



CCO BRIEF
ON
TRANSPORT &
COMMUNICATIONS
COOPERATION

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I. Introduction

Well-functioning, effective, and sustainable transport systems are one of the most important necessities for modern economic and social life. The conditions within which the transport networks operate and the quality of the transport services affect a range of economic activities from agricultural and industrial production to investments, and from tourism to trade. Transport is also essential for accessing basic public services such as health and education. Therefore, it has a direct impact on the development of countries.

The increased per capita income and mobility needs of households, trade globalization, deregulation and privatization trends in transportation infrastructure and services, and the technological progress in vehicle technology have all contributed to the high growth rate of the transportation industry.

International Transport Forum (ITF) estimates that the trade related international freight will grow by a factor of 4.3 by 2050. Maritime transport is more characterized by movement of freights as almost 85% of global trade is carried by sea in terms of weight. Therefore, increasing international trade will result in unprecedented challenges for the transport infrastructure, especially for ports. According to ITF projections, port volumes are expected to increase by nearly fourfold by 2050 (OECD/ITF, 2015). In fact, Infrastructure to 2030 (OECD, 2012) argues that worldwide container throughput could quadruple even by 2030.

With regard to the surface transport, worldwide road and rail passenger travel is expected to increase by around 120% to 230% until 2050, whereas this growth is expected to range from 240% to 450% for non-OECD economies. Besides, the global road and rail freight transport is projected to increase by 230% to 420% (OECD/ITF, 2015).

Infrastructure to 2030 concludes that global transport and distribution infrastructure investment needs, i.e., airports, ports, rail, and oil and gas, may exceed USD 11 trillion over the 2009-2030 period. As major infrastructure can take around 10 to 20 years to plan and implement, countries that want to develop their infrastructure at the right time and location will need to get two crucial things right, i.e., national policy frameworks and assured funding (OECD, 2012).

Transport infrastructure is crucial for both economic and social development of nations and “quality infrastructure is a key pillar of international competitiveness” (OECD, 2012). It is therefore not surprising to see that developing transport infrastructure is assessed as a powerful instrument for a wide variety of policy goals such as reducing logistics costs, poverty (through enhancing rural road infrastructure) and congestion, and enabling the mobility of the workforce, etc.

The problems associated with the transport infrastructure vary across nations. For developed nations, for example, the major transportation problem is to sustain the aging infrastructure in the most cost-effective way and to maintain their competitive power through efficient transport networks. For least developed nations, the major concern is to establish a transportation infrastructure by meeting at least the basic needs.

The variation in the needs of transportation infrastructure across the OIC countries is in parallel with the situation outlined above. On one hand, there is a group of oil producing gulf countries with high income per capita and relatively smaller areas (except Saudi Arabia). On the other hand, there is a large pool of OIC countries with low income per capita and relatively larger areas, mostly from Sub-

Saharan Africa. The Global Competitiveness Report 2015–2016 (WEF, 2015) of the World Economic Forum provides evidence on this gap. Five of the seven best performing OIC countries (i.e. UAE, Malaysia, Qatar, Bahrain, Saudi Arabia, Turkey, and Oman), in terms of quality of transport infrastructure, are oil producing gulf countries. Furthermore, seven out of eight of the worst performing OIC countries (i.e. Guinea, Lebanon, Sierra Leone, Mauritania, Chad, Nigeria, Benin, and Mozambique), in the same area, are from Sub-Saharan Africa.

Table 1 presents the variation in the quality of transport infrastructure in terms of indexes among the 37 OIC countries (i.e. 13 countries from OIC-Sub-Saharan Africa, 15 from OIC-MENA, and 9 from OIC-Asia). The indexes range from 1 to 7, where 1 represents the extremely underdeveloped infrastructure and 7 stands for extensive and efficient infrastructure by international standards.

One implication of Table 1 is that all of the averages of the OIC and OIC-Sub-Saharan Africa fall below world averages in every measure. Secondly, OIC-MENA performs better than world average in every measure, except the quality of railroad infrastructure. Finally, OIC-Asia performs less than world averages in every measure except for the quality of railroad infrastructure.

Table 1: The indexes for the quality of transport infrastructure

Region	Quality of overall infrastructure	Quality of roads	Quality of railroad infrastructure	Quality of port infrastructure	Quality of air transport infrastructure
World Average	4.13	4.03	3.32	4.03	4.36
OIC Average	3.77	3.75	2.72	3.78	4.03
OIC-Sub Saharan Africa	2.98	3.05	2.02	3.19	3.23
OIC-MENA	4.35	4.43	2.84	4.47	4.66
OIC-Asia	3.93	3.61	3.48	3.48	4.14
OIC Maximum	6.4 (U.A.E.)	6.6 (U.A.E.)	5.1 (Malaysia)	6.4 (U.A.E.)	6.7 (U.A.E.)
OIC Minimum	2.0 (Guinea)	1.9 (Guinea)	1.3 (Albania)	1.3 (Chad)	2.4 (Sierra Leone)

Source: Author from the Global Competitiveness Report 2015–2016 (WEF, 2015)

Being aware of the significance of transport infrastructure and its effects on the well-being of nations, COMCEC Transport and Communications Working Group planned its seventh meeting to specifically dwell upon road maintenance in the OIC Member States and its importance in the global trade volume and social well-being of the population.

II. Global Trends in Road Maintenance

Modern transportation systems increasingly rely on roads and road transportation. Roads provide the foundation for economic activities and make substantial contributions to national GDP. Over the last

fifty years, growth in road transport has accounted for virtually all of the growth in landbased transport modes¹.

According to International Transport Forum (OECD), road transport accounts for 83% of all surface passenger transport. Road transport is a foundation for economic activity. PIARC (World Road Association) suggests that based purely on the value added by commercial transport services, road transport typically lies between 3% and 5% of GDP. However, with other considerations, such as inputs of fuel and transport equipment and infrastructure, the contribution of transport to GDP is more realistically between 10% and 20%.

Global road additions continue to grow at a rapid pace. According to the International Energy Agency, global expenditures on road construction have continued to increase in recent years, accounting for nearly 50% of total spending. Road travel might almost double between now and 2050. Global roads are likely to grow by nearly 25 million paved lane-km by 2050, demanding almost USD 80 trillion in cumulative investment².

Due to their extended and prevalent role, roads have large impacts on the economy, safety, the environment, social welfare, etc. To sustain the quality of their services, road systems need to be adequately maintained in all of their components (pavements, bridges, signals, tunnels, lightning systems, etc.) and this requires large sums of mostly public fund.

Road improvements bring immediate and sometimes dramatic benefits to road users through improved access to hospitals, schools, and markets; improved comfort, speed, and safety; and lower vehicle operating costs. For these benefits to be sustained, road improvements must be followed by a well-planned program of maintenance. Without regular maintenance, roads can rapidly fall into disrepair, preventing realization of the longer-term impacts of road improvements on development³.

As road system age, as their vulnerability to the effects of climate change increases, and as their relevance for each nation's well-being augments over time, there is a greater need for road maintenance. Consequently, the share of road maintenance expenditures in national road budgets should increase over time and should be spent wisely, effectively and transparently to obtain the most value out of it.

Road authorities must ensure that the funds allocated to maintenance programs are spent effectively to save future investment costs and to obtain maximum value from these investments. For this purpose, modern road asset-management approach and institutional strengthening of road authorities are becoming increasingly necessary.

Postponing road maintenance results in high direct and indirect costs. If road defects are repaired promptly, the cost is usually modest. If defects are neglected, an entire road section may fail completely, requiring full reconstruction at three times or more the cost, on average, of maintenance costs. Delayed maintenance has indirect costs as well. Neglected roads steadily become more difficult to use, resulting in increased vehicle operating costs and a reluctance by transport operators to use the roads. This imposes a heavy burden on the economy: as passenger and freight services are curtailed, there is a consequent loss of economic and social development opportunities.

¹ OECD, Competition Issues in Road Transport, p:9

² Global transport infrastructure outlook to 2050, Alex KOERNER, John DULAC International Energy Agency, OECD/IEA 2012

³ Burningham, Sally and Stankevich, Natalya; Why road maintenance is important and how to get it done? , p:1, The World Bank

The purpose of maintenance is to ensure that the road remains serviceable during its lifetime. Maintenance is important because it:

- Prolongs the life of a road by countering the effects of deterioration and thus preserves the value of the previous investments and the road asset.
- Reduces Vehicle Operating Costs (VOC) by providing a smooth running surface.
- Preserves the benefits provided by the original roads by providing reliable access and travel times for people to access healthcare, employment and educational opportunities.

Governments should be interested in preserving the value of their road assets. However, in practice, the responsible agencies have little incentive to undertake preventive maintenance activities. According to the World Bank (1988), failure to maintain roads is tantamount to an act of disinvestment, for it implies the sacrifice of past investment in roads. Additionally, the World Bank (1988) claims that, in 20 years' time, an estimated \$45 billion worth of road infrastructure was lost owing to poor maintenance in the 85 countries that were included in the study. This loss could have been averted by spending \$12 billion on preventive maintenance⁴.

Poor maintenance practices impose the following costs on national economies⁵:

1. Destruction of the value of road assets and its corresponding impact on government accounts and higher costs for road rehabilitation in the future;
2. Higher vehicle operating costs, fuel costs, and reduced road safety;
3. Reduced access resulting in poorer healthcare and fewer employment and educational opportunities.

Given the straightforward economic case for undertaking preventive maintenance, and the importance of doing so, it is worth recounting the reasons for why preventive maintenance is not undertaken as widely and regularly as one would expect it to happen.

There are essentially three factors that are responsible for the poor maintenance of road networks, namely⁶:

1. The structure and nature of organisations responsible for road maintenance;
2. Lack of pressure for better roads;
3. Inadequate and unreliable funding.

In the past decades, the focus has been on expanding road networks rather than on maintenance. The fact that larger road networks would, in the future, require funds for their maintenance was, till recently, largely ignored; the question of whether the resources needed for maintaining these road networks were available or not was deferred to be answered at some future point in time.

International experience suggests that proper maintenance requires:

- Thorough planning and programming of maintenance works;
- Availability of good data to support the setting of priorities;
- An independent, secure, and stable source of funding;
- Appropriate institutional and management structures;

⁴ World Bank (1988) Road Deterioration in Developing Countries: Causes and Remedies, A World Bank Policy Study

⁵ Enhancing Road Maintenance in the OIC Member Countries, COMCEC Coordination Office, 2016

⁶ Ibid

- Monitoring of results of maintenance, and availability of appropriate human resources.

- **Road Maintenance in the OIC Member Countries**

Investing in maintenance at the right time saves significant future costs. Analyses typically establish that the annual cost of maintaining a road is only a small fraction of the initial investment cost, usually some 2-3% for paved roads and 5-6% for unpaved rural roads⁷. A study by the World Bank has shown that delayed expenditure on road maintenance in Africa increases the total vehicle operating cost by between 2 and 3 times the savings in maintenance costs.

Different socio-economic indicators and road networks in OIC countries follow very different maintenance regimes and practices; hence, there is a wide range of variation in the state of repair of road networks in the OIC Member Countries (See Table 2). The share of road networks that are paved in the OIC countries as a whole is about 53%, while the share of road networks in the US and the EU is 66% and 83%, respectively. The average expenditure on road networks in the OIC is 1,043 million dollars, while average maintenance expenditure is 123 million dollars. Turkey has the highest maintenance expenditure at 797 million dollars, whereas the Gambia has the lowest at 13 million dollars⁸.

Table 2: Socio-economic and Road Network Indicators of OIC Member Countries

Indicator	Min	Max	Average	Min	Max
Population	345,023	249,865,631	28,922,429	Maldives	Indonesia
GNI per capita (\$)	400	86,790	5,676	Niger	Qatar
Surface (Km ²)	300	2,724,900	558,830	Maldives	Kazakhstan
Motorways (Km)	0	3,891	590	Albania	Saudi Arabia
Highways, main or national roads (Km)	0	38,570	11,534	Suriname	Indonesia
Secondary or regional roads (Km)	0	113,451	21,505	Togo	Egypt
Other roads (Km)	0	415,788	69,807	Suriname	Indonesia
Total length of roads (Km)	88	508,000	68,227	Maldives	Indonesia
Paved roads (%)	1	100	52	Chad	Jordan
Paved roads (Km)	88	355,220	35,740	Maldives	Turkey
Non-paved roads (Km)	0	220,074	31,423	Jordan	Indonesia
Length of roads by GDP per capita (Km/\$)	0.03	300	49	Maldives	Uganda
Density of roads (Km/Km ²)	0.005	5.6	0.32	Sudan	Bahrain
Traffic volume (Mio Veh-Km)	74	115,752	30,779	Gambia	Mozambique
Inland freight transport (Mio T-Km)	5	344,779	105,023	Mali	Kazakhstan
Inland passenger transport (Mio P-Km)	16	343,384	128,758	Gambia	Pakistan

⁷ Ibid

⁸ Ibid

Road freight transport (Mio T-Km)	4	224,048	63,737	Mali	Turkey
Road passenger transport (Mio P-Km)	16	322,765	122,394	Gambia	Pakistan
Persons Killed / 100,000 population	1	37	10	Burkina Faso	Lybia
Persons Injured /100,000 population	1	384	99	Bangladesh	Iran
Injury accidents /100,000 population	1	316	80	Bangladesh	Iran
Injury accidents / 100 million Veh-Km	13	1,693	471	Azerbaijan	Kazakhstan
Central Government expenditures (Mio USD)	1	6,582	756	Sierra Leone	Turkey
Regional/Local Government expenditures (Mio USD)	46	185	116	Tunisia	Morocco
Private sector expenditures (Mio USD)	135	135	135	Azerbaijan	Azerbaijan
Total expenditures (Mio USD)	1	6,582	959	Sierra Leone	Turkey
Investment expenditures (Mio USD)	1	5,785	623	Malaysia	Turkey
Maintenance expenditures (Mio USD)	0.13	797	130	Gambia	Turkey
Other expenditures (Mio USD)	0.02	66	17	Egypt	Saudi Arabia
Road Indirect Revenues: Fuel Tax (Mio USD)	1	178	83	Egypt	Kazakhstan
Road Direct Revenues: Toll (Mio USD)	2	450	131	Guyana	Turkey
Others Road Revenues (Mio USD)	0	101	50	Guyana	Mozambique
Total Revenues (Mio USD)	48	450	218	Guyana	Turkey

Source: Enhancing Road Maintenance in the OIC Member Countries, COMCEC

Furthermore, in most OIC countries, the proportion of road networks is made up of secondary, regional or other roads. However, on comparing the composition of road networks in the OIC countries as a group to the road networks in the United States, and the European Union as a whole, it is worth noting the existence of a big difference in the composition of road networks in these three categories. It is striking to see that a large percentage of the total road networks in OIC countries is motorways and highways⁹.

The OIC Member States, as a group, are investing more in developing motorways and highways and not investing in developing their secondary, regional and other roads. This focus on developing high-quality and high-volume roads requires large amounts of capital. Given the limited resources that are available in many OIC Member States, it is very likely that this focus results in insufficient resources being allocated to maintenance activities¹⁰.

The share of paved road networks in the OIC countries as a whole is about 53%. The share of paved road networks in the US and EU is 66% and 83%, respectively. When taken together with the previous observation that a large proportion of the road networks in the OIC countries consists of motorways, highways, national or main roads, it can be noted that OIC countries tend to focus much more on motorways, highways, national and main roads than on the other road types. As was noted earlier, the road networks in the OIC Member States seem to be unbalanced in terms of their focus on developing

⁹ Ibid

¹⁰ Ibid

high-quality, high-volume roads. This, in turn, is likely to deprive maintenance activities of the resources they need¹¹.

Important deficiencies related to the road sector and maintenance practices in the OIC Member States are as followings¹²;

- There is a lack of reliable and consistent data to support planning and programming.
- The road network in most OIC countries is not in a very good condition.
- Institutional development and practices in the road maintenance sector in OIC Member States are lagging behind international best practices.
- Governance, transparency of operation and public accountability of road maintenance organisations is in need of improvement.
- Capabilities of the construction sector in many OIC Member States need to be upgraded.
- The financing available for maintenance is inadequate.
- The maintenance needs of rural road networks, in particular, need to be given more attention than what they currently receive during the process of planning a budget.

II. Transport Cooperation under the COMCEC

Improving the functioning, effectiveness and sustainability of transport and communications in the Member States is the strategic objective of the COMCEC Strategy in the field of transport and communications. In order to achieve this objective, and given the importance of an efficient and effective road maintenance system for ensuring sustainable road transport in the member states, one of the meetings of the COMCEC Transport and Communications Working Group has been devoted to the road maintenance issue. Enhancing cooperation among the Member Countries on this theme will also contribute to the realization of one of the important output areas of the COMCEC Strategy, which is “transport infrastructure policies”.

• Seventh Meeting of the Transport and Communications Working Group

Since the 31st Session of the COMCEC, the Transport and Communications Working Group held its Seventh Meeting on 24 March 2016 in Ankara, Turkey with the theme of “Enhancing Road Maintenance in the OIC Member Countries”. The Meeting has considered two Studies namely "Enhancing Road Maintenance in the OIC Member Countries", commissioned by the CCO, and “COMCEC Transport Outlook 2015”, prepared by the CCO. During the meeting, the representatives of the Member States have shared their experiences, achievements and challenges in the field of road maintenance in their respective countries. Additionally, the issue of policies that can be implemented to enhance the quality of services provided in this field was discussed. The discussions were also enriched by presentations from the Member States and international organizations.

As the main output of the meeting, some important political recommendations were underscored as follows;

- Developing a National Road Maintenance Strategy Based on Evidence and Data.
- Ensuring the Allocation of Adequate and Stable Funding for Road Maintenance and Increasing Effective Utilization of Available Road Funds through a Sound Legal Framework and Institutional Structure.

¹¹ Ibid

¹² Ibid

- Making Use of Performance-Based Contracts in Road Maintenance.
- Establishing a Road Database Management System.

The Working Group will hold its eighth meeting in Ankara, on 27 October 2016 under the theme of “Improving Road Safety in OIC Member Countries”.

COMCEC Project Funding Mechanism

The second implementation instrument brought by the COMCEC Strategy is the Project Funding Mechanism. Through this Mechanism, the COMCEC Coordination Office provides grants to the selected projects proposed by the Member States that have already registered to the Transport and Communications Working Group. In 2015, the Republic of Turkey, together with its six project partners, implemented the project entitled “Measuring and Benchmarking of PMPI (Passenger Movement Performance Index) among the OIC countries”.

The third Project Call under the COMCEC Project Funding was made in September 2015 and 1 project in the field of transport and communications was found eligible for funding. In this respect, the Republic of Turkey and its project partners will implement the project entitled “Assessment and Enhancement of Air Cargo Interconnectivity among the OIC Member States: the Air Cargo Co-modality Approach (ACCMA) to Facilitate Intra-OIC Trade” The implementation period of this project has started on 30 March 2016.

The fourth project call will be made in September 2016.

