



TRANSPORT AND COMMUNICATIONS

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COMCEC

# CCO BRIEF ON TRANSPORT and COMMUNICATIONS COOPERATION

COMCEC COORDINATION OFFICE

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## BRIEF ON TRANSPORT AND COMMUNICATIONS COOPERATION

### I. Introduction and Global Trends

Transportation and communications are key sectors for the development of countries. Transportation industry is growing fastly due to the increasing per capita income and mobility needs of the households, trade globalization, deregulation and privatization in transportation infrastructure and services, as well as the technological progress.

Transport infrastructure is crucial for both economic and social development of the nations and “quality infrastructure is a key pillar of international competitiveness<sup>1</sup>. According to 'Infrastructure to 2030' report, global transport and distribution infrastructure investment needs may exceed USD 11 trillion over 2009-2030 period. In order to effectively plan and implement 10 to 20 years transport infrastructure at the right time and location, countries need to have sound national policy frameworks and ensured funding.

Furthermore, International Transport Forum (ITF) estimates that with regard to the surface transport, worldwide road and rail passenger travel is expected to grow around between 120% and 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 between 230% and 420%.

Similarly, Information and Communications Technologies (ICTs) industry is also growing and it continues to be at the heart of growth, innovation, economic and social development. The share of the ICT sector in GDP is around 6 percent in OECD member countries and relatively less in developing countries. With rapid diffusion of digital technologies into developing countries, this number could rise in the future. In addition, the indirect contributions of ICT investment to economic growth, through improvements in total factor productivity, could be large as well.

Today, mobile devices and related broadband connectivity continue to more embedded in the fabric of society and they are crucial in driving the momentum in economic development of countries. According to the World Bank<sup>2</sup>, more households in developing countries own a mobile phone than have access to electricity or clean water, and nearly 70 percent of the bottom fifth of the population in developing countries own a mobile phone. The number of internet users has more than tripled in a decade—from 1 billion in 2005 to an estimated 3.5 billion at the end of 2016<sup>3</sup>.

Despite the fact that the broadband usage has been rapidly increasing throughout the World, significant differences arise among the regions in terms of broadband availability and usage rates depending on the economic development of the countries. Thus, the implications for policy making are far-reaching.

Given its critical importance, the broadband penetration has become an important agenda item of the COMCEC Transport and Communication Working Group.

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<sup>1</sup> OECD, 2012

<sup>2</sup> <http://documents.worldbank.org/curated/en/896971468194972881/pdf/102725-PUB-Placement-PUBLIC.pdf>

<sup>3</sup> ITU data

## **II. Transport and Communications Cooperation under the COMCEC**

Improving the functioning, effectiveness and sustainability of transport and communications in the Member States is the significant objective of COMCEC Strategy in the field of transport and communications. To this end, COMCEC focuses on important transport and communications issues in order to produce knowledge and create a common understanding as well as approximate policies in and among the Member Countries. Within this framework, COMCEC Transport and Communications Working Group devoted its ninth meeting to broadband internet penetration.

- **Ninth Meeting of the Transport and Communications Working Group (TCWG)**

After the 32<sup>st</sup> Session of the COMCEC, the Transport and Communication Working Group held one meeting in the field of communications. The Ninth Meeting of TCWG was held on 16<sup>th</sup> of March 2017 in Ankara, Turkey with the theme of “Increasing Broadband Internet Penetration in the OIC Member Countries”.

During the meeting, the representatives of the Member States discussed and shared their views and experiences on how OIC Member Countries can maximise the potential of the broadband penetration as a driver for innovation and growth and what are the evolutions in the broadband penetration that policy makers need to consider and the challenges they need to address. Also, the benefits and risks of broadband internet penetrations were discussed by the participants. Additionally, the issue of policies that can be implemented to enhance the quality of services provided in this field was elaborated. The discussions were enriched by presentations from the Member States and private sector.

In an attempt to provide inputs for discussions during the meeting, the COMCEC Coordination Office (CCO) commissioned a research report on the same subject with the theme of the meeting. The said research report indicates very important information regarding the state of broadband penetration in the OIC Member States, the main challenges they face and the possible policy recommendations to be implemented to overcome these challenges. The report also reveals important figures with respect to the state of broadband in the world and the global trends.

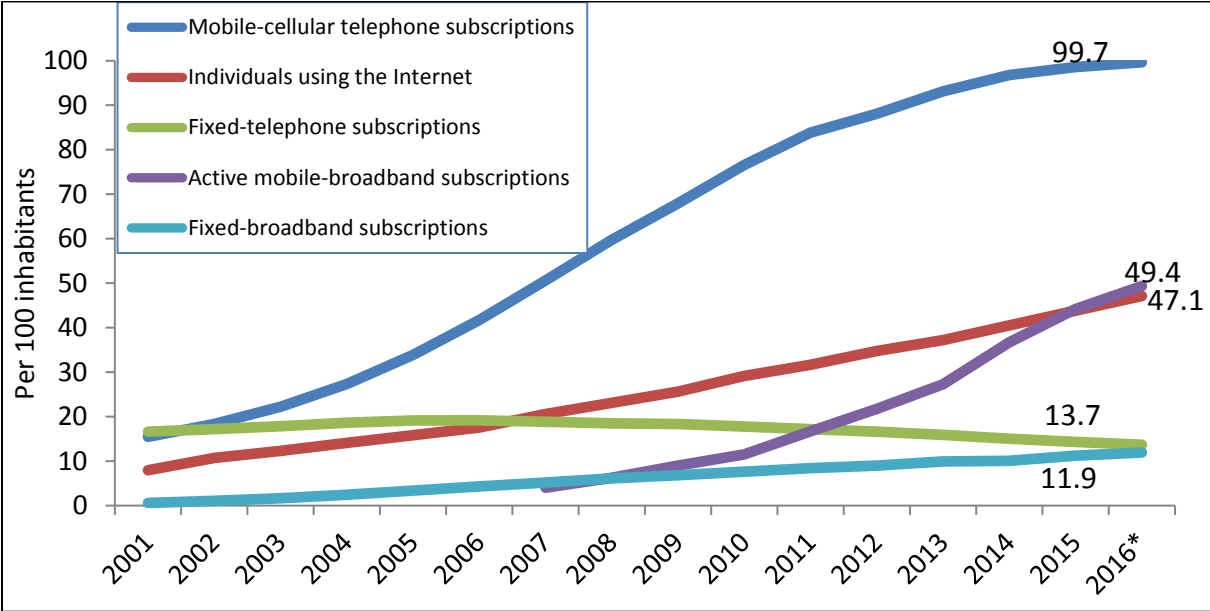
## **III. The Footprint of Broadband Penetration in the World**

ICTs industry has been growing unprecedently during the last decade as Global ICT Developments Index<sup>4</sup> shows in Figure 1. The digital economy now spreads to almost all aspects of the world economy, impacting sectors such as banking, retail, energy, transportation, education, publishing, media or health. ICTs are simply transforming the ways social interactions and personal relationships are conducted, with fixed, mobile broadband networks and devices.

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<sup>4</sup> The Global ICT Developments Index (IDI) is a composite index that combines 11 indicators into one benchmark measure which can be used to monitor and compare developments in ICT between countries and over time.

**Figure 1: Global ICT developments, 2001-2016**



Note: \* Estimate  
 Source: ITU World Telecommunication /ICT Indicators database

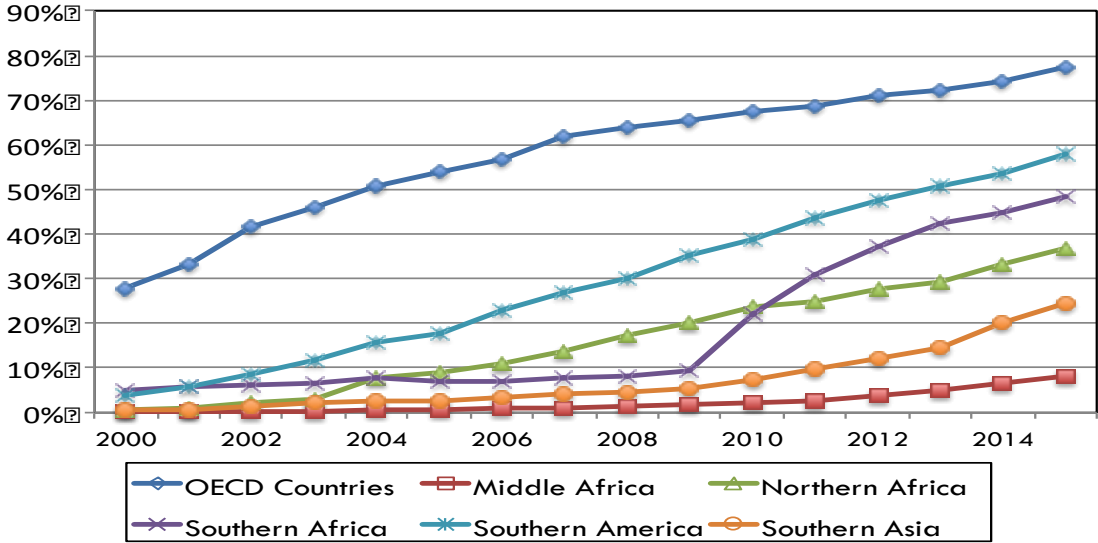
As a critical component of digital economy, broadband is a critical infrastructure for fostering economic growth and citizen welfare. Beyond the benefits linked to GDP growth, broadband contributes to job creation and enhancement of consumer savings. The above-mentioned research report highlights that the higher broadband penetration is, the stronger its effect on economic growth. Thus, countries and their citizens will benefit from accelerating broadband adoption.

According to the report, 3.5 billion people are currently using internet of which 2.4 billion are from developing countries. Besides that, 34% of households in developing countries, 7% of households in least developed countries (LDCs) and 80% in developed countries have internet access by the end of 2015, compared with the world average of 46%.

Based on these data, global internet penetration grew approximately 8 times from 6.5 percent to 47.1 percent between 2000-2016. Nonetheless, almost 4 billion people from developing countries remain offline, representing 2/3 of the total population of developing countries. According to McKinsey (2014), the top twenty countries with the largest offline population account for around 75 percent of the total global offline population. The top three countries alone (India, China and Indonesia) account for 46 percent of offline population.

As Figure 2 indicates, internet use in emerging regions falls behind the developed world average (OECD) between 20 (South America) and 69 percentage points (Middle Africa). It is important to note, however, that at least for some regions in the emerging world (such as South America, Southern and Northern Africa), the gap with developed countries is gradually narrowing down.

**Figure 2: Internet penetration (as percent of population) (2000-2015)**



Sources: COMCEC, *Increasing Broadband Internet Penetration in the OIC Member Countries*

**III. Broadband Penetration in the OIC Member Countries**

The above-mentioned report reveals that broadband technology has undergone a dramatic diffusion around the the OIC Member Countries since 1990s. As of the end of 2015, 14.95% of households in the OIC Member Countries were connected to broadband technology, while 29.41% of individuals had mobile broadband connectivity. These statistics are even more impressive when considering that broadband didn’t start its diffusion process 2001 in the case of fixed, and 2007 for mobile. In several OIC Member Countries such as Azerbaijan, Lebanon, Malaysia, Qatar, fixed broadband household penetration had exceeded 50%, while in others like Bahrain, Saudi Arabia, and UAE mobile broadband penetration was higher than 70%.

The research report also suggests that the percentage of internet users varies significantly across OIC regions as well. For example, internet penetration in African OIC countries reaches 27.90%, while in Arab OIC countries, it is 39.53%, and in Asian OIC countries, it is 28.05%. Fixed broadband penetration within OIC member states has reached 14.95% of total households, compared to 78.07% in OECD countries. On the other hand, mobile broadband penetration has reached 29.41% of total population, compared to 87.17% for OECD countries.

Within this framework, it is clear that the universe of the OIC Member Countries is not homogeneous when it comes to the challenges faced regarding broadband development. The report identifies three broadband development stages to reveal the differences among the OIC Member Countries in terms of broadband development in the table below (the detailed table is annexed).

**Table: OIC Member Countries: State of broadband supply and demand (2015)**

	Supply			Demand	
	Fixed Broadband Coverage (ADSL)	Mobile Broadband Coverage (3G)	Mobile Broadband Coverage (4G)	Fixed Broadband Penetration (households)	Mobile Broadband Penetration (population)
OIC Average	53.33%	64.16%	46.82%	14.95%	29.41%
Advanced	>70 % 13 countries	>70%: 25 countries	>70% 6 countries	>70% 6 countries	>70% 9 countries
Intermediate	70%-40% 3 countries	70%-40% 17 countries	70%-40% 4 countries	70%-40% 8 countries	70%-40% 11 countries
Developing	<40% 39 countries	<40% 15 countries	<40% 37 countries	<40% 43 countries	<40% 35 countries

Source: COMCEC, *Increasing Broadband Internet Penetration in the OIC Member Countries*

The table shows that generally some OIC Member Countries in the Middle East (Bahrain, Oman, Qatar, Saudi Arabia, UAE) and Central Asia (Azerbaijan, Kazakhstan) tend to be fairly advanced in terms of supply and penetration of broadband services. On the other hand, a large group of African countries (Benin, Burkina Faso, Cameroon, Chad, Guinea, Senegal, Sierra Leone, Sudan, Togo) are still at a limited stage of broadband development both in terms of supply and demand. Finally, a number of countries in North Africa (Egypt, Tunisia, Morocco), Sub-Saharan Africa (Cote d'Ivoire), Middle East (Kuwait) and Asia (Brunei, Kyrgyzstan, Turkey, Uzbekistan) exhibit advanced service coverage of the population combined with low penetration.

Nevertheless, the OIC Member Countries are increasingly aware of the need to develop the digital economy including broadband penetration in a strategic manner, to expand its benefits and respond to key challenges such as reducing unemployment and lifting people out of poverty. In this context, policy-makers have been studying the whole range of social and economic effects related to broadband, as well as developing conceptual frameworks that help define policies aimed at maximizing its penetration and measuring its contribution.

The report highlighted the major challenges faced by OIC Member Countries in terms of broadband penetration as follows:

- Lack of investment of next generation broadband networks,
- Limited affordability,
- Limited awareness of the potential of the broadband service or lack of digital literacy,
- Lack of cultural relevance or interest.

In order to address these challenges and to maximise the potential of the broadband penetration for productivity, innovation, growth and jobs, the research report identified significant policy recommendations to be implemented by the member countries. The report is available on the COMCEC website. ([www.comcec.org](http://www.comcec.org))

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

**A. Policy Recommendations for all OIC Member Countries**

**I:** Preparing national broadband strategies with the involvement of the all relevant stakeholders

**II:** Enhancing digital literacy by embedding programs in the formal education system and encouraging non-formal initiatives targeting specific segments of the population

**B. Policy Recommendations for the OIC Member Countries with Different Stage of Broadband Development**

**1. OIC Member Countries at advanced stages of broadband development**

**I:** Achieving high-speed Internet coverage in rural and isolated areas through regulatory holidays<sup>6</sup> and direct subsidies with the purpose of improving the broadband investment business case

**II:** Enactment of financial incentives to operators for deploying 4G

**2. OIC Member Countries at an intermediate stage<sup>7</sup> of broadband development**

**I:** Reducing cost of broadband services through targeted public policy initiatives

**II:** Lowering the cultural and linguistic barriers through development of local platforms, content, and applications.

**3. OIC Member Countries at initial stages of broadband development**

**I:** Offering a low-priced broadband service for consumers by state-owned and government subsidized telecommunications operators

**II:** Offering a low-priced or free broadband service targeted for disadvantaged segments of the population

The TCWG will hold its tenth meeting in Ankara, on 17-18<sup>th</sup> of October 2017 with the theme of “Improving Transnational Transport Corridors in OIC Member States: Concepts and Cases”. 32. COMCEC Ministerial Session decided on “Improving Transnational Transport Corridors among the OIC Member Countries” as the theme for the Ministerial Exchange of Views Session at the 33rd Session of the COMCEC. 10<sup>th</sup> Meeting of the TCWG will make necessary preparations for Ministerial Exchange of Views Session and it is critical importance to come up with concrete policy recommendations on this topic for reporting it to the 33rd COMCEC Session.

**COMCEC Project Funding Mechanism**

Through its Project Funding Mechanism, the CCO provides grants to the selected projects proposed by the Member States that have already registered to the Transport and Communications Working Group and relevant OIC institutions.

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<sup>5</sup> OIC Member Countries at advanced stage refers to the countries which have high coverage and adoption of broadband internet.

<sup>6</sup> Regulatory holiday refers to the absence of some regulatory obligation to provide access, at least for a predefined period of time.

<sup>7</sup> OIC Member Countries at intermediate stage generally have advanced coverage but limited broadband penetration.

<sup>8</sup> OIC Member Countries at initial stage refers to the countries which need to increase both supply and demand for broadband services.

In 2016, the Republic of Turkey and its project partners have been implementing 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”. This Project included desk based studies, field visits to selected countries and a panel organization in İstanbul. During the desk based studies, the gravity centers for air trade and air cargo were identified by utilizing several industry specific databases. Considering the gravity centers as well as existing and future air traffic, three pilot member states (Mozambique, Tunisia and Malaysia) were identified for further analysis and field studies. Between December 14<sup>th</sup>-16<sup>th</sup>, 2016, Air Cargo Panel was held in Istanbul with the participation of partner countries. Several presentations were made aiming at triggering a serious debate among the participants in order to create a common collaboration and cooperation platform among OIC member states and relevant commercial entities on air cargo transportation. Finally, a research report was prepared at the end of the project giving suggestions for the OIC countries, especially for the three countries. Establishing freighter service networks among sub-regions, setting up a sustainable demand structure and facilitating regularity framework were among the suggestions of the report.

Within the framework of 4<sup>th</sup> project call in September 2016, project proposal by Cote d’Ivoire has been selected for COMCEC funding. The project titled “Improving the Capacity on Road Safety in Côte d'Ivoire, Burkina Faso and Mali” will be implemented during 2017 together with Burkina Faso and Mali. The project aims at raising awareness of individual risk factors in road safety and proposing solutions. Within the project, a training of trainers for three countries and a pilot campaign for Cote d’Ivoire will be conducted.



## ANNEX:

Table: OIC Member Countries: State of broadband supply and demand (2015)

	Supply			Demand	
	Fixed Broadband Coverage (ADSL)	Mobile Broadband Coverage (3G)	Mobile Broadband Coverage (4G)	Fixed Broadband Penetration (households)	Mobile Broadband Penetration (population)
OIC Average	53.33%	64.16%	46.82%	14.95%	29.41%
Advanced	>70 %  Azerbaijan, Bahrain, Brunei, Jordan, Kazakhstan, Lebanon, Malaysia, Maldives, Oman, Qatar, Saudi Arabia, Turkey, UAE,	>70%:  Albania, Azerbaijan, Bahrain, Bangladesh, Brunei, Cote d'Ivoire; Egypt, Gabon, Gambia, Jordan, Kazakhstan, Kuwait, Lebanon, Malaysia, Maldives, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Suriname, Syria, Tunisia, Turkey, UAE	>70%  Kazakhstan, Kuwait, Pakistan, Qatar, Saudi Arabia, UAE	>70%  Azerbaijan, Bahrain, Lebanon, Qatar, Saudi Arabia, UAE	>70%  Bahrain, Kuwait, Libya, Malaysia, Oman, Qatar, Saudi Arabia, Suriname, UAE
Intermediate	70%-40%  Kuwait, Palestine, Suriname	70%-40%  Afghanistan, Algeria, Benin, Cameroon, Indonesia, Iran, Iraq, Kyrgyzstan, Mozambique, Nigeria, Pakistan, Senegal, Sudan, Togo, Uganda, Turkmenistan, Uzbekistan	70%-40%  Jordan, Malaysia, Morocco, Oman,	70%-40%  Brunei, Kazakhstan, Malaysia, Maldives, Oman, Palestine, Suriname, Turkey	70%-40%  Albania, Algeria, Azerbaijan, Cote d'Ivoire, Egypt, Indonesia, Kazakhstan, Lebanon, Maldives, Tunisia, Turkey
Developing	<40%  Afghanistan, Albania, Algeria, Bangladesh, Benin, Burkina Faso, Cameroon, Chad, Comoros, Cote d'Ivoire, Djibouti, Egypt, Gabon, Gambia, Guinea, Guinea Bissau, Guyana, Indonesia, Iran, Iraq, Kyrgyzstan, Mali, Mauritania, Morocco, Mozambique, Niger, Nigeria, Sierra Leone, Somalia, Syria, Sudan, Tajikistan, Togo, Tunisia, Turkmenistan, Uganda, Uzbekistan, Yemen	<40%  Burkina Faso, Chad, Comoros, Djibouti, Guinea, Guinea Bissau, Guyana, Libya, Mali, Niger, Mauritania, Sierra Leone, Somalia, Tajikistan, Yemen	<40%  Afghanistan, Albania, Algeria, Bangladesh, Benin, Burkina Faso, Cameroon, Chad, Comoros, Cote d'Ivoire, Djibouti, Egypt, Gabon, Gambia, Guinea, Guinea Bissau, Guyana, Indonesia, Iran, Iraq, Kyrgyzstan, Mali, Mauritania, Mozambique, Niger, Nigeria, Sierra Leone, Somalia, Syria, Sudan, Tajikistan, Togo, Tunisia, Turkmenistan, Uganda, Uzbekistan, Yemen	<40%  Afghanistan, Albania, Algeria, Bangladesh, Benin, Burkina Faso, Cameroon, Chad, Comoros, Cote d'Ivoire, Djibouti, Egypt, Gabon, Gambia, Guinea, Guinea-Bissau, Guyana, Indonesia, Iran, Iraq, Jordan, Kuwait, Kyrgyzstan, Libya, Mali,  Mauritania, Morocco, Mozambique, Niger, Nigeria, Pakistan, Senegal, Sierra Leone, Somalia, Sudan, Syria, Tajikistan, Togo, Turkmenistan, Uganda, Uzbekistan, Yemen	<40%  Afghanistan, Bangladesh, Benin, Brunei, Burkina Faso, Cameroon, Chad, Comoros, Djibouti, Gabon, Gambia, Guinea, Guyana, Iran, Iraq, Jordan, Kyrgyzstan, Mali, Mauritania, Morocco, Mozambique, Niger, Nigeria, Pakistan, Senegal, Sierra Leone, Somalia, Sudan, Syria, Tajikistan, Togo, Turkmenistan, Uganda, Uzbekistan, Yemen

	Supply			Demand	
	Fixed Broadband Coverage (ADSL)	Mobile Broadband Coverage (3G)	Mobile Broadband Coverage (4G)	Fixed Broadband Penetration (households)	Mobile Broadband Penetration (population)
				Togo, Tunisia, Turkmenistan, Uganda, Uzbekistan, Yemen	

Source: COMCEC, *Increasing Broadband Internet Penetration in the OIC Member Countries*

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