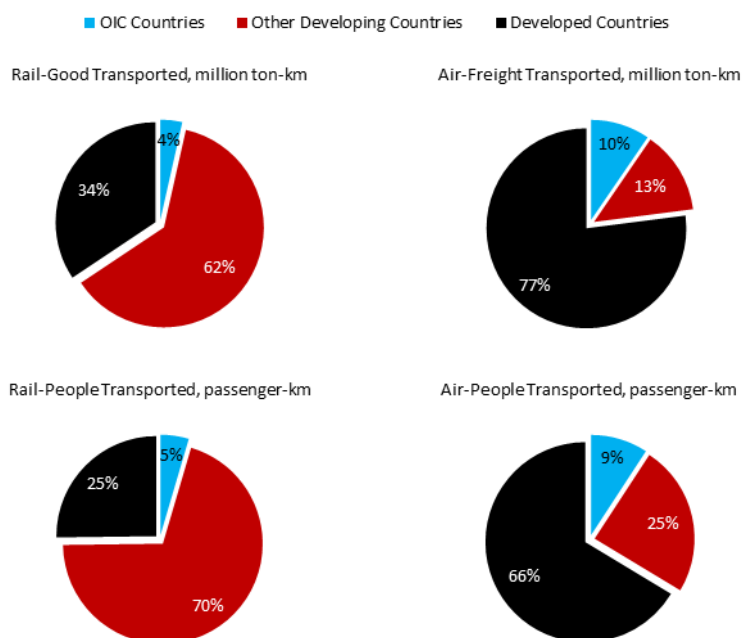
Figure 6

Share of OIC Countries in Rail and Air Transport

2009

Source: World Bank WDI Online

Clearly, the poor average transport capacity figures observed in the group of OIC member countries translates into incompetency in logistics, which is the backbone of trade. Logistics Performance Index measures the performance of a country along its logistics supply chain and provides qualitative evaluations of that country in six areas, four of them[7] being directly linked to the level of transport development. According to this index, as of 2009, 35 percent of the OIC countries had poor logistics performance figures below 2.40 index units (Figure 10 left panel), while only 23 percent of other developing countries were below this threshold. United Arab Emirates (3.63) and Somalia (1.34) were the two OIC member countries with the highest and lowest logistics performance index values, respectively (Figure 10 right panel). In contrast,

Figure 7

Logistics Performance Index

Source: World Bank WDI Online
*Thresholds are based on World Bank classification

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[7] These are infrastructure, international shipments, logistics competence and timeliness.

74 percent of the developed countries recorded index values greater than 3.43 index   units.

Logistics Performance Index, % of Countries by Index Value*

OIC Countries: 3.43<LPI<5 10%, 2.78<LPI<3.43 21%, 2.48<LPI<2.78 35%, 0<LPI<2.48 35%

Other Developing Countries: 4%, 26%, 46%, 23%

Developed Countries: 74%, 26%

OIC Countries — Somalia 1.34, Qatar 2.95, UAE 3.63
Other Developing Countries — Eritrea 1.70, China 3.49
Developed Countries — Malta 2.82, Germany 4.11
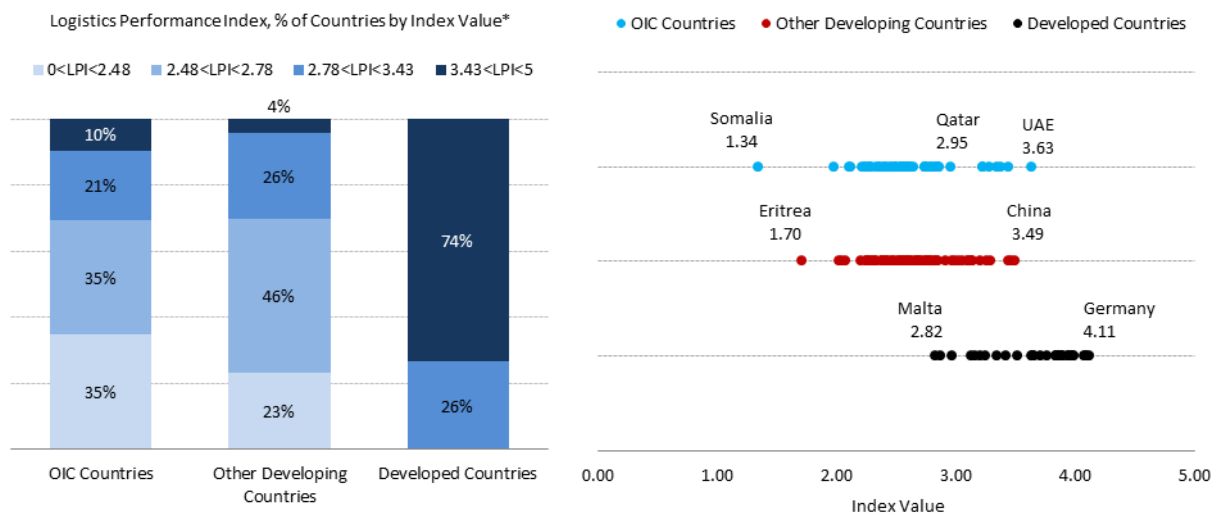
LINKING TRANSPORTATION TO TRADE AND TOURISM

From an economic development point of view, efficient transportation system can positively affect the pace of growth and development of trade and tourism activities through at least four ways (Weisbrod, 2008):

  i.   by enabling *new forms of trade* among industries and locations;
  ii.   by reducing *carrying cost* and enhancing *reliability* of existing trade and tourism movements;
  iii. by expanding the *size of markets* and enabling *economies of scale* in production and efficient distribution of goods and services; and
  iv.   by increasing *productivity* through access to more diverse and specialized labor, supply and buyer markets.

In the light of this argument, the impact of transportation on trade and tourism is highlighted in this section through examining the relation between the capacity in key transport indicators and per capita trade performance at the country level. The data on the transport capacity covers the period starting from the year 2000 whereas the data on per capita trade and tourism figures are averaged over the period 2000-2009 for each country. For road transport, Figures 8a and 8b indicate a strong relationship between the growth in per capita trade volume and the road infrastructure development. The relationship between the two indicators is almost linear, implying that the growth in the per capita road network is linked to the increase in trade and tourism volume on a constant scale.

Figure 8a

Trade volume and road network density

Source: World Bank WDI Online and SESRIC Staff Calculations
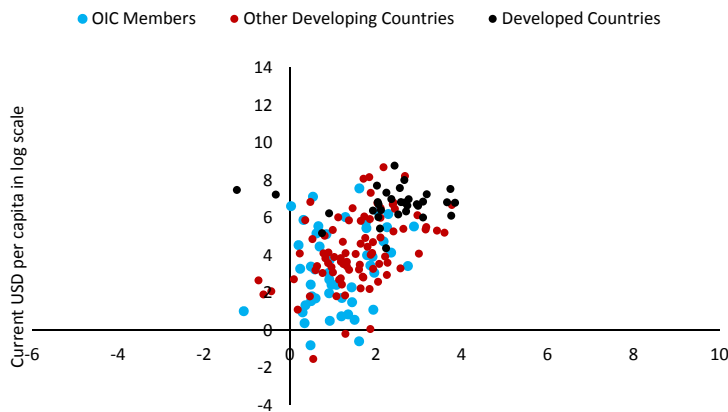
Figure 8b

Tourism volume and road network density

Source: World Bank WDI Online and SESRIC Staff Calculations

It is also clear from the figures that the OIC countries, with low road density, have a significant potential for increasing their trade and tourism volumes by improving their road network infrastructure. The OIC member countries apparently cluster in the low trade (tourism) volume-low road density region. The clustering of non-OIC developing and advanced country groups in the middle and upper parts of the figure is also evident, indicating that these countries achieved higher trade and tourism volumes in return for their higher levels of road network development. The lack of investment in road infrastructure seems to set back the ability of the member countries to increase their trade and tourism, thus putting them behind the other developing and developed countries.

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OIC Countries • Other Developing Countries • Developed Countries
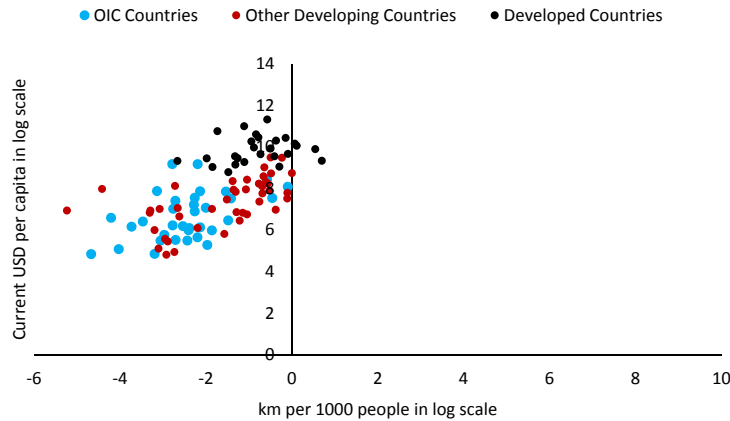
Figure 9a

Trade volume and rail network density

Source: World Bank WDI Online and SESRIC Staff Calculations

OIC Members • Other Developing Countries • Developed Countries
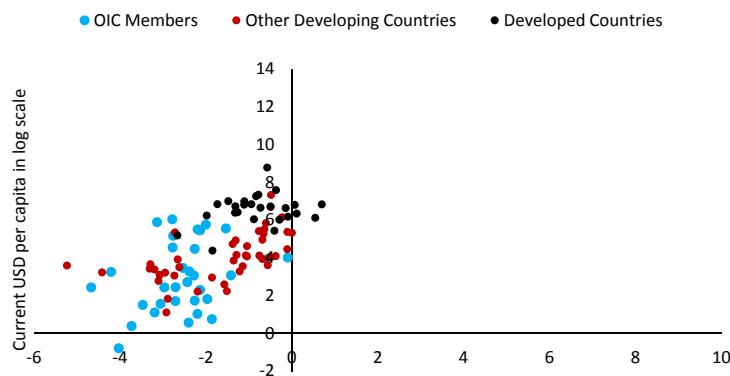
Figure 9b

Tourism volume and rail network density

Source: World Bank WDI Online and SESRIC Staff Calculations

A similar result is observed in the case of rail network. In this regard, Figures 9a and 9b reveal significant mutual relationships between the rail per capita growth and the growth in per capita trade and tourism volumes. Again, the OIC countries appear mainly in the low trade (tourism) volume-low rail per capita region and the positive linear relationship between the indicators are preserved in each country sub-group included in the figure. The strong correlation between rail transport capability and trade performance offers a motivation for the OIC member states with underdeveloped rail infrastructures to extend their rail networks. For example, in the landlocked Uganda only an approximate 300-km portion of the total 1,266 km rail network is operational and it lacks connections to the neighboring countries such as Sudan, Congo (DR), Rwanda and Tanzania, 3 out of which have direct access to sea. Other lines were closed mainly due to their technical deficiencies. Railways carry less than 10 percent of export and import traffic in Uganda. Transit time to the Port Mombasa of the adjacent Kenya is about 10 days (Itazi, 2010). Zambia, on the other hand, is another non-OIC landlocked country within the region and almost 2000 km of its rail network is functional with direct and indirect links to adjacent Congo, Tanzania, Malawi, Zimbabwe and Angola. Unsurprisingly, its average per capita trade volume over the last ten years has been as high as four times that of Uganda.

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Despite the considerably varied air transport capabilities in OIC countries, the structural link between the development of air transport and trade and tourism levels is much more clear (Figures 10a and 10b). Developed economies again cluster at the upper right corner of the figure where the higher per capita trade and tourism volumes are associated with the higher levels of development in the air transport sector. The OIC countries are apparently represented on a large scale of air transport capabilities, where the member countries with a more developed air network performing better in trade and tourism activities.
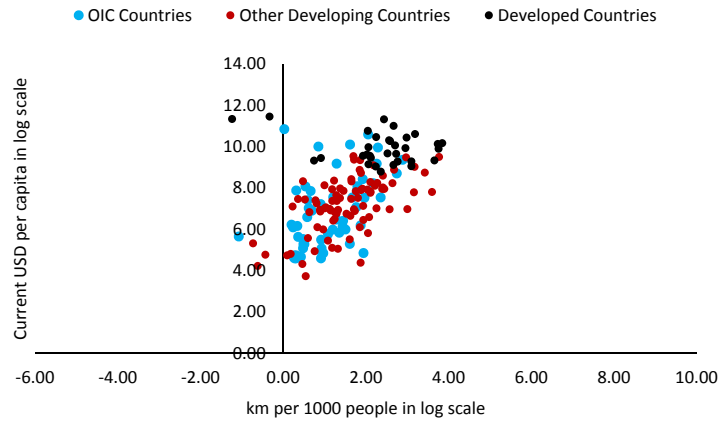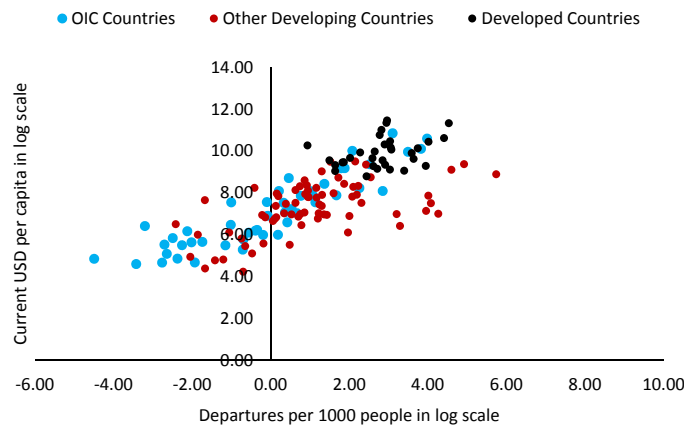

Figure 10a

Trade volume and air network density

Source: World Bank WDI Online and SESRIC Staff Calculations
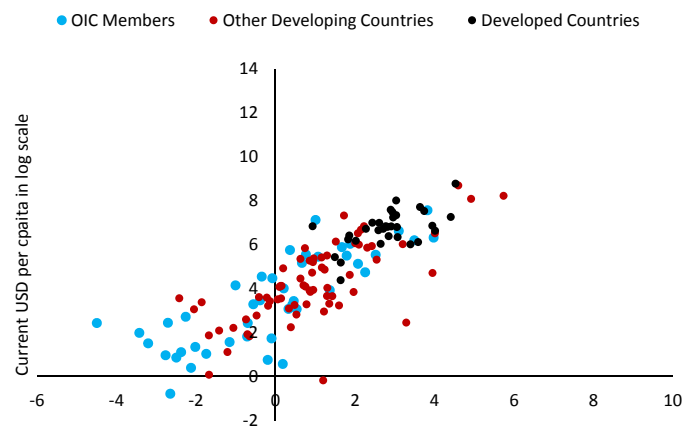


Figure 10b

Tourism volume and air network density

Source: World Bank WDI Online and SESRIC Staff Calculations

CONCLUDING REMARKS AND RECOMMENDATIONS

The current level of transport capacity and performance in the OIC countries points to a strong need for more progress in transportation development within the group of OIC countries. When the average transportation figures of the OIC countries, as a group, are related to the figure of either population or land area, they remained lagging compared to the rest of developing countries as well as to the world average.

In this framework, OIC countries face critical obstacles and challenges in the field of transportation in particular in connection to trade and tourism. Already inadequate

infrastructure and maintenance services cannot be improved considerably due to insufficient financing resources and investment in transportation sector and transportation infrastructure projects. Complex and prolonged customs and border-crossing procedures, especially in land-locked member countries, prevent the development of trade and transportation.

Another challenge faced by OIC countries is inadequate implementation of trade and transport facilitation measures and lack of information and knowledge-sharing among OIC member countries in this area. Lack of a sound, harmonized, and adequate legal and regulatory frameworks, both at national and OIC regional level further exacerbates this challenge. Moreover, OIC countries lack the adequate human and institutional capacity of relevant transportation authorities. The use of Information and Communication Technologies (ICT) in the area of transport, trade facilitation and tourism is also lagging.

In the light of the above-identified obstacles and challenges, the following recommendations can be made at both national and OIC cooperation level.

At the national level, the solution of infrastructure problems requires sustainable longer-term investment and involvement of the private sector in transport project investments through OIC joint venture transport projects. Measures should be developed to improve maintenance of existing roads, railways, seaports and airports as well as to improve the quality of these transport modes services. Efficient resources should be allocated to the projects, programs and studies in transport sector, in collaboration with regional and international financial institutions.

More attention from private investors should be attracted through rational incentives. Private investments via Public-Private Partnership (PPP) scheme have become popular around the world as a tool for improving transport infrastructure. The 4th United Nations Conference on the Least Developed Countries (LDCs) which was held in Turkey in early May 2011 hosted various meetings on the issue of insufficient infrastructure development in the LDCs and the PPP scheme was set forth as a potential solution to this problem.

Transport sector reform has to be set in the context of general reform of public institutions and transport development plans should be integrated into their national strategies taking into consideration regional initiatives. National Trade and Transport Facilitation Committees (NTTFC) can be established for better coordination among private and public sectors institutions. This can help to identify the major transport related obstacles to tourism in the member countries by increasing coordination among the ministries of transport and tourism. Such mechanisms should be further improved by developing tools for knowledge-sharing on best practices and using ICT for trade and transport facilitation and tourism in cooperation with relevant regional and international organizations.

At the OIC cooperation level, developing an OIC regional transport approach requires close cooperation and coordination between the member countries as well as the different organization and agencies involved. It also requires concluding of framework agreement on the priorities both in the infrastructure and policy areas. High level policy coordination among Ministers of Transport in member countries can help promote dialogue on the challenges and problems facing the sector in the OIC region.

Creating a database of statistical information from the OIC member countries in the field of transport and exchanging of information among OIC member countries about their domestic and international transport facilities can help improve the networks throughout the OIC. Enhancing partnership with relevant regional and international organizations in the field of transport to avoid duplication and enhance effectiveness. In this framework, a master plan for the transport corridors in the OIC Member States including identification of the obstacles on the existing transport corridors in the OIC sub-regions should be prepared. Projects similar to the Port Sudan-Dakar railway line project should be designed and implemented to create grounds of cooperation among OIC member states in the field of transportation.

Due to the significant variations in the spatial distribution of population, the intensity of economic activities and the level of economic development among the member countries, the potential solutions to poor transport development should be tailored to the challenges faced by each individual country. Particularly for the land-locked member countries, the land transport is vital to economic development as the infrastructure development significantly contributes to the economic growth by reducing production costs, contributing to the diversification of the economy and, most importantly, linking these regions to transport corridors. In this regard, the OIC effort to coordinate OIC transport related activities with the Transport Corridor Europe – Caucasus – Asia (TRACECA) as well as the UN Special Programme for Central Asia (SPECA) is worthwhile.

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Appendix 1: Road Network Land Density, km per 1000 km^2

Country	Value					Average*			
Name	1990	1995	2000	2005	Most* Recent	Geographic Region		Income Level	
Afghanistan	32	32	32	53	65	SA	834	L	91
Albania		657	657	657	657	ECA	297	UM	124
Algeria	37	43	44	45	45	MENA	93	UM	124
Azerbaijan	630	322	332	715	715	ECA	297	UM	124
Bahrain	3835	3993	4593	4927	5424	MENA	93	H	482
Bangladesh	1444	1567	1594	1838	1838	SA	834	L	91
Benin	61	61	61	172	145	SSA	84	L	91
Brunei Darussalam	192	322	218	693	564	EAP	290	H	482
Burkina Faso	36	46	46	338	338	SSA	84	L	91
Cameroon	72	73	106	109	109	SSA	84	LM	311

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Country						Average			
Chad	24	26	27	32	32	SSA	84	L	91
Comoros			473	473	473	SSA	84	L	91
Cote d'Ivoire	155	158	158	252	252	SSA	84	LM	311
Djibouti	124	125	132			MENA	93	LM	311
Egypt	46	58	64	93	65	MENA	93	LM	311
Gabon	29	30	33	36	36	SSA	84	UM	124
Gambia	239	264	270	374	374	SSA	84	L	91
Guinea	121	123	124	180	180	SSA	84	L	91
Guinea-Bissau	146	155	156	123	123	SSA	84	L	91
Guyana	36	40	40			LAC	158	LM	311
Indonesia	159	181	196	216	216	EAP	290	LM	311
Iran	80	96	103	106	106	MENA	93	UM	124
Iraq	96	106	104	103	103	MENA	93	LM	311
Jordan	83	76	82	86	88	MENA	93	LM	311
Kazakhstan	59	56	44	34	34	ECA	297	UM	124
Kuwait	222	245	250	323	323	MENA	93	H	482
Kyrgyz Republic	98	97	96	96	177	ECA	297	L	91
Lebanon	623	622	714	681	681	MENA	93	UM	124
Libya	42	46	47	57	57	MENA	93	UM	124
Malaysia	164	186	202	283	283	EAP	290	UM	124
Maldives					293	SA	834	LM	311
Mali	11	12	12	15	15	SSA	84	L	91
Mauritania	7	7	7	9	11	SSA	84	L	91
Morocco	133	136	129	129	130	MENA	93	LM	311
Mozambique	34	38	39			SSA	84	L	91
Niger	9	8	8	15	15	SSA	84	L	91
Nigeria	134	212	213	212	212	SSA	84	LM	311
Oman	76	99	106		158	MENA	93	H	482
Pakistan	219	278	311	335	336	SA	834	LM	311
Palestine				830	855	MENA	93	LM	311
Qatar	99	104	106		672	MENA	93	H	482
Saudi Arabia	70	71	76	111	111	MENA	93	H	482
Senegal	72	76	76	71	71	SSA	84	LM	311
Sierra Leone	158	158	158	158	158	SSA	84	L	91
Somalia	33	35	35			SSA	84	L	91
Sudan	4	5	5			SSA	84	LM	311
Suriname	27	29	29	28	28	LAC	158	UM	124
Syria	181	202	227	205	218	MENA	93	LM	311
Tajikistan	213	198	198			ECA	297	L	91
Togo	136	138	138			SSA	84	L	91
Tunisia	129	145	122	124	124	MENA	93	LM	311
Turkey	477	495	501	555	555	ECA	297	UM	124
Turkmenistan	45	48	51	125	125	ECA	297	LM	311
Uganda				359	359	SSA	84	L	91
United Arab Emirates	52	57	58	48	49	MENA	93	H	482
Uzbekistan	170	188	192			ECA	297	LM	311
Yemen	97	122	123	135	135	MENA	93	LM	311
OIC Countries	**83**	**92**	**95**	**125**	**126**				
Other Developing Countries	**178**	**148**	**170**	**227**	**268**				
Developed Countries	**418**	**432**	**594**	**893**	**479**				
World	**222**	**202**	**233**	**274**	**315**				

* 2005 or later.
Source: World Bank

Appendix 2: Road Network Population Density, km per 1000 heads

Country	Value					Average*			
Name	1990	1995	2000	2005	Most* Recent	Geographic Region		Income Level	
Afghanistan	1.13	1.01	0.89	1.30	1.53	SA	2.64	L	2.08
Albania		5.74	5.87	5.79	5.79	ECA	9.21	UM	6.21
Algeria	3.49	3.62	3.41	3.30	3.30	MENA	2.96	UM	6.21
Azerbaijan	7.32	3.49	3.40	7.05	7.05	ECA	9.21	UM	6.21
Bahrain	5.37	4.91	5.02	4.81	5.07	MENA	2.96	H	15.00
Bangladesh	1.63	1.59	1.47	1.56	1.56	SA	2.64	L	2.08
Benin	1.42	1.19	1.02	2.41	1.97	SSA	2.71	L	2.08
Brunei Darussalam	3.93	5.76	3.45	9.86	7.57	EAP	3.33	H	15.00

Name	1990	1995	2000	2005	Most* Recent	Geographic Region		Income Level	
Burkina Faso	1.12	1.23	1.07	6.73	6.73	SSA	**2.71**	L	**2.08**
Cameroon	2.79	2.44	3.15	2.88	2.88	SSA	**2.71**	LM	**2.62**
Chad	4.86	4.59	3.98	3.99	3.87	SSA	**2.71**	L	**2.08**
Comoros			1.63	1.47	1.47	SSA	**2.71**	L	**2.08**
Cote d'Ivoire	3.92	3.35	2.92	4.16	4.07	SSA	**2.71**	LM	**2.62**
Djibouti	5.14	4.63	4.20			MENA	**2.96**	LM	**2.62**
Egypt	0.80	0.91	0.91	1.20	0.81	MENA	**2.96**	LM	**2.62**
Gabon	8.17	7.05	6.86	6.70	6.70	SSA	**2.71**	UM	**6.21**
Gambia	2.66	2.43	2.07	2.45	2.45	SSA	**2.71**	L	**2.08**
Guinea	4.82	4.05	3.64	4.81	4.81	SSA	**2.71**	L	**2.08**
Guinea-Bissau	4.01	3.73	3.37	2.35	2.35	SSA	**2.71**	L	**2.08**
Guyana	9.46	10.31	10.54			LAC	**5.95**	LM	**2.62**
Indonesia	1.63	1.71	1.73	1.78	1.78	EAP	**3.33**	LM	**2.62**
Iran	2.41	2.65	2.61	2.49	2.47	MENA	**2.96**	UM	**6.21**
Iraq	2.23	2.15	1.81	1.58	1.58	MENA	**2.96**	LM	**2.62**
Jordan	2.32	1.61	1.51	1.40	1.37	MENA	**2.96**	LM	**2.62**
Kazakhstan	9.69	9.56	8.02	6.00	6.01	ECA	**9.21**	UM	**6.21**
Kuwait	1.86	2.42	2.03	2.27	2.27	MENA	**2.96**	H	**15.00**
Kyrgyz Republic	4.27	4.05	3.76	3.60	6.49	ECA	**9.21**	L	**2.08**
Lebanon	2.14	1.82	1.94	1.71	1.71	MENA	**2.96**	UM	**6.21**
Libya	16.95	16.88	15.56	16.89	16.89	MENA	**2.96**	UM	**6.21**
Malaysia	2.98	2.96	2.85	3.63	3.63	EAP	**3.33**	UM	**6.21**
Maldives					0.30	SA	**2.64**	LM	**2.62**
Mali	1.55	1.55	1.43	1.58	1.58	SSA	**2.71**	L	**2.08**
Mauritania	3.67	3.35	2.94	3.06	3.61	SSA	**2.71**	L	**2.08**
Morocco	2.40	2.25	2.00	1.89	1.85	MENA	**2.96**	LM	**2.62**
Mozambique	1.99	1.88	1.67			SSA	**2.71**	L	**2.08**
Niger	1.48	1.06	0.92	1.41	1.34	SSA	**2.71**	L	**2.08**
Nigeria	1.25	1.75	1.56	1.37	1.37	SSA	**2.71**	LM	**2.62**
Oman	12.83	14.04	13.65		17.93	MENA	**2.96**	H	**15.00**
Pakistan	1.57	1.75	1.73	1.66	1.59	SA	**2.64**	LM	**2.62**
Palestine				1.40	1.39	MENA	**2.96**	LM	**2.62**
Qatar	2.46	2.30	1.99		7.79	MENA	**2.96**	H	**15.00**
Saudi Arabia	8.58	7.76	7.37	9.58	9.58	MENA	**2.96**	H	**15.00**
Senegal	1.83	1.69	1.47	1.20	1.20	SSA	**2.71**	LM	**2.62**
Sierra Leone	2.77	2.83	2.68	2.21	2.21	SSA	**2.71**	L	**2.08**
Somalia	3.15	3.39	2.99			SSA	**2.71**	L	**2.08**
Sudan	0.38	0.38	0.34			SSA	**2.71**	LM	**2.62**
Suriname	10.20	10.26	9.62	8.61	8.61	LAC	**5.95**	UM	**6.21**
Syria	2.61	2.54	2.53	1.96	1.99	MENA	**2.96**	LM	**2.62**
Tajikistan	5.63	4.79	4.50			ECA	**9.21**	L	**2.08**
Togo	1.88	1.70	1.43			SSA	**2.71**	L	**2.08**
Tunisia	2.46	2.51	1.99	1.92	1.90	MENA	**2.96**	LM	**2.62**
Turkey	6.55	6.23	5.81	6.00	5.92	ECA	**9.21**	UM	**6.21**
Turkmenistan	5.81	5.40	5.33	12.10	12.10	ECA	**9.21**	LM	**2.62**
Uganda				2.47	2.47	SSA	**2.71**	L	**2.08**
United Arab Emirates	2.31	1.96	1.49	0.99	0.91	MENA	**2.96**	H	**15.00**
Uzbekistan	3.53	3.51	3.31			ECA	**9.21**	LM	**2.62**
Yemen	4.15	4.16	3.58	3.39	3.39	MENA	**2.96**	LM	**2.62**
OIC Countries	**2.53**	**2.52**	**2.35**	**2.52**	**2.52**				
Other Developing Countries	**2.74**	**2.64**	**3.02**	**3.54**	**3.19**				
Developed Countries	**15.19**	**15.03**	**15.18**	**14.57**	**15.52**				
World	**4.69**	**4.53**	**4.67**	**5.20**	**5.42**				

* 2005 or later.
Source: World Bank WDI

Appendix 3: Rail Network Land Density, km per 1000 km^2

Country	Value					Average*			
Name	1990	1995	2000	2005	Most* Recent	Geographic Region		Income Level	
Afghanistan						SA	**19.15**	L	**3.37**
Albania	26.79	24.60	16.06	16.31	15.44	ECA	**14.02**	UM	**6.42**
Algeria	1.80	1.80	1.59	1.50	1.50	MENA	**2.63**	UM	**6.42**
Azerbaijan			25.62	25.67	25.40	ECA	**14.02**	UM	**6.42**
Bahrain	0.00	0.00	0.00	0.00	0.00	MENA	**2.63**	H	**17.11**

Name	1990	1995	2000	2005	Most Recent	Geographic Region		Income Level	
Bangladesh	21.09	20.79	21.26	21.93	21.78	SA	**19.15**	L	**3.37**
Benin					6.85	SSA	**3.68**	L	**3.37**
Brunei Darussalam				2.47	2.47	EAP	**4.87**	H	**17.11**
Burkina Faso				2.27	2.27	SSA	**3.68**	L	**3.37**
Cameroon	2.34	2.13	2.13	2.06	2.07	SSA	**3.68**	LM	**7.29**
Chad	0.00	0.00	0.00	0.00	0.00	SSA	**3.68**	L	**3.37**
Comoros	0.00	0.00	0.00	0.00	0.00	SSA	**3.68**	L	**3.37**
Cote d'Ivoire	2.23	2.01	2.01	2.01	2.01	SSA	**3.68**	LM	**7.29**
Djibouti	4.31	4.31	4.31	4.31	4.31	MENA	**2.63**	LM	**7.29**
Egypt	4.77	4.83	5.05	5.17	6.73	MENA	**2.63**	LM	**7.29**
Gabon	2.65	2.65	3.16	3.14	3.14	SSA	**3.68**	UM	**6.42**
Gambia	0.00	0.00	0.00	0.00	0.00	SSA	**3.68**	L	**3.37**
Guinea					4.82	SSA	**3.68**	L	**3.37**
Guinea-Bissau	0.00	0.00	0.00	0.00	0.00	SSA	**3.68**	L	**3.37**
Guyana						LAC	**6.11**	LM	**7.29**
Indonesia	3.56	2.78	2.94		1.86	EAP	**4.87**	LM	**7.29**
Iran	2.98	3.27	4.11	4.38	5.01	MENA	**2.63**	UM	**6.42**
Iraq					4.65	MENA	**2.63**	LM	**7.29**
Jordan	3.31	3.32	3.31	3.32	2.84	MENA	**2.63**	LM	**7.29**
Kazakhstan	5.36	5.01	5.02	5.26	5.56	ECA	**14.02**	UM	**6.42**
Kuwait	0.00	0.00	0.00	0.00	0.00	MENA	**2.63**	H	**17.11**
Kyrgyz Republic					2.17	ECA	**14.02**	L	**3.37**
Lebanon					39.20	MENA	**2.63**	UM	**6.42**
Libya	0.00	0.00	0.00	0.00	0.00	MENA	**2.63**	UM	**6.42**
Malaysia	5.08	5.08	4.94	5.04	5.07	EAP	**4.87**	UM	**6.42**
Maldives	0.00	0.00	0.00	0.00	0.00	SA	**19.15**	LM	**7.29**
Mali	0.53	0.53	0.60	0.60	0.49	SSA	**3.68**	L	**3.37**
Mauritania				0.70	0.71	SSA	**3.68**	L	**3.37**
Morocco	4.24	4.27	4.27	4.27	4.46	MENA	**2.63**	LM	**7.29**
Mozambique				3.90	3.96	SSA	**3.68**	L	**3.37**
Niger	0.00	0.00	0.00	0.00	0.00	SSA	**3.68**	L	**3.37**
Nigeria	3.86	3.91	3.91	3.87	3.87	SSA	**3.68**	LM	**7.29**
Oman	0.00	0.00	0.00	0.00	0.00	MENA	**2.63**	H	**17.11**
Pakistan	11.38	11.38	10.11	10.11	10.11	SA	**19.15**	LM	**7.29**
Palestine						MENA	**2.63**	LM	**7.29**
Qatar	0.00	0.00	0.00	0.00	0.00	MENA	**2.63**	H	**17.11**
Saudi Arabia	0.50	0.51	0.48	0.51	1.38	MENA	**2.63**	H	**17.11**
Senegal	4.71	4.71	4.71	4.71	4.71	SSA	**3.68**	LM	**7.29**
Sierra Leone					1.17	SSA	**3.68**	L	**3.37**
Somalia		0.00	0.00	0.00	0.00	SSA	**3.68**	L	**3.37**
Sudan	2.01	1.93	1.94	2.31	1.93	SSA	**3.68**	LM	**7.29**
Suriname						LAC	**6.11**	UM	**6.42**
Syria	12.99	8.30	9.64	14.72	11.65	MENA	**2.63**	LM	**7.29**
Tajikistan				4.40	4.40	ECA	**14.02**	L	**3.37**
Togo					9.78	SSA	**3.68**	L	**3.37**
Tunisia	14.61	11.97	14.55	12.29	14.28	MENA	**2.63**	LM	**7.29**
Turkey	10.95	11.11	11.27	11.30	11.30	ECA	**14.02**	UM	**6.42**
Turkmenistan				5.38	6.77	ECA	**14.02**	LM	**7.29**
Uganda	6.25	6.34	1.32	1.31	1.31	SSA	**3.68**	L	**3.37**
United Arab Emirates						MENA	**2.63**	H	**17.11**
Uzbekistan			8.57	9.44	9.94	ECA	**14.02**	LM	**7.29**
Yemen	0.00	0.00	0.00	0.00	0.00	MENA	**2.63**	LM	**7.29**
OIC Countries	**3.08**	**2.88**	**3.04**	**3.13**	**3.27**				
Other Developing Countries	**7.25**	**7.09**	**7.11**	**7.88**	**7.69**				
Developed Countries	**17.16**	**28.41**	**19.08**	**21.53**	**17.38**				
World	**8.30**	**8.71**	**8.10**	**9.35**	**9.21**				

* 2005 or later.
Source: World Bank

Appendix 4: Rail Network Population Density, km per 1000 heads

Country									
Name	**1990**	**1995**	**2000**	**2005**	**Most* Recent**	Geographic Region		Income Level	
Afghanistan						SA	**0.05**	L	**0.06**
Albania	0.22	0.22	0.14	0.14	0.13	ECA	**0.43**	UM	**0.30**
Algeria	0.17	0.15	0.12	0.11	0.10	MENA	**0.08**	UM	**0.30**

Name	1990	1995	2000	2005	Most* Recent	Geographic Region		Income Level	
Azerbaijan			0.26	0.25	0.24	ECA	**0.43**	UM	**0.30**
Bahrain	0.00	0.00	0.00	0.00	0.00	MENA	**0.08**	H	**0.53**
Bangladesh	0.02	0.02	0.02	0.02	0.02	SA	**0.05**	L	**0.06**
Benin					0.09	SSA	**0.10**	L	**0.06**
Brunei Darussalam				0.04	0.04	EAP	**0.05**	H	**0.53**
Burkina Faso				0.05	0.04	SSA	**0.10**	L	**0.06**
Cameroon	0.09	0.07	0.06	0.05	0.05	SSA	**0.10**	LM	**0.06**
Chad	0.00	0.00	0.00	0.00	0.00	SSA	**0.10**	L	**0.06**
Comoros	0.00	0.00	0.00	0.00	0.00	SSA	**0.10**	L	**0.06**
Cote d'Ivoire	0.06	0.04	0.04	0.03	0.03	SSA	**0.10**	LM	**0.06**
Djibouti	0.18	0.16	0.14	0.12	0.12	MENA	**0.08**	LM	**0.06**
Egypt	0.08	0.08	0.07	0.07	0.08	MENA	**0.08**	LM	**0.06**
Gabon	0.74	0.63	0.66	0.59	0.56	SSA	**0.10**	UM	**0.30**
Gambia	0.00	0.00	0.00	0.00	0.00	SSA	**0.10**	L	**0.06**
Guinea					0.12	SSA	**0.10**	L	**0.06**
Guinea-Bissau	0.00	0.00	0.00	0.00	0.00	SSA	**0.10**	L	**0.06**
Guyana						LAC	**0.24**	LM	**0.06**
Indonesia	0.04	0.03	0.03		0.01	EAP	**0.05**	LM	**0.06**
Iran	0.09	0.09	0.10	0.10	0.11	MENA	**0.08**	UM	**0.30**
Iraq					0.07	MENA	**0.08**	LM	**0.06**
Jordan	0.09	0.07	0.06	0.05	0.04	MENA	**0.08**	LM	**0.06**
Kazakhstan	0.88	0.86	0.91	0.94	0.96	ECA	**0.43**	UM	**0.30**
Kuwait		0.00	0.00	0.00	0.00	MENA	**0.08**	H	**0.53**
Kyrgyz Republic					0.08	ECA	**0.43**	L	**0.06**
Lebanon					0.10	MENA	**0.08**	UM	**0.30**
Libya	0.00	0.00	0.00	0.00	0.00	MENA	**0.08**	UM	**0.30**
Malaysia	0.09	0.08	0.07	0.06	0.06	EAP	**0.05**	UM	**0.30**
Maldives	0.00	0.00	0.00	0.00	0.00	SA	**0.05**	LM	**0.06**
Mali	0.07	0.07	0.07	0.06	0.05	SSA	**0.10**	L	**0.06**
Mauritania				0.24	0.23	SSA	**0.10**	L	**0.06**
Morocco	0.08	0.07	0.07	0.06	0.06	MENA	**0.08**	LM	**0.06**
Mozambique				0.15	0.14	SSA	**0.10**	L	**0.06**
Niger	0.00	0.00	0.00	0.00	0.00	SSA	**0.10**	L	**0.06**
Nigeria	0.04	0.03	0.03	0.03	0.02	SSA	**0.10**	LM	**0.06**
Oman	0.00	0.00	0.00	0.00	0.00	MENA	**0.08**	H	**0.53**
Pakistan	0.08	0.07	0.06	0.05	0.05	SA	**0.05**	LM	**0.06**
Palestine						MENA	**0.08**	LM	**0.06**
Qatar	0.00	0.00	0.00	0.00	0.00	MENA	**0.08**	H	**0.53**
Saudi Arabia	0.06	0.06	0.05	0.04	0.11	MENA	**0.08**	H	**0.53**
Senegal	0.12	0.10	0.09	0.08	0.07	SSA	**0.10**	LM	**0.06**
Sierra Leone					0.02	SSA	**0.10**	L	**0.06**
Somalia	0.00	0.00	0.00	0.00	0.00	SSA	**0.10**	L	**0.06**
Sudan	0.18	0.15	0.13	0.14	0.11	SSA	**0.10**	LM	**0.06**
Suriname						LAC	**0.24**	UM	**0.30**
Syria	0.19	0.10	0.11	0.14	0.10	MENA	**0.08**	LM	**0.06**
Tajikistan				0.09	0.09	ECA	**0.43**	L	**0.06**
Togo					0.08	SSA	**0.10**	L	**0.06**
Tunisia	0.28	0.21	0.24	0.19	0.21	MENA	**0.08**	LM	**0.06**
Turkey	0.15	0.14	0.13	0.12	0.12	ECA	**0.43**	UM	**0.30**
Turkmenistan				0.52	0.63	ECA	**0.43**	LM	**0.06**
Uganda	0.07	0.06	0.01	0.01	0.01	SSA	**0.10**	L	**0.06**
United Arab Emirates						MENA	**0.08**	H	**0.53**
Uzbekistan			0.15	0.15	0.15	ECA	**0.43**	LM	**0.06**
Yemen		0.00	0.00	0.00	0.00	MENA	**0.08**	LM	**0.06**
OIC Countries	**0.09**	**0.07**	**0.07**	**0.08**	**0.07**				
Other Developing Countries	**0.14**	**0.13**	**0.11**	**0.12**	**0.12**				
Developed Countries	**0.50**	**0.45**	**0.45**	**0.52**	**0.54**				
World	**0.19**	**0.19**	**0.16**	**0.18**	**0.17**				

* 2005 and later.
Source: World Bank WDI

Appendix 5: Air Network Density (Departures), departures per 1000 heads

Country						Average*			
Name	1990	1995	2000	2005	Most* Recent	Geographic Region		Income Level	

Name	1990	1995	2000	2005	Most*	Geographic		Income	
Afghanistan	0.29	0.35	0.14			SA	0.43	L	0.30
Albania		0.19	1.27	1.39	1.44	ECA	7.21	UM	3.18
Algeria	1.74	1.66	1.32	1.39	0.90	MENA	1.46	UM	3.18
Azerbaijan		2.55	1.00	1.49	1.38	ECA	7.21	UM	3.18
Bahrain	22.11	23.20	32.77	44.65	44.65	MENA	1.46	H	17.57
Bangladesh	0.11	0.10	0.04	0.05	0.07	SA	0.43	L	0.30
Benin	0.10	0.23	0.23	0.09	0.09	SSA	0.45	L	0.30
Brunei Darussalam	17.12	40.01	38.20	31.91	32.80	EAP	2.00	H	17.57
Burkina Faso	0.25	0.31	0.29	0.11	0.09	SSA	0.45	L	0.30
Cameroon	0.58	0.27	0.35	0.60	0.50	SSA	0.45	LM	0.74
Chad	0.20	0.28	0.18	0.07	0.07	SSA	0.45	L	0.30
Comoros	2.30	2.26	2.04			SSA	0.45	L	0.30
Cote d'Ivoire	0.43	0.29	0.14	0.04	0.04	SSA	0.45	LM	0.74
Djibouti	6.96	6.25				MENA	1.46	LM	0.74
Egypt	0.34	0.61	0.68	0.58	0.71	MENA	1.46	LM	0.74
Gabon	11.23	11.07	6.04	6.21	3.90	SSA	0.45	UM	3.18
Gambia						SSA	0.45	L	0.30
Guinea	0.18	0.09	0.07			SSA	0.45	L	0.30
Guinea-Bissau	1.17	1.03	0.92			SSA	0.45	L	0.30
Guyana	5.07	4.61	0.55	0.36	0.36	LAC	2.96	LM	0.74
Indonesia	1.16	1.37	0.77	1.46	1.52	EAP	2.00	LM	0.74
Iran	0.73	0.82	1.29	1.75	1.70	MENA	1.46	UM	3.18
Iraq	0.41	0.01				MENA	1.46	LM	0.74
Jordan	4.45	4.00	3.43	3.64	5.30	MENA	1.46	LM	0.74
Kazakhstan		1.32	0.54	1.14	1.23	ECA	7.21	UM	3.18
Kuwait	4.71	9.93	7.98	7.55	7.95	MENA	1.46	H	17.57
Kyrgyz Republic		2.53	1.23	1.02	0.68	ECA	7.21	L	0.30
Lebanon	3.46	3.12	2.77	2.94	2.73	MENA	1.46	UM	3.18
Libya	4.17	1.20	1.16	2.25	1.58	MENA	1.46	UM	3.18
Malaysia	7.21	8.65	7.27	6.87	6.54	EAP	2.00	UM	3.18
Maldives	3.71	16.14	21.93	15.46	17.23	SA	0.43	LM	0.74
Mali	0.01	0.14	0.14	0.06	0.06	SSA	0.45	L	0.30
Mauritania	1.81	2.03	1.44	0.58	0.36	SSA	0.45	L	0.30
Morocco	1.09	1.21	1.55	1.60	1.94	MENA	1.46	LM	0.74
Mozambique	0.41	0.20	0.37	0.47	0.49	SSA	0.45	L	0.30
Niger	0.06	0.14	0.14	0.05	0.05	SSA	0.45	L	0.30
Nigeria	0.18	0.06	0.10	0.07	0.12	SSA	0.45	LM	0.74
Oman	6.67	7.23	9.29	12.17	12.17	MENA	1.46	H	17.57
Pakistan	0.61	0.57	0.46	0.31	0.31	SA	0.43	LM	0.74
Palestine						MENA	1.46	LM	0.74
Qatar	23.32	25.49	43.21	51.91	53.29	MENA	1.46	H	17.57
Saudi Arabia	5.70	5.37	5.28	5.03	5.98	MENA	1.46	H	17.57
Senegal	0.46	0.52	0.24	0.57	0.57	SSA	0.45	LM	0.74
Sierra Leone	0.12	0.05	0.05	0.03	0.03	SSA	0.45	L	0.30
Somalia	0.24	0.14				SSA	0.45	L	0.30
Sudan	0.34	0.30	0.22	0.22	0.17	SSA	0.45	LM	0.74
Suriname	5.16	5.97	4.64	9.71	9.51	LAC	2.96	UM	3.18
Syria	0.88	0.61	0.85	0.88	0.92	MENA	1.46	LM	0.74
Tajikistan		0.61	0.64	1.07	1.20	ECA	7.21	L	0.30
Togo	0.13	0.29	0.29	0.12	0.12	SSA	0.45	L	0.30
Tunisia	1.58	1.66	2.08	2.12	2.14	MENA	1.46	LM	0.74
Turkey	0.79	1.28	1.80	2.05	2.91	ECA	7.21	UM	3.18
Turkmenistan		2.99	4.86	2.91	3.11	ECA	7.21	LM	0.74
Uganda	0.11	0.04	0.01	0.01	0.01	SSA	0.45	L	0.30
United Arab Emirates	10.07	14.07	14.93	21.33	21.33	MENA	1.46	H	17.57
Uzbekistan		0.71	1.22	0.85	0.82	ECA	7.21	LM	0.74
Yemen	1.15	0.32	0.80	0.82	0.63	MENA	1.46	LM	0.74
OIC Countries	**0.94**	**1.03**	**0.97**	**1.15**	**1.21**				
Other Developing Countries	**0.72**	**0.97**	**1.03**	**1.24**	**1.49**				
Developed Countries	**13.32**	**14.84**	**18.15**	**18.93**	**18.35**				
World	**2.98**	**3.26**	**3.75**	**3.97**	**4.02**				

* 2005 or later.
^ Domestic takeoffs and takeoffs abroad of air carriers registered in the country.
Source: World Bank WDI

Appendix 6: Air Network Density (Passengers), departures per 1000 heads

Country						Average*	
Name	1990	1995	2000	2005	Most*	Geographic	Income

Country					Recent	Region		Level	
Afghanistan	13	12	6			SA	37	L	15
Albania		4	45	63	68	ECA	612	UM	246
Algeria	148	123	98	92	84	MENA	146	UM	246
Azerbaijan		150	68	135	87	ECA	612	UM	246
Bahrain	1564	1857	2127			MENA	146	H	1298
Bangladesh	9	10	9	11	8	SA	37	L	15
Benin	16	13	12			SSA	34	L	15
Brunei Darussalam	1195	3106	2590	2641	2759	EAP	224	H	1298
Burkina Faso	15	14	12	5	5	SSA	34	L	15
Cameroon	23	25	17	22	25	SSA	34	LM	94
Chad	15	13	9			SSA	34	L	15
Comoros	60	56				SSA	34	L	15
Cote d'Ivoire	16	12	6			SSA	34	LM	94
Djibouti	233					MENA	146	LM	94
Egypt	56	61	64	63	82	MENA	146	LM	94
Gabon	430	469	362	340	377	SSA	34	UM	246
Gambia						SSA	34	L	15
Guinea	7	5				SSA	34	L	15
Guinea-Bissau	20	18				SSA	34	L	15
Guyana	194	160	97			LAC	223	LM	94
Indonesia	52	83	48	122	131	EAP	224	LM	94
Iran	104	107	136	184	167	MENA	146	UM	246
Iraq	37					MENA	146	LM	94
Jordan	304	303	267	321	405	MENA	146	LM	94
Kazakhstan		71	31	77	81	ECA	612	UM	246
Kuwait	454	1083	965	960	1011	MENA	146	H	1298
Kyrgyz Republic		96	49	44	39	ECA	612	L	15
Lebanon	192	221	214	264	235	MENA	146	UM	246
Libya	413	129	112		193	MENA	146	UM	246
Malaysia	566	749	712	795	830	EAP	224	UM	246
Maldives	44	640	1157	280	315	SA	37	LM	94
Mali		8	7			SSA	34	L	15
Mauritania	112	100	71	46	48	SSA	34	L	15
Morocco	64	80	127	115	156	MENA	146	LM	94
Mozambique	21	11	14	17	21	SSA	34	L	15
Niger	10	8	7			SSA	34	L	15
Nigeria	10	5	4	5	10	SSA	34	LM	94
Oman	463	669	882			MENA	146	H	1298
Pakistan	48	44	38	34	34	SA	37	LM	94
Palestine						MENA	146	LM	94
Qatar	1649	2040	4333	6823	7067	MENA	146	H	1298
Saudi Arabia	634	631	609	689	674	MENA	146	H	1298
Senegal	20	17	10	40	46	SSA	34	LM	94
Sierra Leone	7	4	4	3	4	SSA	34	L	15
Somalia	13					SSA	34	L	15
Sudan	17	16	12	13	15	SSA	34	LM	94
Suriname	326	371	498	631	640	LAC	223	UM	246
Syria	48	39	45	65	66	MENA	146	LM	94
Tajikistan		142	27	73	100	ECA	612	L	15
Togo	19	17	15			SSA	34	L	15
Tunisia	161	158	199	199	203	MENA	146	LM	94
Turkey	77	127	183	238	345	ECA	612	UM	246
Turkmenistan		179	285	341	361	ECA	612	LM	94
Uganda	7	5	2	2	2	SSA	34	L	15
United Arab Emirates	903	1460	2129			MENA	146	H	1298
Uzbekistan		97	71	63	74	ECA	612	LM	94
Yemen	55	24	46	52	46	MENA	146	LM	94
OIC Countries	**72**	**86**	**86**	**108**	**118**				
Other Developing Countries	**42**	**60**	**68**	**98**	**128**				
Developed Countries	**963**	**1107**	**1405**	**1527**	**1558**				
World	**210**	**236**	**285**	**323**	**346**				

* 2005 or later.

^ Includes both domestic and international aircraft passengers of air carriers registered in the country.

Source: World Bank WDI

Appendix 7: Maritime Fleet Capacity Density, tonne per 1000 heads

Country		Average*

Name	1990	1995	2000	2005	Most* Recent	Geographic Region		Income Level	
Afghanistan	LL	LL	LL	LL	LL	SA	5	L	89
Albania	19	26	7	34	31	ECA	177	UM	254
Algeria	38	39	36	28	22	MENA	105	UM	254
Azerbaijan		62	63	66	75	ECA	177	UM	254
Bahrain	132	421	569	522	775	MENA	105	H	307
Bangladesh	5	4	4	4	6	SA	5	L	89
Benin	1	0	0		0	SSA	84	L	89
Brunei Darussalam	1346	1196	1048	1143	1123	EAP	95	H	307
Burkina Faso	LL	LL	LL	LL	LL	SSA	84	L	89
Cameroon	3	3	0	20	0	SSA	84	LM	26
Chad	LL	LL	LL	LL	LL	SSA	84	L	89
Comoros	7	6	2	939	1839	SSA	84	L	89
Cote d'Ivoire	8	5	0	0	0	SSA	84	LM	26
Djibouti		8	7	6	1	MENA	105	LM	26
Egypt	31	30	30	21	18	MENA	105	LM	26
Gabon	31	34	9	6	6	SSA	84	UM	254
Gambia	2	3	1	8	7	SSA	84	L	89
Guinea	0	0	1	1	1	SSA	84	L	89
Guinea-Bissau	2	2	2	1	1	SSA	84	L	89
Guyana	15	18	17	43	55	LAC	469	LM	26
Indonesia				23	46	EAP	95	LM	26
Iran	160	116	95	132	18	MENA	105	UM	254
Iraq	96	72	33	7	6	MENA	105	LM	26
Jordan	15	27	12	39	62	MENA	105	LM	26
Kazakhstan		0	0	1	6	ECA	177	UM	254
Kuwait	1359	1796	1774	1503	1380	MENA	105	H	307
Kyrgyz Republic	LL	LL	LL	LL	LL	ECA	177	L	89
Lebanon	199	117	128	58	38	MENA	105	UM	254
Libya	335	252	125	17	219	MENA	105	UM	254
Malaysia	131	201	326	340	372	EAP	95	UM	254
Maldives	687	431	488	359	606	SA	5	LM	26
Mali	LL	LL	LL	LL	LL	SSA	84	L	89
Mauritania	11	9	9	8	7	SSA	84	L	89
Morocco	24	15	13	13	10	MENA	105	LM	26
Mozambique	2	2	1	1	2	SSA	84	L	89
Niger	LL	LL	LL	LL	LL	SSA	84	L	89
Nigeria	8	6	5	5	6	SSA	84	LM	26
Oman	7	5	5	3	5	MENA	105	H	307
Pakistan	5	5	3	3	3	SA	5	LM	26
Palestine						MENA	105	LM	26
Qatar	982	1742	1871	896	967	MENA	105	H	307
Saudi Arabia	217	70	70	112	91	MENA	105	H	307
Senegal	5	3	2	2	2	SSA	84	LM	26
Sierra Leone	3	4	3	6	139	SSA	84	L	89
Somalia	2	3	1	1	1	SSA	84	L	89
Sudan	5	2	2	0	1	SSA	84	LM	26
Suriname	37	22	15	12	11	LAC	469	UM	254
Syria	8	30	41	34	16	MENA	105	LM	26
Tajikistan	LL	LL	LL	LL	LL	ECA	177	L	89
Togo	17	0	14	2	37	SSA	84	L	89
Tunisia	55	20	18	13	9	MENA	105	LM	26
Turkey	98	149	153	99	105	ECA	177	UM	254
Turkmenistan		4	8	7	12	ECA	177	LM	26
Uganda	LL	LL	LL	LL	LL	SSA	84	L	89
United Arab Emirates	705	659	322	241	307	MENA	105	H	307
Uzbekistan	LL	LL	LL	LL	LL	ECA	177	LM	26
Yemen	1	2	1		1	MENA	105	LM	26
OIC Countries	**46**	**43**	**42**	**37**	**53**				
Other Developing Countries	**93**	**103**	**111**	**126**	**175**				
Developed Countries	**316**	**346**	**359**	**382**	**497**				
World	**130**	**137**	**143**	**152**	**199**				

* 2005 or later   LL: Landlocked
^ Deadweight is the weight measure of a vessel's carrying capacity.
Source: UNCTAD and World Bank