



Palestine Economic Policy Research Institute (MAS)

Background Paper

Roundtable (3)

The Competitiveness of the Telecommunication Services in Palestine

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2018

¹ This paper reflects only the views of the author views and does not necessarily represent the opinions of MAS.

Scope

This paper analyzes the competitiveness of telecommunications services in Palestine in terms of:

1. Palestinian telecommunications sector with respect to service prices and quality in comparison with neighboring countries;
2. Competitiveness among existing operators, the efficiency and quality of services provided in the sector, and the role they play in safeguarding consumers rights;
3. Development of the sector in relation to a number of aspects, including technical issues and its ability to meet the growing demand of consumers in different sectors;
4. The extent to which the Palestinian telecommunications sector depends on services provided by Israel and neighboring countries, as well as examining the reasons for purchasing such services; and
5. The investment climate and general feasibility of investing in the Palestinian telecommunications sector.

The Palestinian National Authority (PNA) is responsible for regulating the telecommunications and postal services sector, as provided in the Israeli-Palestinian Interim Agreement, which made many regulatory areas subject to coordination between the Palestinian and the Israeli authorities. The agreement has negatively impacted the Palestinian telecommunications and postal sector in different ways:

- The agreement granted the Israeli side complete control over telephone, radio, TV and satellite frequency spectrum, as well as the digital spectrum of telephone services in the Gaza Strip and the West Bank.
- Under the agreement, the Israeli side has the right to control the use of the radio spectrum. Similarly, with the treatment of Palestinians at Israeli crossings, the Palestinian operators are required to go through Israeli-registered company to access international links.
- Under the agreement, Israel has the right to impose restrictions on the construction of Palestinian networks and relay transmitters in area C, which hindered the integration of Palestinian networks. Israel has also compelled Palestinian operators to communicate with each other through Israeli telecom companies at excessive rates and on unfair terms, thus restricting effective communication between governorates, especially between the West Bank and Gaza Strip.
- The agreement granted Israeli companies the right to build and operate their networks in East Jerusalem, at the same time denying the Palestinian companies the same right.
- The agreement granted Israeli companies the right to build and operate their networks and provide services in the West Bank under the guise of needing to reach the illegal colonial settlements. This has enabled these companies to cover all areas of the West Bank and Gaza Strip which would, otherwise, be covered by Palestinian companies.

Monopoly in the Telecommunications Sector: Background of Granting License

Exclusive privileges and concessions are sometimes granted for a limited period of time, provided that the service remains public property, to allow investors to construct a high-quality service network without having to worry about capital recovery. When a government grants a concession, it usually controls prices and quality of the services. In the absence of competition in the market, the cost is added to the rate of the profit, and the government must ensure that the concessionaire or the exclusive rights holder does not abuse the market.

In the telecommunications industry, Long-Run Average Incremental Cost (LRIC) model is used to calculate the costs of using the infrastructure (semi-fixed, expected costs for a certain period of time) instead of determining prices in line with interconnection tariffs, which are based on comparative and estimated prices. In the absence of an independent regulator, the Ministry of Telecommunications can, thus, calculate the cost of the telecommunications network traffic, by licensees, to deliver the service to the consumers and allow competition among internet service providers. In 2009, the Ministry of Telecommunications separated Paltel (the owner of the fixed telecommunications network) from its subsidiary internet service provider (Hadara) to restrict the parent company's support to Hadara, an intervention that can harm fair competition in the market.

Some governments in developed countries build or contribute to the construction of infrastructure without having to grant concessions to private investment companies. Usually, they grant infrastructure management privileges to independent, non-profit organizations, providing equal opportunities for licensed companies to compete for the delivery of different services to consumers. In any case, the ministry or the regulatory body monitors the development of the infrastructure to ensure technical neutrality and to break a monopoly of any single provider, thus forcing competing companies to use the same technologies.

Under the Interim Telecommunications Agreement, the Palestinian Authority almost entirely privatized the telecommunications sector in 1996. Paltel was thus established under a license that granted it the right to operate telecommunications networks covering all Palestinian territories for 20 years, denying other operators the right to tender. The Telecommunications Law No. 3 was issued in 1996, and in 2003

the terms of the license were made public. Later the annexes thereto were published. Although the license agreement authorizes the Minister of Communications to sign on behalf of the Palestinian Authority, the agreement was signed by the Minister of Finance at the time, and no original copies of the license or its annexes were filed at the Ministry.

The license gave Paltel the exclusive rights to operate a mobile network without any conditions placed on its operation. Paltel was given the exclusive rights for a 10-year period for land lines. For mobile network, it was granted a 5-year exclusive license to operate or until the number of subscribers reaches 120,000, whichever comes first. This was contingent on an approval by the Israeli side, which would provide the necessary frequencies.

Under the license, the PA would receive seven percent of the total revenues of Paltel, in exchange for allowing the Company to use and develop the infrastructure and appropriate public properties, including buildings and land, as well as spectrum and numbers for fixed and mobile phones. The seven percent ratio, the income tax and VAT from Paltel generate a monthly public revenue of about NIS 50 million.

By granting that concession, the PA wanted to give Paltel the opportunity to develop and invest in the Palestinian telecommunications infrastructure without being adversely affected by competition. In terms of mobile service delivery, though, Paltel had to compete with the illegally-operating Israeli mobile operators. Today, Paltel's exclusive rights are restricted to land lines, where investment lags far behind investment in mobile networks.

The bulk of Paltel's revenue and profit comes from mobile phone services (Jawwal). Mobile technology matches today's lifestyle, which increases consumer demand. During the past few years, Paltel has significantly reduced its investment in fixed lines.

As loose as it may be, the agreement obliges the government to provide the necessary facilities to the company. It does not impose specific conditions to ensure the company fulfills the licensing terms, such as developing and modernizing the land lines infrastructure and providing fixed telecommunications services to all regions, including those that are not economically viable. The exclusive rights to operate within fixed lines ended in 2006, and Jawwal's exclusivity ended in 2003. However, actual competition began only in 2009 for mobile networks. In 2010, partial competition began in the provision of fixed lines services, such as Internet services and VoIP services. This year, the Ministry allowed licensed telecommunications companies to use optical fiber, owned by electricity companies, to control electricity networks for the purpose of providing telecommunications services to the population and encourage competition in fixed telecommunications infrastructure.

Competition and liberalization of the market

Wataniya Mobile's entry into the Palestinian cellular market brought about a quantum leap in the sector. However, the progress was inadequate due to PA's inability to grant cellular operators sufficient frequencies as they were controlled by the State of Israel (GoI), especially 3G frequencies which allow subscribers to access the Internet.

Having acquired a license with sufficient 2G frequencies in 2007, Wataniya Mobile started operating in 2009. As per the 15-year national license, the company has to pay JD 250 million (\$ 355 million), of which it has already paid almost half. The remaining amount is due when the company starts operating in the Gaza Strip. The government has enabled Wataniya to operate in the best possible way and, after a national reconciliation, it will have full access to the Gaza Strip. This will initiate real competition in the Gaza Strip, resulting in a drop in prices and improvement in the quality of services provided. It will also allow the Treasury to collect the remaining license fees.

The legal environment governing the telecommunications industry is unclear and somehow restricted, which negatively affects the potential for new investments in the sector. It also drains public money because the concerned ministry is unable to adequately monitor and regulate the telecommunications sector in the manner expected by the investor. The PA Treasury suffers most from the weak legal

environment of the telecommunications sector. For example, the Ministry cannot impose fines on companies violating the conditions of operation.

The delay in assigning an independent regulator for the telecommunications industry has negatively affected the sector and deprived the market of significant investment opportunities. A regulator ought to be sufficiently independent in the sense that it operates independently of the main centers of political and economic powers. The delay in the formation of the Telecommunications Regulatory Council also hinders the potential for development and fair competition.

In November 2016, Paltel renewed its license for fixed and mobile lines for JD 290 million, for 20 years. The terms of the license were not publicly disclosed; nor was it clear whether the new license included fixed lines exclusivity, particularly the distribution of land lines numbers. The contract also allowed the government to collect JD 10 million for the use of public buildings by the company in the previous 20 years.

Several conclusions can be drawn from the two-decade experience in the telecommunications industry:

First, the interim agreements with the Israeli side have become permanent. They have drastically restricted growth of the telecommunications industry. They gave the Israeli side control over the sector, thus adversely impacting its development and integration with other production sectors.

Second, the conditions that surrounded the granting of the fixed and cellular telecommunications license in 1996 were not transparent. The terms of the agreement were not subject to public scrutiny or debate. The Treasury, and thus the citizens, have lost money that would, otherwise, be collected. The slow growth in the sector is a related setback.

Third, the monopoly of a single company and the absence of clear legislation that gives the Ministry the right to develop policies to oversee technical and organizational matters, and enables it to protect public right, have weakened the Ministry's enforcing role in dealing with the exclusive operator. This has contributed to low investment made in the construction of a modern communications network covering the whole territory of the country, including remote areas, which may be economically unviable for Paltel.

Fourth, the fragile legal structure, the political divide between the Gaza Strip and the West Bank and the absence of a politically and economically independent regulatory body for the telecommunications sector have significantly slowed liberalization of the market and weakened the ministry's surveillance of operators' investments in the industry.

Fifth, Paltel's market cap is about JD 560 million. In 2017, it reported JD 70 million in profits, a 12.5 percent return on total investment.

Palestine's telecommunications service prices as compared to some countries in the region

The regulatory body (the Ministry in the Palestinian case) sometimes compares the local prices of telecommunications services to those in the neighboring countries due to the overlap in the telecommunication systems, especially the frequency spectrum and the trans-border telecommunication networks. Bahrain Telecommunications Regulatory Authority (TRA) adopts OECD methodologies used by member countries, which makes it easier to compare prices to those in more technologically advanced countries than non-OECD members. Regional comparisons complement other measures usually undertaken by the telecom regulator such as LRIC and interconnection pricing, especially backhauling, which largely determines the price of the Internet connection, particularly for residential purposes.

All information relating to the price comparison is based on the TRA study conducted by Teligent². The comparison, which covers Arab countries only (Israel is not covered), is directly related to the Palestinian telecommunications sector, which is regulated by the interim agreement, especially Article 36 on telecommunications.

This comparison was made in previous years based on the Ministry's estimate of the 2012 prices in Palestine. Since then, the prices have seen little change. Where people expected price drops, they rose a little, especially internet services, for two reasons: First, the company raised the minimum charge in 2015. Despite the recent decrease, the price remained higher than in 2012. Second, the price of the shekel against the dollar rose significantly over its exchange rate in 2012.

Mobile Internet services were first used in Palestine in January 31, 2018, when Israel assigned 3G frequencies in the West Bank. Because some neighboring countries now use the 4G services, any comparison involving mobile broadband services is neither realistic nor objective. Additionally, Israel exercises a *de facto* control over Jerusalem; thus, international statistics on Palestine do not cover Jerusalem.

Comparison with Israel

In a report on behalf of OECD, Teligent made comparisons of telecommunications prices across many countries, including Israel. Together with countries such as Iceland, Latvia, Estonia and Slovenia, Israel was one of the highest-ranking countries in terms of the quality and low prices of telecommunications services (See figure 2). Israel grants permits to a large number of mobile virtual network operators that can purchase services and use existing network infrastructure at rates determined by the concerned Ministry on the basis of participation and cost of infrastructure.

Infrastructure is essentially public property, and the government has the right to determine how it is used for the public good.

Israel provides Internet services to a large number of submarine cables owned by Israeli and international companies. The Israelis enjoy high speed Internet connectivity. The country took the 60th position in terms of internet access speed, while Palestine ranked 123rd place.³ Ironically, Israel's cables are also available to Palestinian providers.

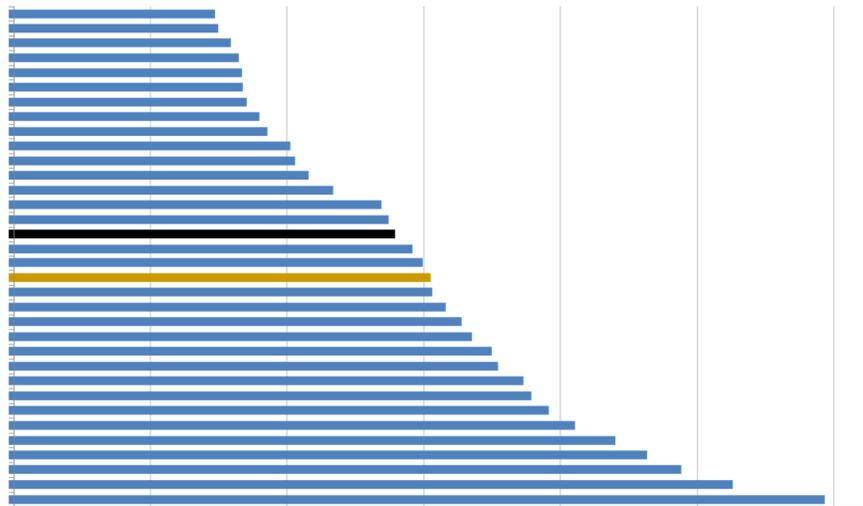
Table 1: Telecommunications Services: Israel vs. Palestine

Parameter	Israel	Palestine
Fixed line operators	Bezeq, HOT, 012 Smile, Cellcom	Paltel
Number of fixed phone lines	3.4 million (2014)	~350 K
Cellular mobile network operators	Pelephone, Cellcom, Partner, Hot Mobile, Golan Telecom	Jawwal, Wataniya
MVNO operators	Rami Levy, Free Telecom - x2one Israel, Home Cellular, 019 Telzar, Cellact	None
Number of cellular subscribers	10.276 million (2014)	3.5 million
Multi-channel TV operators	HOT (cable), yes (satellite)	None
Number of TV subscribers	1.485 million (2014)	!!!!!!
Number of Internet Service Providers (ISPs)	50+ (2014)	11
Number of broadband subscriber	~2.075 million (2014)	~350 K
Internet speed world rank	60	123

² <http://www.tra.org.bh/en/media/market-information/price-benchmarking.html>

³ https://docs.google.com/spreadsheets/d/1A8LDcCLY3HN5Oqys6VxB0ug8xgroDADVIA2BeAF_tSM/edit#gid=0

Figure 1: Fixed-line 30GB naked broadband basket



Monthly prices of fixed lines and internet access lines in Palestine compared with Arab countries

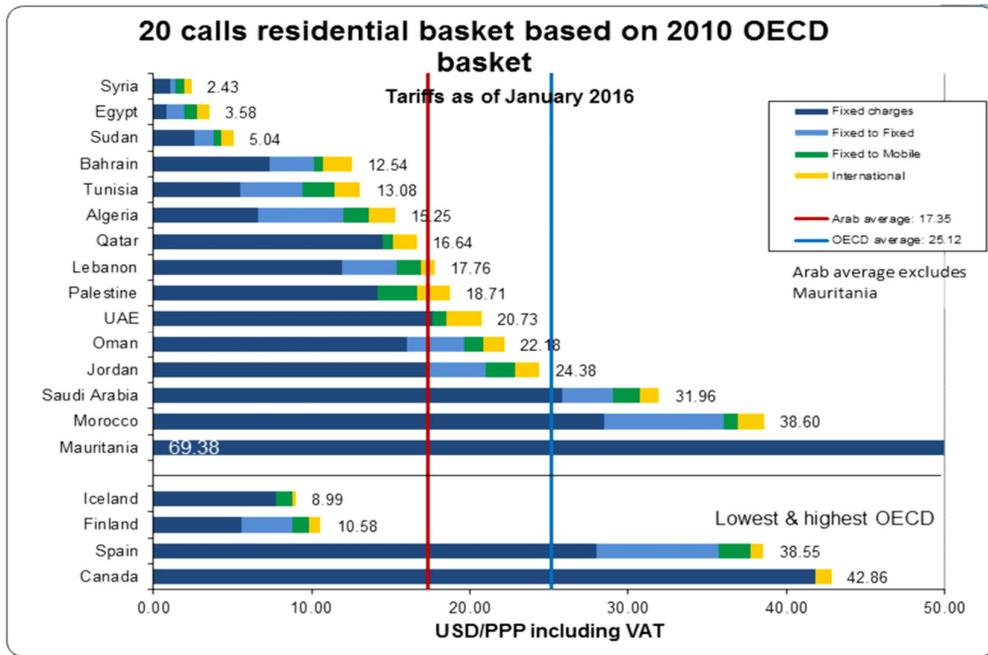
Under the license granted to Paltel, the company charges NIS 20 as a fixed monthly subscription fee for land line services (a specific number of calls). This amount is not specified by the license; rather it is based on an agreement between Paltel and the ministry or the regulatory body. Services are also determined against subscription fees, whose purpose is to generate a steady income for the company to cover operating costs, and to ensure investment in the network and development.

The land line service is used to connect to the Internet. Internet access has become the main reason why people install fixed telephone lines. In 2009, the Ministry partially liberalized the fixed telecommunications network by requiring Paltel to provide ADSL services as a first step to liberalize the market and to implement the Local-Loop Unbundling. Internet service providers (ISPs) were allowed to independently reach subscribers via the access line. ISPs were also allowed to obtain connectivity from any provider, whether from Paltel or any other company in the global market.

This measure has significantly reduced consumer Internet prices. However, the decrease in Internet prices has not resulted in lower monthly subscription fees or access line charges (which are added to the subscription fee) because Paltel raised the rate of the access line. The telephone line and the access line were supposed to be gradually separated and telephone numbers were supposed to be liberalized to allow Internet companies to compete for voice calls, as modern technology involves audio, written and video communication. The Palestinian consumers now unwillingly pay the cost of a service they do not need.

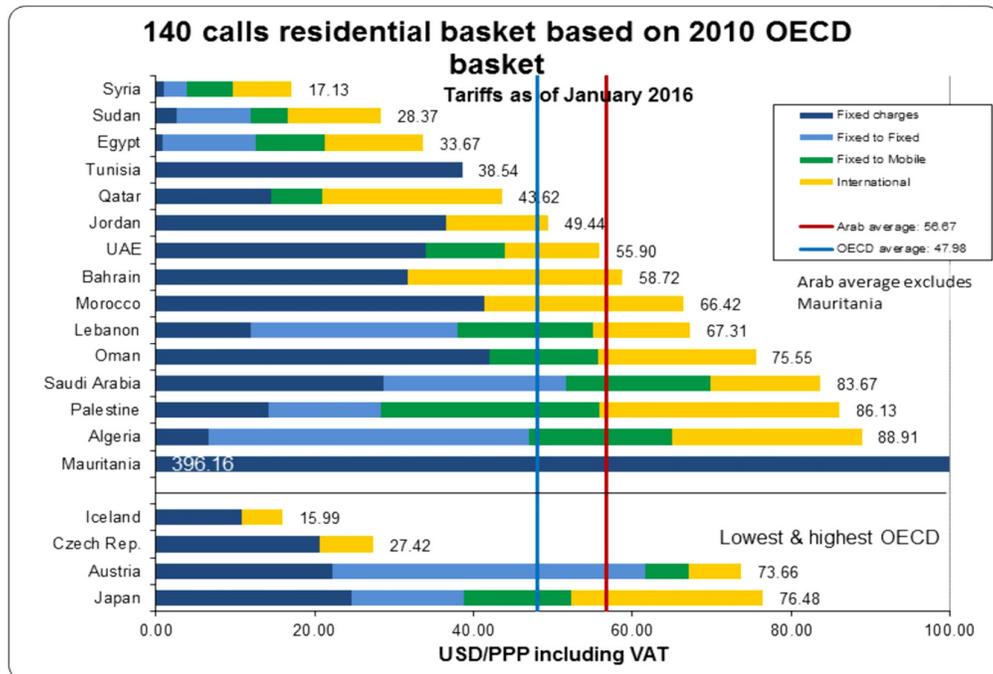
The liberalization of the fixed telecommunications market requires licensing new operators using existing infrastructure such as that of electricity companies; proceeding with dividing the fixed-line network; determining the rates for the use of its parts by Local-Loop Unbundling; and removing any impediments to fair and free competition such as the elimination of backhauling, which allows one company to control the Internet gateway. Naturally, lowering the price of termination calls would significantly lower the prices of incoming international calls. The price of a land line termination call per minute is NIS 0.458 compared to NIS 0.015 in Israel.

Figure 2: Prices of residential fixed line calls to up to 20 units in Arab countries



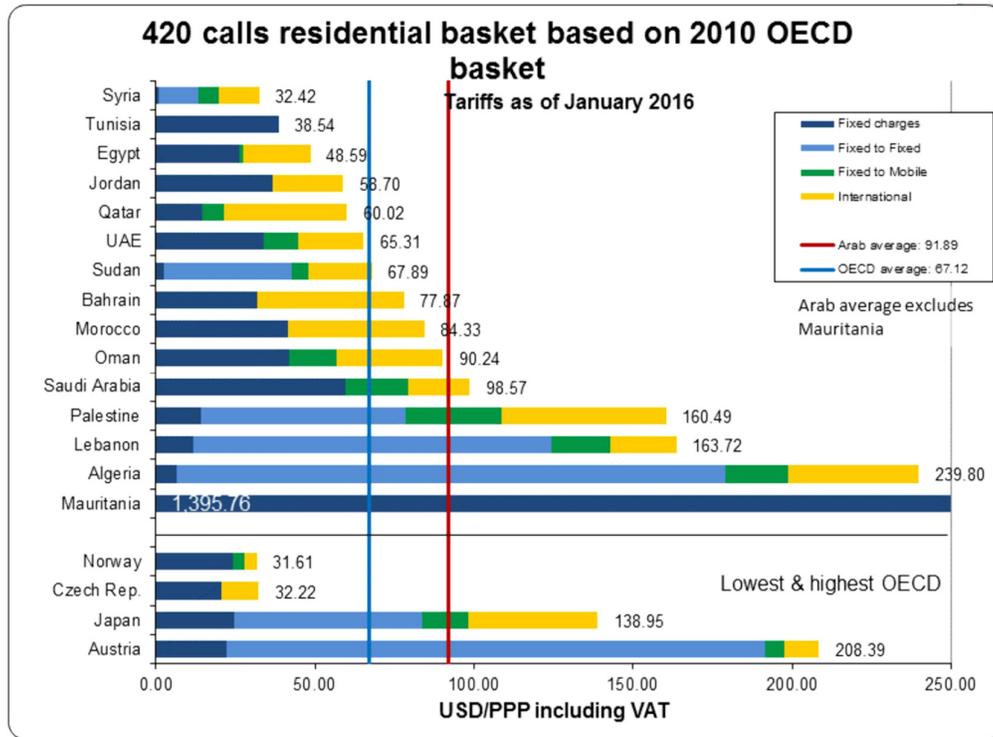
The NIS 20 subscription fee (about \$ 5.6 or about \$ 17 in PPP terms) also includes a package of calls (Figure 3). The rates are significantly higher for calls beyond the package. Paltel maintains a gap between the rates for land line-land line calls and land line-mobile phone calls. There is even a gap between land line-Jawwal calls and land line-Wataniya Mobile calls. This preference of Jawwal over Wataniya requires intervention by the Telecommunications Ministry. At fault here is the lack of clarity and the cosmetic administrative and financial separation between the fixed lines and Jawwal mobile networks.

Figure 3: Prices of residential fixed line calls to up to 140 units in Arab countries



The rates of international calls from fixed lines are by far higher than the rates set by mobile operators. Calls via mobile VoIP are very cheap, while connecting to the internet via a land line requires a computer and an internet subscription.

Figure 4: Prices of residential fixed line calls to up to 420 units in Arab countries



Mobile lines vs. 3G services

It is important to lower mobile prices for local and international calls, the inter-company interconnection tariffs and the price of termination calls per minute, which is NIS 0.632 compared to NIS 0.063 in Israel.

Such figures highlight the absence of a regulatory body, with a monopolist continuing to dominate the industry. To lessen such predominance, the regulatory agency should consider a number of measures: allowing clients to port their numbers to other networks; unifying the rate for interconnection and making it subject to administrative inspection; and reducing the rate gaps between calls within the same network and calls to a different network. The previous non-intervention policy by the government has not resulted in real competition in the market.

Licensing 3 or 4 mobile virtual network operators (MVNO)

MVNOs use the infrastructure of mobile phone companies; they can buy lines and wholesale calls from mobile phone companies and resell them.

Figure 5: Prices of mobile phone calls up to 30 units in the Arab countries

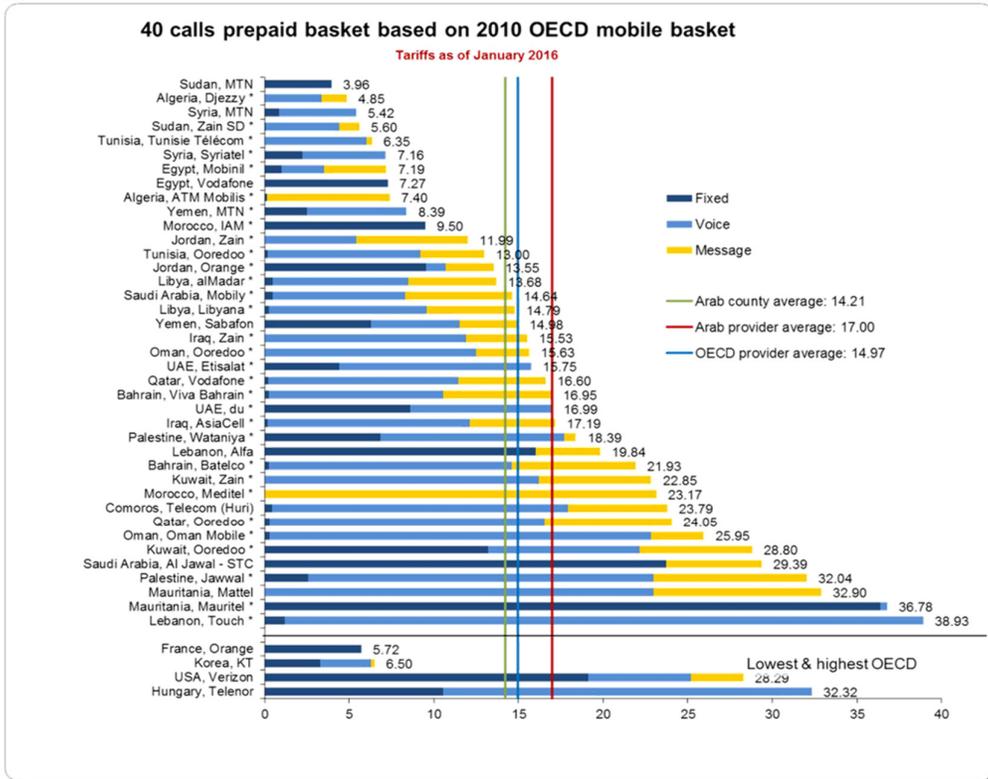


Figure 6: Prices of mobile phone calls up to 90 units in the Arab countries

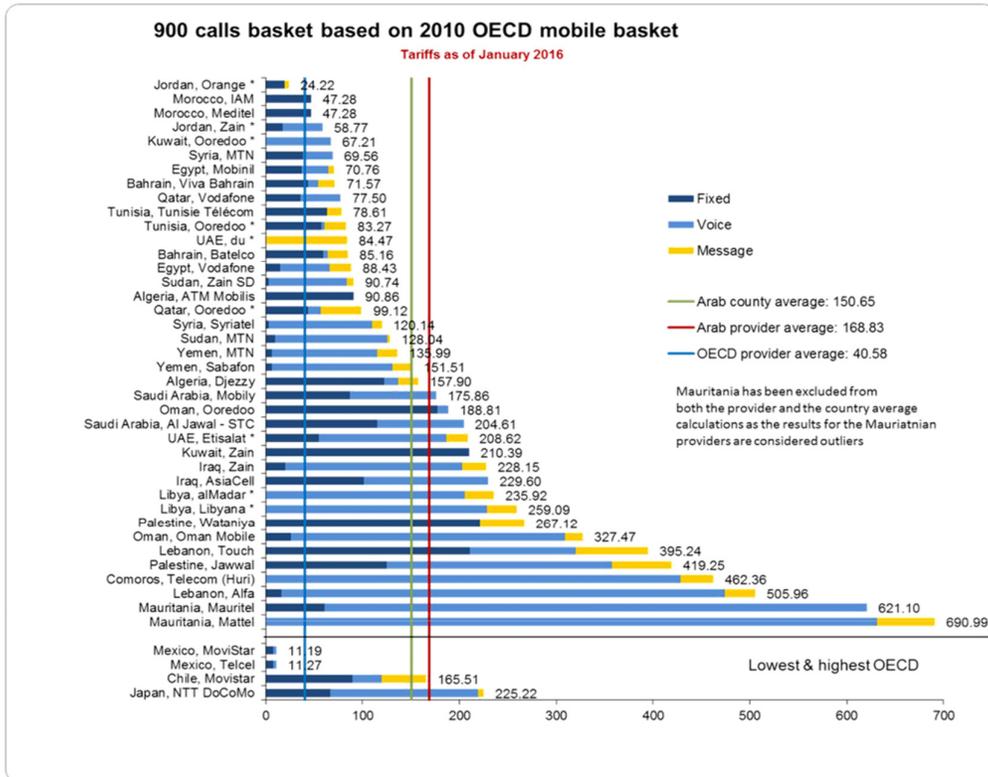
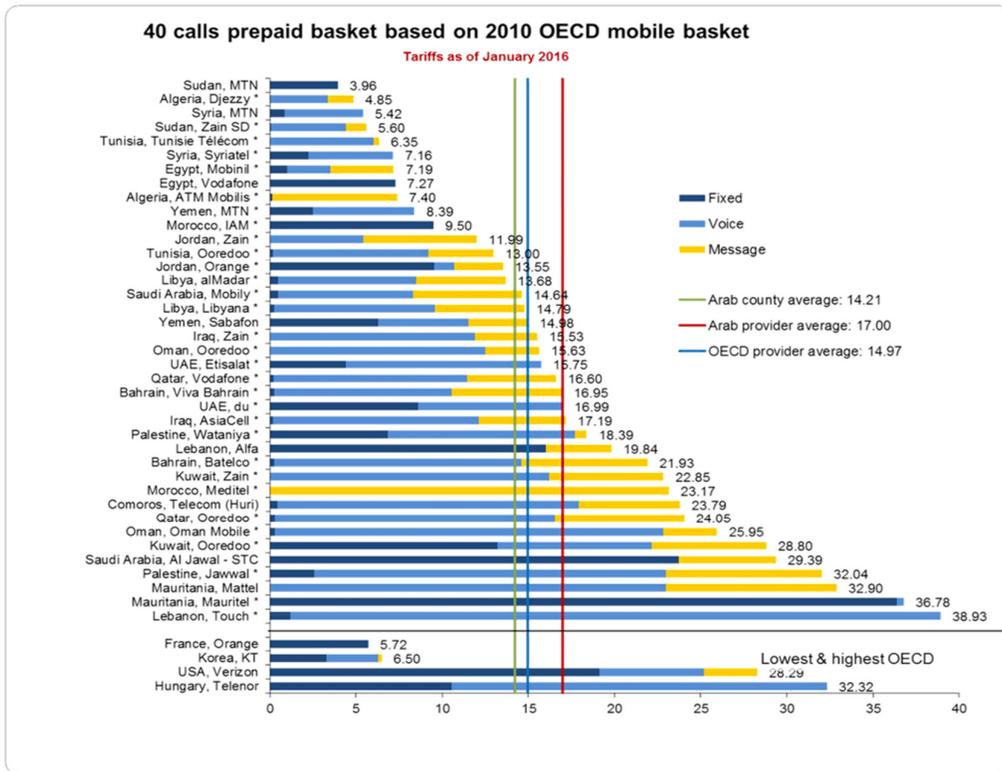


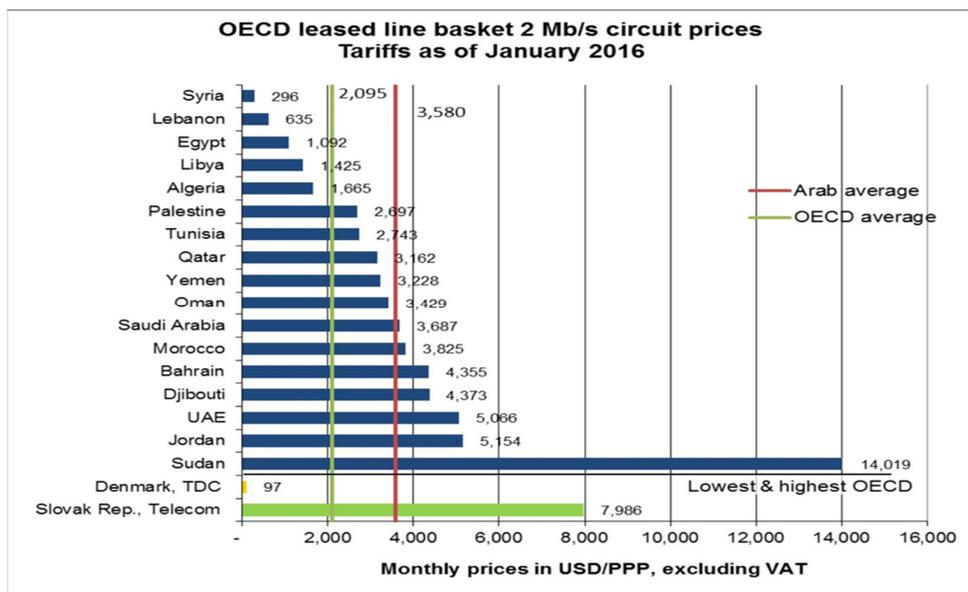
Figure 7: Prices of prepaid mobile calls up to 40 units in the Arab countries



Data Lines

The early and intensive use of leased lines by various government units, as well as the negotiations that took place between the government and Paltel have resulted in a reduction of the prices of the lines leased to the private sector businesses, such as banks.

Figure 8: Prices of leased line basket 2Mb in the Arab countries



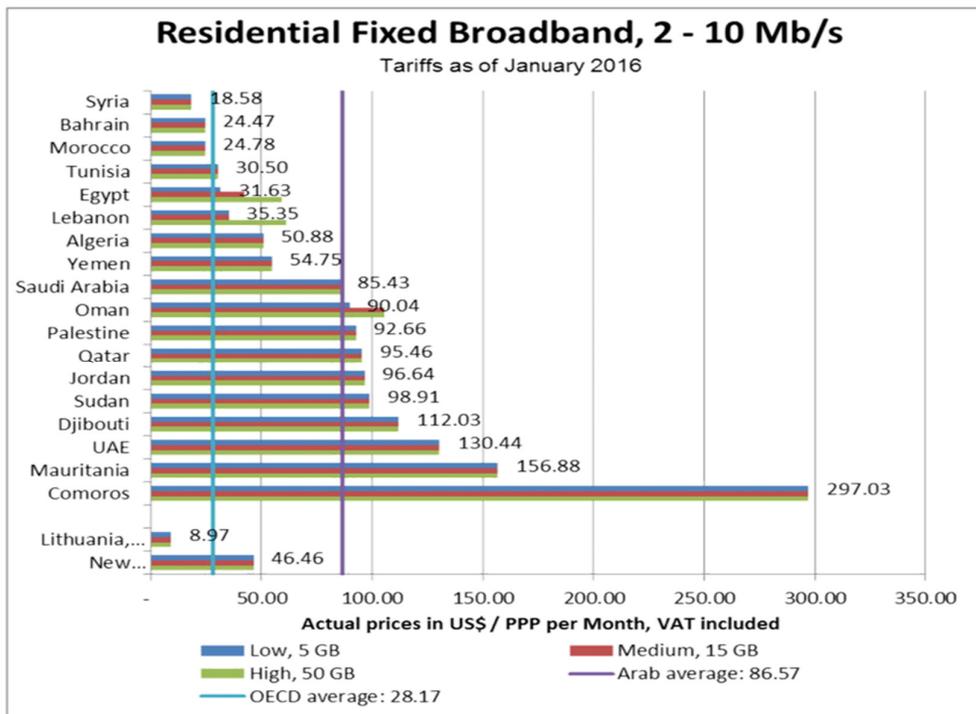
Internet for residential purposes (access line, non-competitive services)

The purchase of Internet services for residential and small business purposes is a heavy burden on the consumer. Previous efforts by the Ministry focused on:

1. Gradual removal of the subscription fee;
2. Separation between telephone line and internet line; and
3. Minimizing exclusivity in the provision of telecommunications services and focusing instead on communications infrastructure.

This implies the need for lowering the access line minimum charge, on par with the subscription fees and increasing internet speed. When this happens, the telephone line and the access line are separated, the subscription fee for the data line is removed, and the tariff is set as the minimum speed of 30 megabytes. The revenue from this tariff would be shared by the company that provides the infrastructure and the Internet provider, the role of Paltel being restricted to providing the needed infrastructure. All other competitive services are thus provided by Internet companies; and landline telephone numbers are liberalized from Paltel monopoly. Telephone numbers, like mobile phone numbers, are public properties at the disposal of the Ministry. Internet companies could thus offer unlimited free calls on their network, together with other services such as interactive TV, security systems and more.

Figure 9: Rates for residential fixed broadband at 2-10 mbps in Arab countries

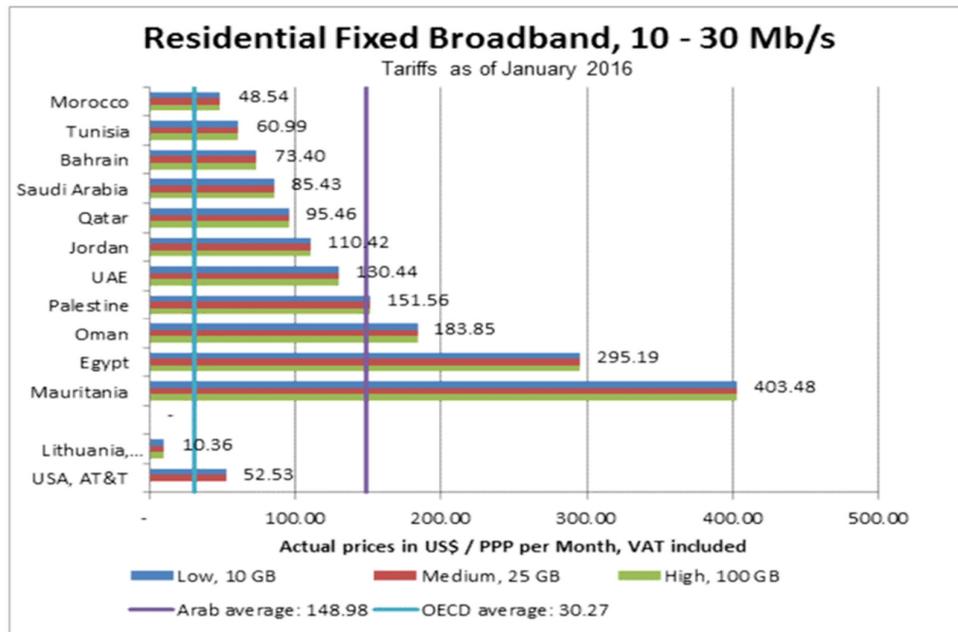


During the last two years, however, the government allowed Paltel to double the speed of the access line free of charge, for one year, at the new rate while increasing the speed. As the deduction was included in the same bill, it practically made the speed increment zero-rated. After a year of doubling the speed, the discount ends and the new rate is applied to the new range, which the subscriber cannot change under the terms of the double-speed special offer. Paltel can now claim that the speed increment was done with a minimal increase in rates after applying the new reduction. The operator needs to increase the speed of the access line to provide new services to a large, growing market such as interactive television, gaming and security. Many subscribers pay for services they do not need, and sometimes they cannot but accept them.

As a regulator, the Telecommunications Ministry should prioritize the development of the sector by focusing on investing in infrastructure, as its development is fundamental to real competition. Students, employees and emerging industries that rely heavily on telecommunication technologies should feel protected by the system.

Access line technologies are history; and they were only transitional. There is a need for setting a timeframe to turn to new innovative technologies that are in line with latest developments.

Figure 10: Rates for residential fixed broadband at 10-30 mbps in Arab countries



The Director of ITU's Telecommunication Development Bureau of Arab Preparatory Group for the 2017 World Telecommunication Development Conference (held in Khartoum, January 30-February 1, 2017) presented a document entitled "ICT Trends and Developments in Arab States." The document was intended to "serve as an authoritative reference for shaping the future of ICT development in the Arab States."⁴

"This document provides an overview of trends and developments in ICT infrastructure, access and use in the Arab region, which includes 22 countries and is home to a population of more than 387 million people. The document highlights how the ICT sector has continued its remarkable transformation and its impact on society and economic and social growth since the last World Telecommunication Development Conference in 2014 (WTDC-14). It also tracks the evolution of regulation."

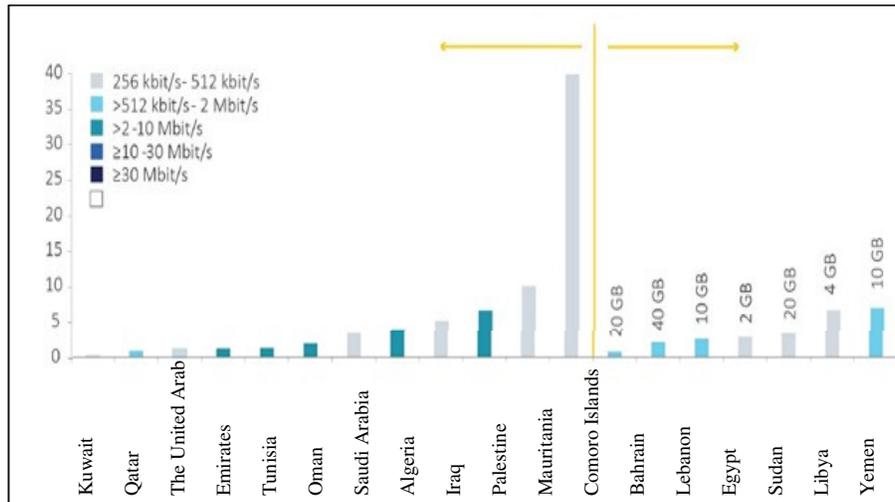
The indicators in the document reveal much about the development of the telecommunications sector and its impact on other sectors, especially information technology.

There is no doubt that the Israeli occupation continues to be the major constraint to the development of telecommunications in Palestine. In many of the indicators in that document, Palestine is one of the lowest-ranking countries. For example, in the mobile-broadband penetrations in the Arab States (subscriptions per 100 inhabitants) in 2015, Palestine scored zero due to lack of access to 3G frequencies. The low ranking was also reported in the mobile-broadband range. The low speed wireless communication makes it impossible to obtain 4G frequencies and Long-Term Evolution (LTE).

⁴ <https://www.itu.int/md/D14-RPMARB-C-0006>

The absence of a professional and independent regulation has delayed the liberalization of some important aspects of the telecommunications sector, particularly monopoly. The predominance of one land line company and two mobile operators explains the high rates and low quality of services, as well as the slow growth of other economic sectors.

Figure 11: Fixed-broadband prices as a percentage of GNI p.c., speeds and caps, Arab States 2015



Source: ITU. GNI p.c. values are based on the World Bank statistics.

Note: Broadband speeds and caps/month refer to the advertised speeds and the amount of data included in the entry-level fixed-broadband subscription.

Figure 12: Active mobile-broadband subscriptions per 100 inhabitants in the Arab region, 2015

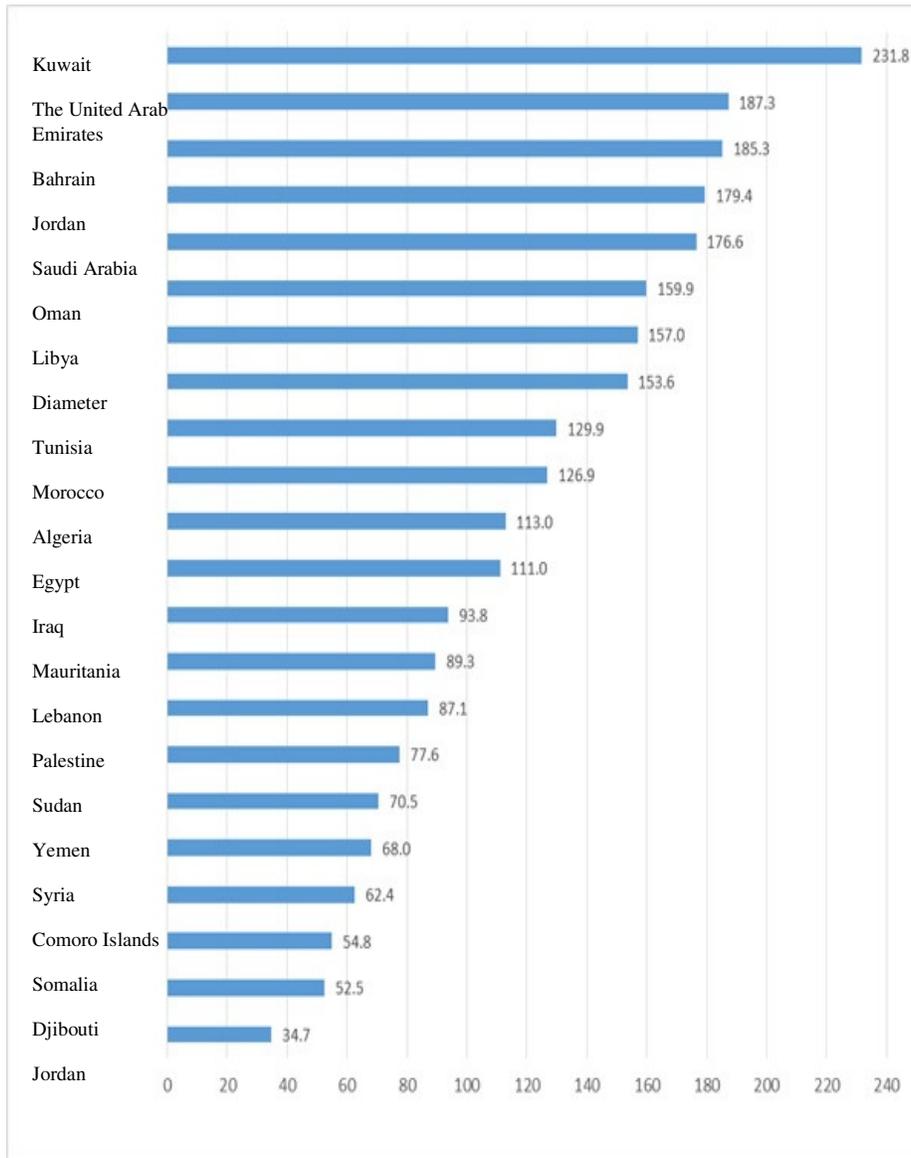


Figure 13: Fixed broad-band subscriptions per 100 in the Arab region, 2015

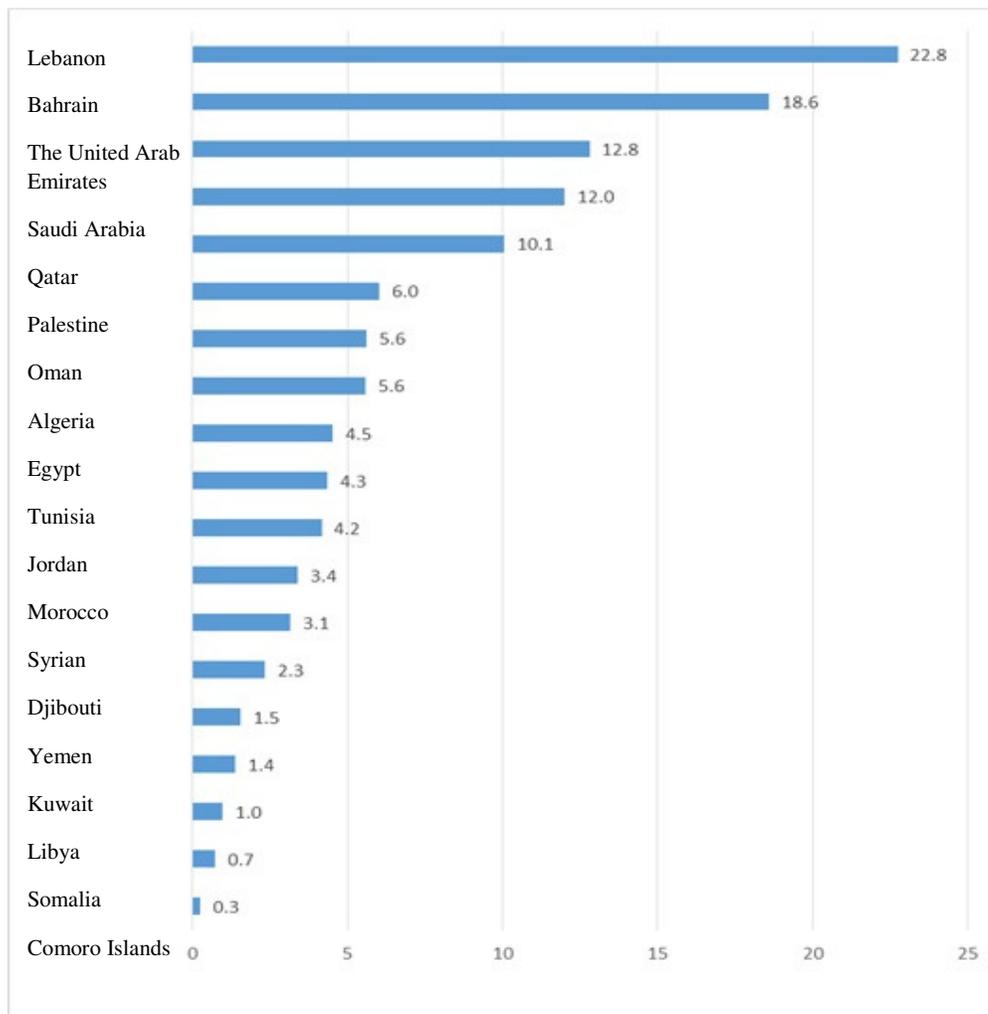
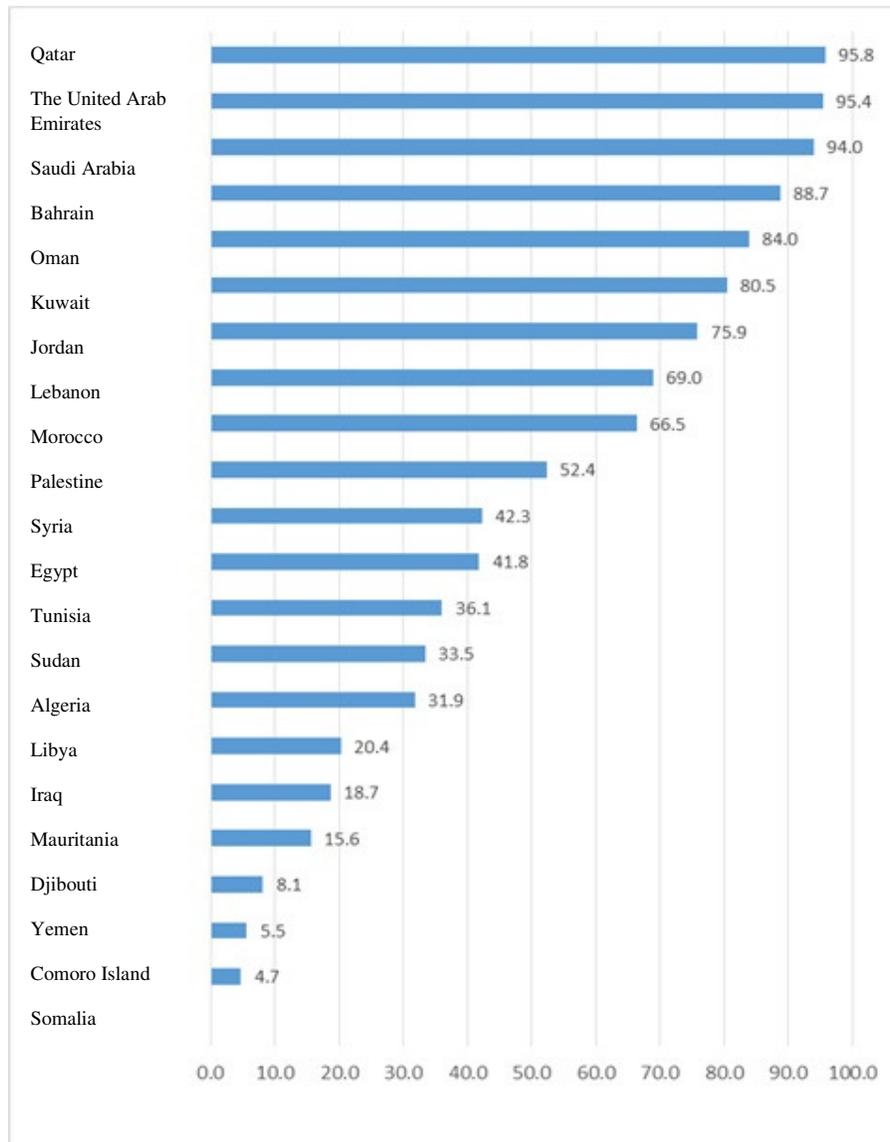


Figure 14: Households with Internet Access, Arab region, 2015



ICT Development Index (IDI): Indicators, Reference Values and Weights

The ICT Development Index (IDI) is a composite index that combines 11 indicators into one benchmark measure. It is used to monitor and compare developments in information and communication technology (ICT) between countries and over time. The index was developed by the United Nations International Telecommunication Union (ITU) in 2008 in response to a request by ITU Member States for the development of a comprehensive ICT Index. It was first published in 2009 within the ITU report. Since then, it is published annually.

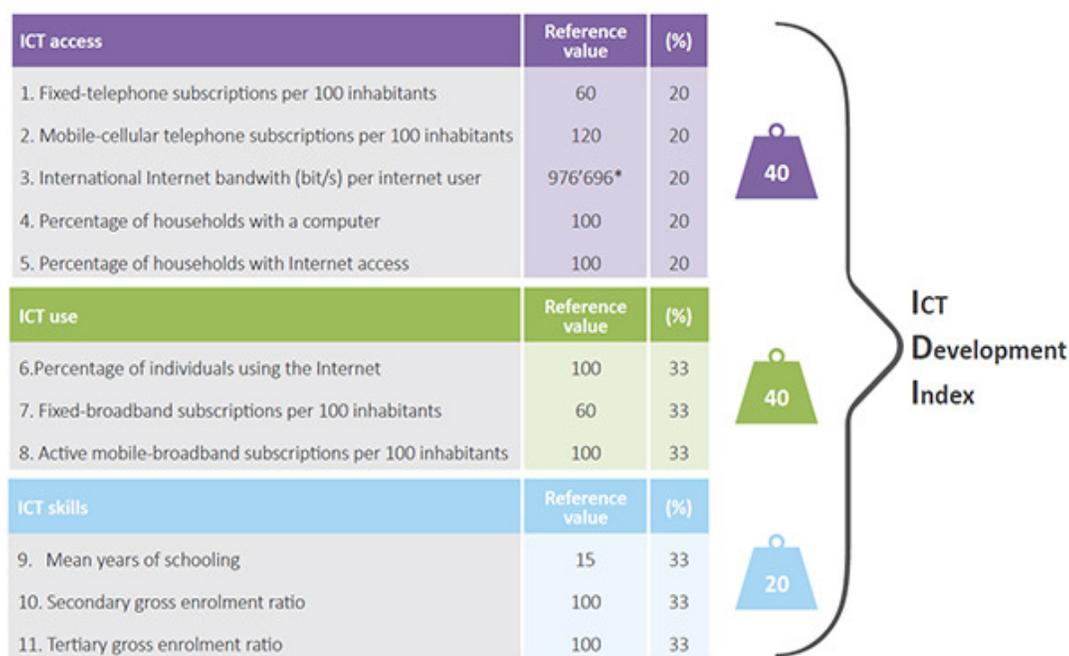
The main purpose of the IDI is to measure:

- the level and evolution over time of ICT developments within countries and the experience of those countries relative to others;
- progress in ICT development in both developed and developing countries;
- the digital divide, i.e. differences between countries in terms of their levels of ICT development; and

- the development potential of ICTs and the extent to which countries can make use of them to enhance growth and development in the context of available capabilities and skills.⁵

The Index is designed to be global and reflect changes taking place in countries at different levels of ICT development. Looking at the regional level, it is possible to highlight trends and identify why some countries are performing better than or lagging behind others. The analysis covers the Arab region and highlights the performance of Arab countries that have significantly improved their position in the global IDI ranking since 2010.

Figure 15: An illustration of the ICT Development Index



Source: International Telecommunication Union

⁵ <https://www.itu.int/en/ITU-D/Statistics/Pages/publications/mis2017/methodology.aspx>

Table 2: IDI 2015-2016 Regional Rank: Arab States Area

Economy	Regional Rank 2016	World Rank 2016	IDI 2016	World Rank 2015	IDI 2015	Variance in World Rank 2015-2016
Bahrain	1	29	7,46	28	7,42	1-
The United Arab Emirates	2	38	7,11	35	6,96	3-
Saudi Arabia	3	45	6,90	38	6,88	7-
Qatar	4	46	6,90	43	6,78	3-
Kuwait	5	53	6,54	48	6,45	5-
Oman	6	59	6,27	58	6,04	1-
Lebanon	7	66	5,93	61	5,91	5-
Jordan	8	85	5,06	89	4,67	4
Tunisia	9	95	4,83	95	4,49	0
Morocco	10	96	4,60	98	4,26	2
Egypt	11	100	4,44	97	4,26	3-
Algeria	12	103	4,40	112	3,74	9
Palestine	13	106	4,28	103	4,12	3-
Syria	14	122	3,32	120	3,21	2-
Sudan	15	139	2,60	134	2,65	5-
Mauritania	16	151	2,12	154	1,90	3
Yemen	17	155	2,02	151	1,96	4-
Djibouti	18	161	1,82	160	1,73	1-
Average			4,81		4,63	

Source: International Telecommunication Union.

Note: Palestine is not a Member State of the ITU. The status of Palestine in the Union is governed by Resolution 99 (Rev. Busan, 2014) of the ITU Plenipotentiary Conference.