

Private Participation in Infrastructure in OIC Countries



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SESRIC

Kudüs Cad. No: 9, Diplomatik Site, 06450 ORAN, Ankara, Turkey

Tel: +90-312-468 6172 (4 Lines) Fax: +90-312-467 3458

E-mail: oicankara@sesric.org Web: www.sesric.org

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1. Introduction

A well-functioning and efficient infrastructure is highly instrumental for economic and social development. It increases living standards, attracts more businesses, and supports the production process of agricultural and manufactured goods by reducing costs. It also helps economic integration and facilitates trade as it eases the access to goods and services. Better transport and communication links make it easier for many countries to access international markets, which is particularly of significant importance for landlocked countries. Infrastructure projects also have a stimulus effect in the economy and they are very likely to increase employment, not just for short term construction purposes but also for the longer term, as infrastructure facilities are believed to draw more companies in their areas. Following a demand-side approach, it can also be said that infrastructure projects create a demand for skilled labour and intermediary materials to be used as inputs. Responding to this demand, initiatives such as labour training or local production of intermediary materials can be undertaken, which will further benefit the economy in the long term.

Bearing the above mentioned advantages in mind, today's developed nations had been investing in infrastructure for many years. However, lack of infrastructure still remains a major challenge in developing and least developed countries. Some of the biggest challenges to investment in infrastructure in these countries include lack of government resources, inefficiency of state owned enterprises, unskilled labour and low levels of technology. To remedy this problem, private companies are increasingly given infrastructure projects by different contract types, varying according to the necessities of the particular project and country.

Using the World Bank Private Participation in Infrastructure (PPI) Database, this report analyses the tendency of private participation in infrastructure in 49 OIC member countries¹ between 1990 and 2011 and compares the position of OIC countries with non-OIC developing countries to make assessments on the number of projects, total investments and deal types. However, the average performance of non-OIC developing countries are highly influenced by four leading emerging

¹ The data are not available for Bahrain, Brunei, Kuwait, Libya, Oman, Qatar, Saudi Arabia, United Arab Emirates. The database also does not cover developed countries.

economics, namely Brazil, Russia, India, and China (BRIC countries). High infrastructure investment in these countries induces marked differences in the amount of private participation in infrastructure and number of projects. For that reason, the average performance of OIC countries is compared with non-OIC developing countries as well as non-OIC developing countries excluding BRIC (henceforth non-OIC/non-BRIC).

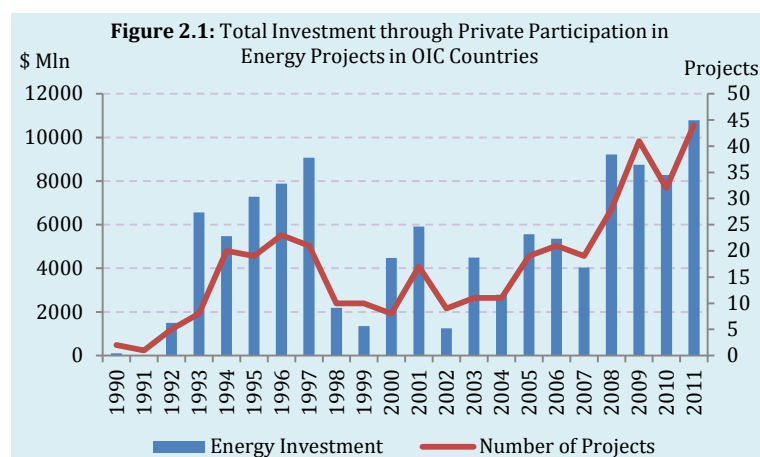
According to the database, there are four major areas for infrastructure investment, which are also accordingly considered in this report. These are energy, transport, telecom and water and sewage. These infrastructure investments are also classified under four contract types, including management and lease contracts, concessions, Greenfield projects, and divestitures. Management and lease contracts leave the operation and management of a state owned facility to a private entity while the state still remains the decision maker. Concessions also leave the management to a private entity; however the private entity bears an important part of investment risk. Greenfield projects take place when a private entity or a public-private joint venture builds a new project and then operates it for a fixed period. Divestitures on the other hand are privatization projects, they occur when private companies buy shares of a state owned enterprise (see World Bank 2013a for detailed definitions).

Finally, a statistical appendix is attached to the report. It includes the dataset covering the amount of total investment and number of projects by deal types between 1990 and 2011 through private participation in energy, telecom, transport and water and sewage infrastructure in developing OIC member countries.

2. Private Participation in Energy Infrastructure

Energy infrastructure covers natural gas and electricity generation, transmission and distribution (World Bank 2013a). Between 1990 and 2011, 379 private participation in energy infrastructure projects reached contractual or financial closing in 49 OIC countries, comprising of investment commitments of \$112.3 billion.

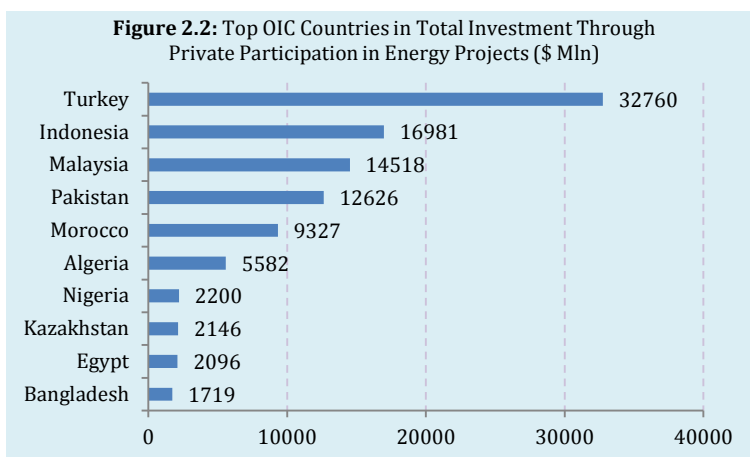
Total private investment in the OIC countries increased more than three-fold in 1993 with the impact of the increase of private activities in Morocco, Malaysia and Algeria, which involved investment commitment of \$5.9 billion, 90% of total private investment in OIC countries (Figure 2.1). After this rising tendency between 1994 and 1997, however, the implemented number of projects fell by 50% in 1998 explained by large decline in investments of major OIC countries. With the global trend of credit expansion between 2003 and 2007, large energy projects began to be implemented in OIC member



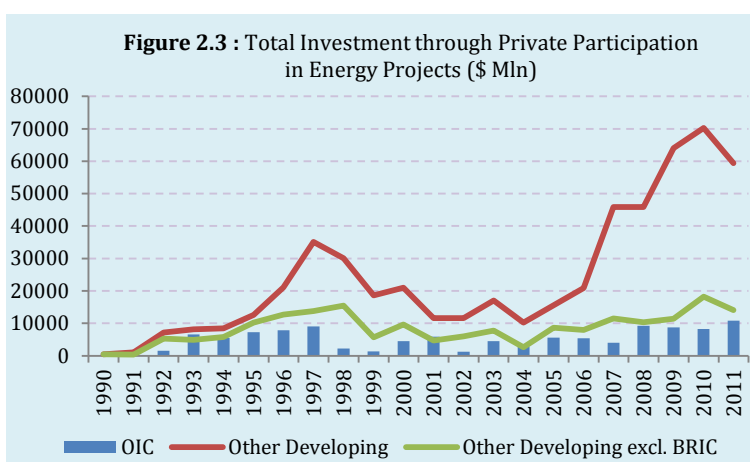
countries again. This positive trend ended when private investment in 2008 had a slowdown after the global financial crisis. With the moderate recovery stimulus in world economy, it then reached to its historically highest level of \$10.8 billion in 2011.

Energy investment in OIC countries between 1990 and 2011 was concentrated in five countries

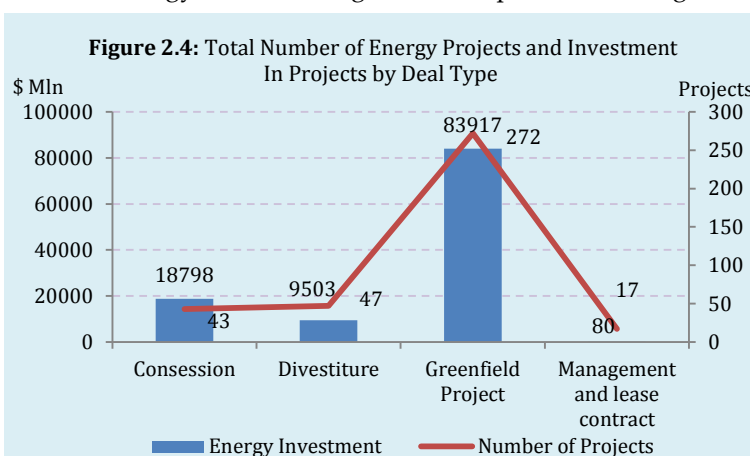
that made up 77% of total private participation in energy infrastructure on their own. Turkey had by far the most active private sector with 94 projects worth \$32.8 billion in total, which constituted 29% of total investment in OIC countries (Figure 2.2). Turkey was followed by Indonesia, Malaysia, Pakistan and Morocco, which represented the remaining 48% of total investment with 125 projects. Twelve countries located in Central Asia and Sub-Saharan Africa reported no energy infrastructure projects at all.



Between 1990 and 1996, OIC, non-OIC and non-OIC/non-BRIC countries have indicated similar progress of development in private energy infrastructure investment. However, with enormous growth in private activity in BRIC countries in 1997 and 1998, total non-OIC investment has sharply increased. India, Russia, China, and Brazil spent \$36 billion in 1997 and 1998 for investment in total, which was \$6.8 billion more than the total investment of other non-OIC countries (Figure 2.3). However, following the drastic fall in investments in BRIC countries after 2000 and comparatively low private activity level in the rest of non-OIC countries, the total infrastructure investment through private participation has declined from \$35.1 billion in 1997 to \$10.3 million in 2004 in non-OIC developing countries. With \$240 billion total private investment in BRIC countries in seven years during 2005-2011, total investment in non-OIC countries saw a huge rise and reached a total of \$322 billion during this period, while OIC countries witnessed \$52 billion investment in energy sector during the same period. Although OIC member countries had been able to show similar trends with non-OIC/non-BRIC countries, the total investment gap between OIC and non-OIC countries grew massively especially after the growth of private activities started to take off in BRIC countries after 2004. At a time when other countries experienced a fall in total investments, total investment in



energy infrastructure through private participation in OIC countries saw a huge rise and reached a total of \$322 billion during this period, while OIC member countries had been able to show similar trends with non-OIC/non-BRIC countries, the total investment gap between OIC and non-OIC countries grew massively especially after the growth of private activities started to take off in BRIC countries after 2004. At a time when other countries experienced a fall in total investments, total investment in

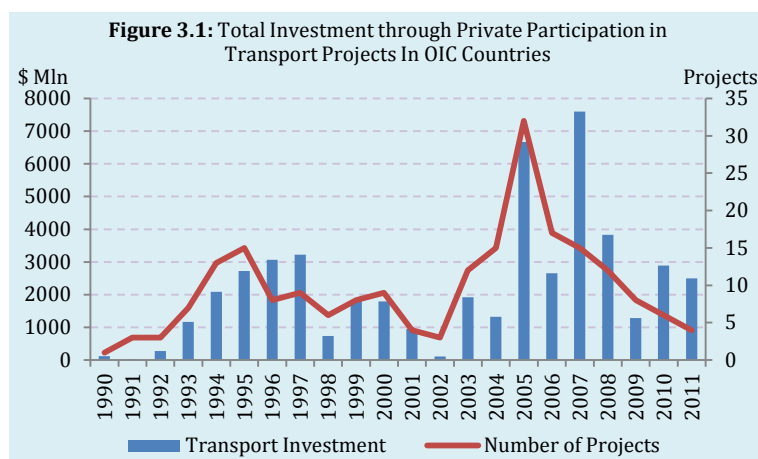


OIC countries exceeded for the first time the \$10 billion threshold and reached \$10.8 billion in 2011.

Private investments in energy projects in OIC countries were concentrated mostly on Greenfield projects which accounted for 75% of investment worth \$83.9 billion (Figure 2.4). Concessions were the second most widespread type of private participation, accounting for \$18.8 billion of investment, 16.7% of the total OIC investment between 1990 and 2011. Although by number of projects, divestitures were slightly above concessions (four more projects) their contribution has reached only \$9.5 billion, explaining 8.5% of total investment in OIC countries.

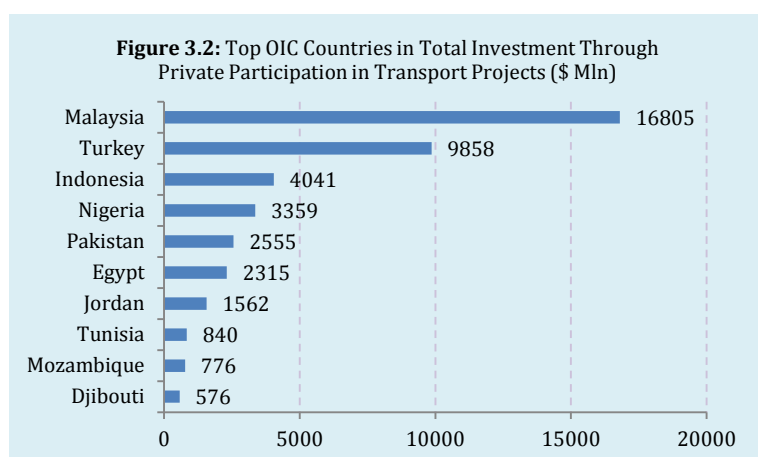
3. Private Participation in Transport Infrastructure

Transport infrastructure consists of airport runways and terminals, railways, toll roads, bridges, highways, tunnels, port infrastructure, terminals, superstructures, and channels (World Bank 2013a). It plays a significant role in economic development through improving the freight industry and transfer of agricultural, manufacture products, raw and intermediary materials. During the period of 1990-2011, 210 private transport infrastructure projects took place in OIC countries, involving investment commitments of \$48.7 billion.



There has been a progressive growth in private investment until 1997 owing to high private participation in Malaysia, which accounted for 80% of total OIC investment during 1993-1997 with approximately \$9.8 billion total investment (Figure 3.1). With the slowdown of private activities in major OIC countries, especially in Malaysia and Turkey, total annual investments remained below \$2

billion during 1998-2004 and annual private investment fell even below \$110 million in 2002. However, with the stimulus impact of Turkey, Nigeria, Malaysia and Indonesia during 2005 and 2007 with totally \$11.4 billion in private transport investment explaining 67% of total OIC investment, total private activity in OIC member countries increased to \$6.7 and \$7.6 billion in 2005 and 2007,

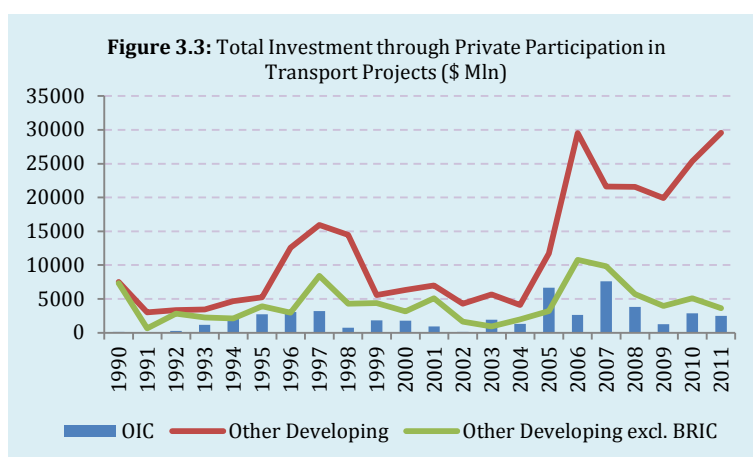


respectively. The number of projects and the volume of investments fell after 2007, pointing out the adverse effects of the financial crisis. In 2009, total annual investment in OIC countries declined to \$1.3 billion, but increased again to \$2.5 billion in 2011.

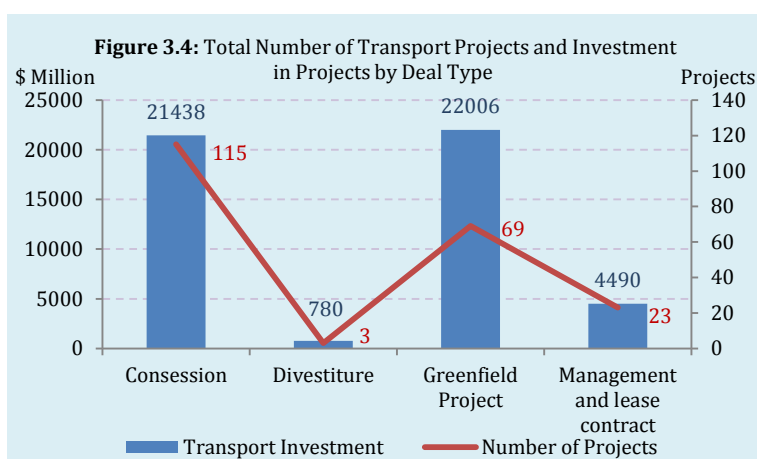
From 1990 to 2011, private participation in transport

infrastructure in OIC countries was concentrated mainly in two countries, Malaysia and Turkey, accounting for 55% of total private transport infrastructure investment with 65 projects (Figure 3.2). Malaysia had the largest amount of private investment in transport infrastructure by implementing 35% of total OIC projects, \$16.8 billion in value. Private transport infrastructure investment in Turkey represented 20.2% of total investment in 49 OIC countries and it was worth \$9.8 billion. Despite major private participation in major OIC countries, 15 countries located in central Asia and sub-Saharan Africa have reported no transport infrastructure project between 1990 and 2011.

While private investment in transport in OIC countries followed an upward trend during 1990-1997, non-OIC developing and non-OIC/non-BRIC developing countries have displayed investment growth in transport infrastructure at a rather slow rate between 1990 and 1995 (Figure 3.3). In 1996, although non-OIC/non-BRIC countries had total investment commitments of \$3 billion, only Brazil and China had \$4.4 and \$5.1 billion private investments in transport infrastructure projects, respectively, explaining the drastic rise in average investment in non-OIC countries (OIC and non-OIC/non-BRIC countries accounted for less than two-fifth of total investment in the same year). With the sharp fall of private activities in BRIC countries after 1998, average total transport infrastructure investment in other developing countries remained below \$5.5 billion until 2004. With the global credit expansion trend after 2005, BRIC countries as well as other developing countries excluding BRIC saw an ever higher growth in private activity. While total investment of non-OIC/non-BRIC developing countries peaked to \$10.8 billion in 2006, India and China alone had a total of \$18.4 billion for transport infrastructure investment in the same year. However, during the credit crunch between 2007 and 2009, private investment level experienced rapid downturn in much of the world. In 2011, total private investment in other developing countries exceeded its previous peak of \$29.5 billion in 2006 and reached \$29.6 billion, its highest level throughout the period under consideration.



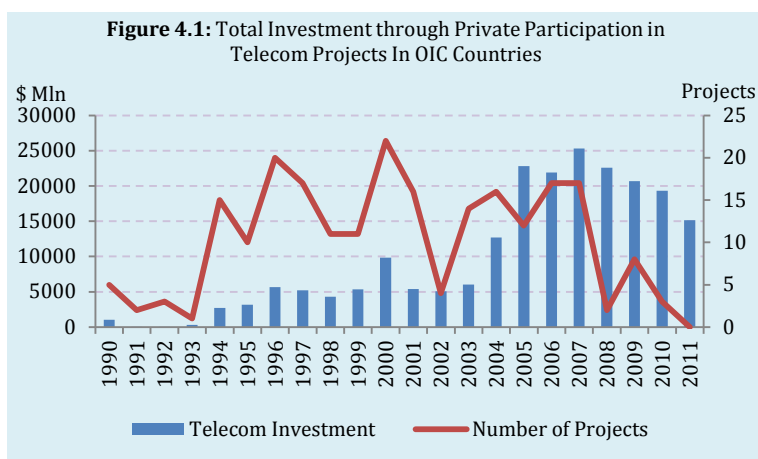
In terms of classification of investment in transport projects by deal types, investment in OIC countries were mostly concentrated on both concession and Greenfield contracts with similar levels. Greenfield and concession contracts in total made up 89% of total OIC investment with 184 projects and a total investment commitment of \$43.4 billion (Figure 3.4). Management



and lease contracts made up 9% of private activity with 23 projects while divestiture contracts had only 3 projects in very small amount of investment.

4. Private Participation in Telecom Infrastructure

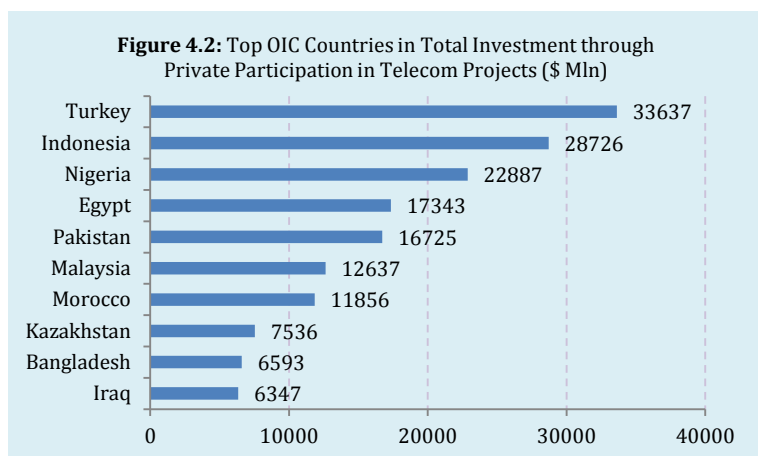
Telecom infrastructure involves fixed or mobile local telephony, domestic long distance telephony, and international long-distance telephony is quite significant bearing in mind the strong role IT technology and e-commerce has in business (World Bank 2013a). Between 1990 and 2011, telecom infrastructure projects with private activity reached contractual or financial closing in OIC member countries, covering investment commitments of \$214.6 billion through 226 projects.



Over the last two decades, private activity in telecom infrastructure has indicated substantial and sustained growth in OIC countries. Private investment gained momentum firstly in Indonesia, and then followed by Malaysia and Turkey during 1990's. Total investment in these three countries accounted for 67% of total investment in OIC countries during 1990's. After 2003, total investments gained further

momentum in OIC countries and reached \$22.8 billion in 2005 and \$25.3 billion in 2007. Total private investment in OIC countries in telecom infrastructure during 1992-2001 was worth \$42 billion (Figure 4.1). This number reached \$172 billion during the period 2002-2011. During this period, Nigeria, Pakistan and Egypt also witnessed significant private investment in telecom sector.

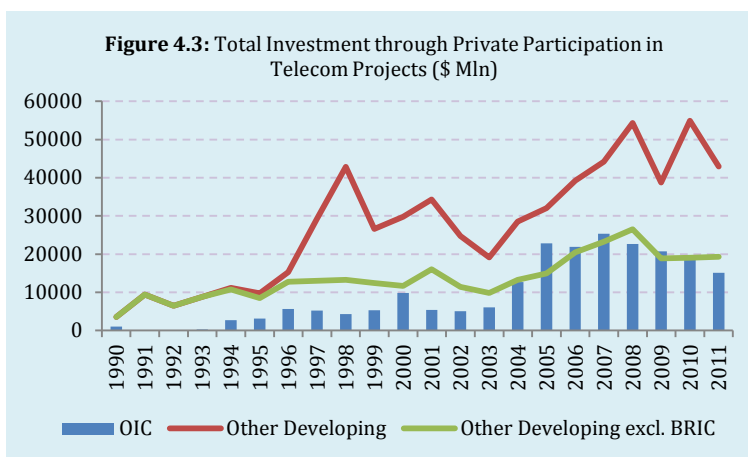
Between 1990 and 2011, investment in telecom infrastructure in OIC countries was mostly located in five member counties accounting for 56% of total telecom infrastructure investment (Figure 4.2). Turkey was the leading country with \$33.6 billion, 16% of total private investment in 49 OIC countries. It is followed by Indonesia, Nigeria, Egypt and Pakistan, together represented 40% of total OIC investment by implementing 47 projects. Nearly all OIC member countries had private participation in the telecom infrastructure sector since telecom infrastructure projects requires high



levels of technology and skilled labour which can sometimes be hard to find in less competitive state owned enterprises.

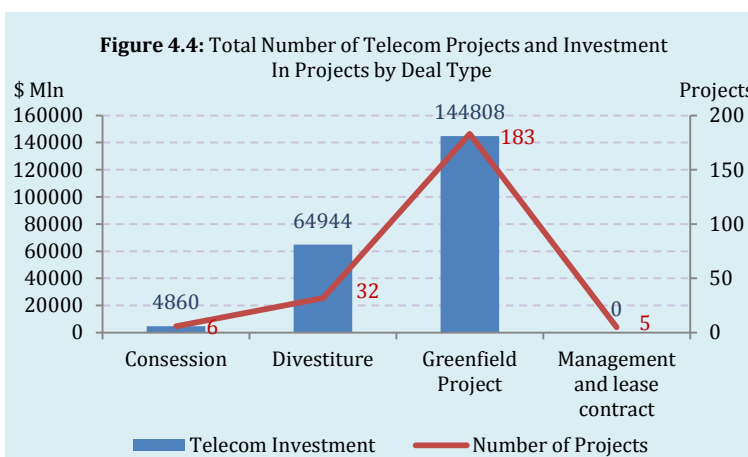
When the performance of OIC countries is compared with other country groups, a similar trend can be observed. In terms of total investment in telecom projects, non-OIC/non-BRIC developing countries have indicated similar

annual total investment levels with OIC member countries (Figure 4.3). After 1996, with the acceleration of private activities in telecom infrastructure in BRIC countries, non-OIC total investment has more than doubled by increasing from \$15.3 billion in 1996 to \$42.9 billion in 1998. Moreover, with \$76 billion private activity observed in Brazil during 1996-2003, a single country has recorded 50% more than the



total investment of \$47 billion in OIC countries during the same period. After 2003, all country groups witnessed upward trends in total private investments with wide-ranging technological improvement in the telecom sector. It is, however, noteworthy to observe a somewhat higher rise in investment in OIC and non-OIC developing countries after 2003 compared to non-OIC/non-BRIC developing countries.

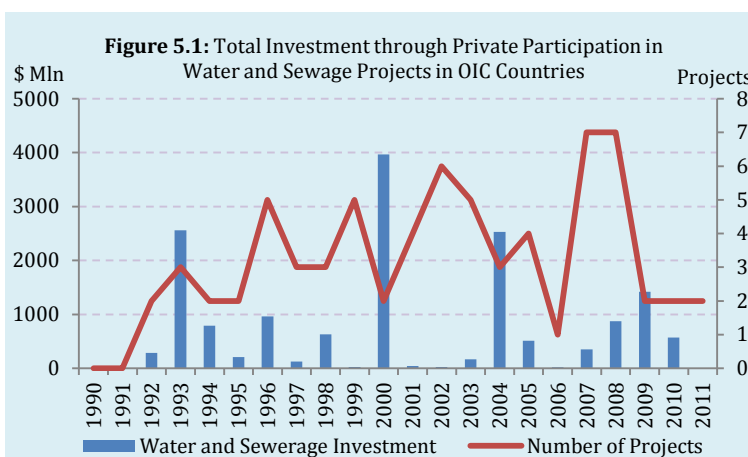
The private activity in telecom infrastructure in OIC countries was again concentrated on Greenfield projects, explaining 67% of total OIC investment with 183 projects worth \$144.8 billion in total between 1990 and 2011 (Figure 4.4). Divestiture contracts were the second most prevailing type of private participation accounting for 30% of the total OIC with 32 implemented projects worth \$64.9 billion.



Management & lease and concession contracts represented only 2% of the investment in OIC countries.

5. Private Participation in Water and Sewage Infrastructure

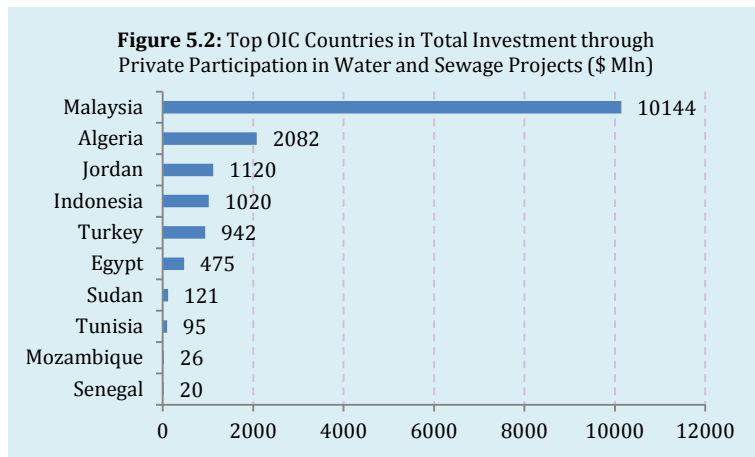
Making possible drinkable water generation, distribution, sewage collection and treatment; water and sewage infrastructure is not only a substantial element in determining the achievement of agricultural and manufacturing activities but also essential to providing the decent life standards for human and economic development (World Bank 2013a). During the period



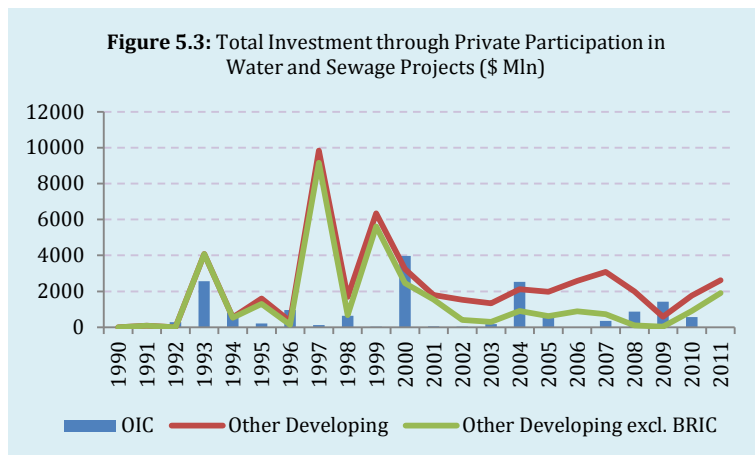
1990-2011, 70 private water and sewage infrastructure projects reached contractual or financial closing in OIC countries, comprising investment commitments of \$16 billion since 1990.

From 1990 to 2011, water and sewage investment in OIC countries was highly volatile, mainly led by Malaysia, Indonesia, Algeria and Jordan. Private activities in Malaysia during 1993, 2000 and 2004 with totally \$9 billion investment explained 99% of gigantic growth during these years (Figure 5.1). Other growth episodes during 1996 and 2009 took place through private investments in Turkey, Algeria and Jordan with totally \$2.4 billion, which accounts for 99% of total investment in OIC countries for which data are available.

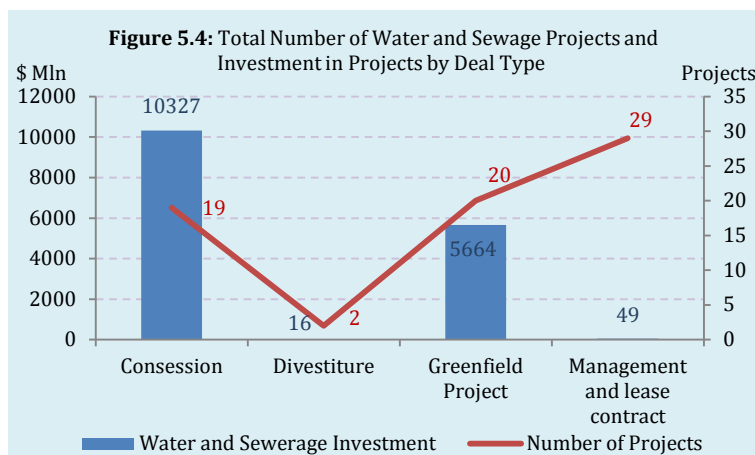
Private participation in water and sewage infrastructure in OIC countries has been implemented



mainly in Malaysia with 16 projects, explaining 63% of total OIC investment. Algeria, Jordan, Indonesia and Turkey together accounted for 32% of private activity in OIC countries with totally \$5.2 billion investment (Figure 5.2). 31 of 49 OIC countries, on the other hand, had no water and sewage projects through private participation during 1990-2011.



Similar to the OIC countries, annual total private investment in the non-OIC as well as non-OIC non-BRIC developing countries was highly correlated with private activity in few countries between 1990 and 2011. Non-OIC and non-OIC/non-BRIC countries saw similar total private participation levels until 2001 because of low investment levels in BRIC countries. Non-OIC developing countries saw a high growth during 1993, 1997 and 1999 (Figure 5.3). In 1993 and 1997, Philippines and Argentina accounted for 89% of total non-OIC investment with investments worth \$12.4 billion. Moreover, \$4 billion private participation in Chile explained the 63% of growth in annual average investment in the non-OIC



developing countries in 1999. As private investment in BRIC countries accelerated during 2006-2011, the private investment gap between non-OIC and non-OIC/non-BRIC countries enlarged. While \$8 billion was spent to finance water and sewage projects in BRIC countries, other non-OIC countries invested only \$4.6 billion between 2006 and 2011.

Classification of investments in terms of deal types reveal that investment in water and sewage projects in OIC countries was mostly dominated by concession contracts (19 projects) of \$10.3 billion in total value, 64% of total investment in OIC countries (Figure 5.4). The second most implemented type of projects was Greenfield projects worth \$5.7 billion in total. The remaining type of financial contracts had very low amounts of investment compared to the concession and Greenfield types of projects.

6. Concluding Remarks

As far as developing countries are concerned, poor state-enterprises face low technology levels, high costs of unskilled labour and lack of intermediary materials which makes them unable to implement enough infrastructure projects for long years. The larger portion of private investment in infrastructure has been observed especially in more industrial countries during the period 1990-2011. Relatively more industrialised OIC countries such as Turkey, Malaysia and Indonesia have had the biggest volumes of private infrastructure investment in general. This is due to the fact that these countries possess necessary resources to undertake private infrastructure investment such as higher human capital levels or more financial resources. They also have more incentive to invest in infrastructure as better infrastructure further supports the development of industry.

In 49 OIC countries, 885 privately funded infrastructure projects took place, making up \$391.7 billion between 1990 and 2011. \$214.6 billion in OIC countries was utilized to finance telecom infrastructure projects, accounting for 55% of total investment in OIC countries. The second biggest investment was made in energy infrastructure involving \$112.3 billion private investment with 379 projects. Transport and water infrastructure investment reached together to totally \$64.8 billion, pointing out the disproportionality of private infrastructure investment.

Among the 49 countries, Malaysia, Turkey and Indonesia have been the leading OIC countries through conducting 307 infrastructure projects, involving private investment of \$182 billion, %46 of total OIC investment. Having higher income levels, human capital and better conditions for doing business have promoted private investments in infrastructure.

Many OIC countries, located mostly in sub-Saharan Africa and central Asia, on the other hand, lag behind their peers in terms of private investment in infrastructure. Out of 49 OIC member countries, 31 countries reported no private infrastructure projects at all for water and sewage, followed by 15 in transport, 12 in energy and 2 in telecom. Djibouti, Mauritania, Somalia, Suriname and Turkmenistan had no private activity in three out of four categories.

The greatest progress has been maintained through Greenfield projects by investment commitments of \$256.4 billion, accounting for 65% of total OIC investments, meaning that most of the projects were newly initiated, having no prior infrastructure to build on. With the increasing of economic decentralization and privatisation policies, divestiture contracts were the second most widespread

deal type in private participation involving investment of \$75.2 billion, 19% of total investments in OIC countries.

This report concludes that, promoting water and energy infrastructure accelerates efficiency in agricultural and manufacture production, while improving telecom and transport infrastructure also strengthens economic integration of poor and landlocked areas. Having a bigger industrial sector and higher income levels, on the other hand, promote the density of private infrastructure projects in emerging countries as they increase growth and develop operational performance.

Improving coordination among the government and private enterprises and institutions is the main principle for having higher returns from existing infrastructure and developing infrastructure in a country. Therefore, a set of missions need to be completed by public institutions, state-owned and private enterprises in order to have efficient infrastructure with high revenues and to increase private participation in infrastructure:

- Efficient infrastructure investments should be prioritized for the high returns they bring. Therefore, applying low-cost technology in infrastructure projects and having reforms in institutions for improving operational performance in income distribution, collection of revenue and determining the staff number are significant investment areas for increasing infrastructure efficiency.
- Greater maintenance expenditure will limit waste and inefficiency in infrastructure spending springing from additional infrastructure investments. Rehabilitation and preservation of infrastructure assets are more likely to bring higher returns than obtaining new technological instruments and intermediary materials.
- Having regulatory and administrative reforms to decrease freight tariffs and costs or promoting multimodal transportation networks can improve economic integration of an area and hence, bring higher returns through accessibility to trade channels, increasing the feasibility of infrastructure projects for private firms, which prioritize cost-benefit analysis instead of social benefit.
- Many developing OIC countries are too small to develop infrastructure on their own. Therefore, integrating energy, water and transport infrastructure to urban regions with the assistance of more developed countries will be a more efficient option as it would reduce the cost of doing trade and enable people to have access to large markets.
- Institutional reforms through improving governance and accountability in state-owned and private enterprises can reduce inefficiency of operational performance in enterprises.

References

World Bank (2013a) World Bank Private Participation in Infrastructure Database Glossary Available: http://ppi.worldbank.org/resources/ppi_glossary.aspx

World Bank (2013b) Data retrieved in May 2013, from World Bank Private Participation in Infrastructure Database. Available: <http://ppi.worldbank.org/index.aspx>

A.1: Private Participation in Energy Infrastructure

Country	Total Number of Energy Projects by Deal Types					Total Investment In Energy Projects By Deal Type (\$ Million)				
	Concession	Divestiture	Greenfield Projects	Management & Lease Contract	Total Number of Projects	Concession	Divestiture	Greenfield Projects	Management & Lease Contract	Total Investment In Projects
Afghanistan	0	0	1	0	1	0	0	1.6	0	1.6
Albania	1	4	2	0	7	8	435.4	276.2	0	719.6
Algeria	0	0	5	0	5	0	0	5582	0	5582
Azerbaijan	3	0	0	0	3	375.2	0	0	0	375.2
Bangladesh	0	3	26	0	29	0	48.8	1670.5	0	1719.3
Benin	0	0	1	0	1	0	0	590	0	590
Burkina Faso	0	0	1	0	1	0	0	5.6	0	5.6
Cameroon	1	0	2	0	3	531.8	0	468	0	999.8
Chad	0	0	0	1	1	0	0	0	0	0
Comoros	1	0	0	0	1	0	0	0	0	0
Cote d'Ivoire	1	0	4	0	5	39.6	0	341.6	0	381.2
Djibouti	0	0	0	0	0	0	0	0	0	0
Egypt	0	0	6	0	6	0	0	2095.7	0	2095.7
Gabon	1	0	2	1	4	294	0	0	0	294
Gambia	0	0	0	2	2	0	0	0	0	0
Guinea	1	0	0	0	1	36.4	0	0	0	36.4
Guinea-Bissau	0	0	0	1	1	0	0	0	0	0
Guyana	0	1	0	0	1	0	50	0	0	50
Indonesia	0	2	31	1	34	0	719.1	16261.8	0	16980.9
Iran	0	1	3	0	4	0	0	808.2	0	808.2
Iraq	0	0	3	0	3	0	0	1070	0	1070
Jordan	0	2	2	0	4	0	224	765	0	989
Kazakhstan	2	22	0	3	27	623.2	1522.7	0	0	2145.9
Kyrgyz Republic	0	0	0	0	0	0	0	0	0	0
Lebanon	0	0	0	0	0	0	0	0	0	0
Malaysia	0	4	24	0	28	0	3805	10713	0	14518
Maldives	0	0	0	0	0	0	0	0	0	0
Mali	1	0	0	1	2	365.9	0	0	0	365.9
Mauritania	0	0	0	0	0	0	0	0	0	0
Morocco	5	0	3	0	8	6607	0	2720	0	9327
Mozambique	1	0	1	0	2	5.8	0	1200	0	1205.8
Niger	0	0	0	0	0	0	0	0	0	0
Nigeria	1	1	7	0	9	238	280	1682	0	2200
Pakistan	0	5	50	0	55	0	2150.2	10475.4	0	12625.6
Palestine	0	0	1	0	1	0	0	150	0	150
Senegal	1	0	4	0	5	65	0	174.3	0	239.3
Sierra Leone	0	0	2	0	2	0	0	31.2	0	31.2
Somalia	0	0	0	0	0	0	0	0	0	0
Sudan	0	0	0	0	0	0	0	0	0	0
Suriname	0	0	0	0	0	0	0	0	0	0
Syria	0	0	0	0	0	0	0	0	0	0
Tajikistan	1	0	2	0	3	16	0	940	0	956
Togo	1	0	2	1	4	67.7	0	780	0	847.7
Tunisia	0	0	4	0	4	0	0	948	0	948
Turkey	17	2	69	6	94	9422.7	267.6	22990.5	80	32760.7
Turkmenistan	0	0	0	0	0	0	0	0	0	0
Uganda	4	0	12	0	16	102.1	0	1160.4	0	1262.5
Uzbekistan	0	0	0	0	0	0	0	0	0	0
Yemen	0	0	2	0	2	0	0	15.8	0	15.8
OIC Countries	43	47	272	17	379	18,798.3	9,502.8	83,916.7	80.01	112,297.9
Non-OIC Countr.	159	358	1,381	26	1,924	81,005.5	109,470.9	345,244.5	370.7	536,091.7
Non-OIC ex. BRIC	80	160	824	8	1,072	55,218.9	58,924.9	234,366.3	156	348,666.2
World	282	565	2,477	51	3,375	155,022.8	177,898.7	663,527.6	606.7	997,055.8

Source: World Bank and PPIAF, PPI Project database

A.2: Private Participation in Transport Infrastructure

Country	Total Number of Transport Projects by Deal Types					Total Investment In Transport Projects By Deal Type (\$ Million)				
	Concession	Divestiture	Greenfield Projects	Management & Lease Contract	Total Number of Projects	Concession	Divestiture	Greenfield Projects	Management & Lease Contract	Total Investment In Projects
Afghanistan	0	0	0	0	0	0	0	0	0	0
Albania	1	0	0	0	1	308	0	0	0	308
Algeria	3	0	0	2	5	125	0	0	161	286
Azerbaijan	0	0	0	0	0	0	0	0	0	0
Bangladesh	0	0	0	5	5	0	0	0	0	0
Benin	0	0	1	0	1	0	0	489	0	489
Burkina Faso	1	0	0	0	1	63.3	0	0	0	63.3
Cameroon	2	0	0	1	3	120.8	0	0	0	120.8
Chad	0	0	0	0	0	0	0	0	0	0
Comoros	1	0	0	0	1	0.5	0	0	0	0.5
Cote d'Ivoire	2	0	2	1	5	91.3	0	290	36.4	417.7
Djibouti	1	0	2	1	4	50	0	526	0	576
Egypt	2	0	7	2	11	156.2	0	2159.2	0	2315.4
Gabon	3	0	0	1	4	227.9	0	0	0	227.9
Gambia	0	0	0	0	0	0	0	0	0	0
Guinea	1	0	0	0	1	159	0	0	0	159
Guinea-Bissau	0	0	0	0	0	0	0	0	0	0
Guyana	0	0	0	0	0	0	0	0	0	0
Indonesia	19	1	10	0	30	2150.3	371.9	1518.8	0	4041
Iran	0	0	0	0	0	0	0	0	0	0
Iraq	1	0	0	0	1	500	0	0	0	500
Jordan	3	0	0	1	4	1562	0	0	0	1562
Kazakhstan	1	0	1	1	3	231	0	31	0	262
Kyrgyz Republic	0	0	0	0	0	0	0	0	0	0
Lebanon	0	0	1	1	2	0	0	150	3	153
Malaysia	18	1	27	1	47	3625.7	383.3	12796.4	0	16805.5
Maldives	1	0	0	0	1	478	0	0	0	478
Mali	1	0	0	0	1	55.4	0	0	0	55.4
Mauritania	0	0	0	0	0	0	0	0	0	0
Morocco	0	0	2	0	2	0	0	400	0	400
Mozambique	7	0	0	2	9	775.6	0	0	0	775.6
Niger	0	0	0	0	0	0	0	0	0	0
Nigeria	24	0	2	0	26	3058.9	0	300	0	3358.9
Pakistan	3	0	6	0	9	843.3	0	1711.5	0	2554.8
Palestine	0	0	0	0	0	0	0	0	0	0
Senegal	3	0	0	0	3	453.4	0	0	0	453.4
Sierra Leone	1	0	0	0	1	130	0	0	0	130
Somalia	0	0	0	0	0	0	0	0	0	0
Sudan	1	0	0	0	1	30	0	0	0	30
Suriname	0	0	0	0	0	0	0	0	0	0
Syria	1	0	0	1	2	37	0	0	45	82
Tajikistan	0	0	0	0	0	0	0	0	0	0
Togo	0	0	2	1	3	0	0	571.9	0	571.9
Tunisia	1	0	0	0	1	840	0	0	0	840
Turkey	11	0	5	2	18	4741.5	0	871.8	4245	9858.3
Turkmenistan	0	0	0	0	0	0	0	0	0	0
Uganda	1	0	0	0	1	404	0	0	0	404
Uzbekistan	0	1	0	0	1	0	25	0	0	25
Yemen	1	0	1	0	2	220	0	190	0	410
OIC Countries	115	3	69	23	210	21,438.3	780.2	22,005.7	4,490.4	48,714.6
Non-OIC Countries	677	66	372	52	1,167	149,671.5	16,784.7	95,206.5	702.13	262,364.8
Non-OIC excl. BRIC	388	54	227	12	681	91,381.6	15,653.2	60,740.4	530.11	168,305.3
World	1,180	123	668	87	2,058	262,491.3	33,218.1	177,952.6	5,722.64	479,384.7

Source: World Bank and PPIAF, PPI Project database

A.3: Private Participation in Telecom Infrastructure

Country	Total Number of Telecom Projects by Deal Types					Total Investment In Telecom Projects By Deal Type (\$ Million)				
	Concession	Divestiture	Greenfield Projects	Management & Lease Contract	Total Number of Projects	Concession	Divestiture	Greenfield Projects	Management & Lease Contract	Total Investment In Projects
Afghanistan	0	0	5	0	5	0	0	1581.6	0	1581.6
Albania	0	2	2	0	4	0	648.2	772.6	0	1420.8
Algeria	0	0	3	0	3	0	0	5798.5	0	5798.5
Azerbaijan	0	0	4	0	4	0	0	1987	0	1987
Bangladesh	0	0	12	0	12	0	0	6592.7	0	6592.7
Benin	0	0	5	0	5	0	0	1120.3	0	1120.3
Burkina Faso	0	1	2	0	3	0	572.6	509.1	0	1081.7
Cameroon	0	1	1	0	2	0	954	639.7	0	1593.7
Chad	0	1	3	0	4	0	303	381.4	0	684.4
Comoros	0	0	0	0	0	0	0	0	0	0
Cote d'Ivoire	0	1	5	0	6	0	760.2	1707.6	0	2467.8
Djibouti	0	0	0	0	0	0	0	0	0	0
Egypt	0	2	4	0	6	0	6029.7	11313.7	0	17343.4
Gabon	0	1	3	0	4	0	93.4	375.7	0	469.1
Gambia	0	1	2	0	3	0	35	6.6	0	41.6
Guinea	0	1	5	0	6	0	130.3	430.2	0	560.5
Guinea-Bissau	0	0	2	0	2	0	0	126.9	0	126.9
Guyana	0	1	1	0	2	0	177.2	37	0	214.2
Indonesia	5	3	9	0	17	4825	12437.8	11463.4	0	28726.2
Iran	0	1	4	0	5	0	370	2859.4	0	3229.4
Iraq	0	0	4	0	4	0	0	6346.6	0	6346.6
Jordan	0	1	4	0	5	0	1319.1	1597.6	0	2916.7
Kazakhstan	0	1	4	0	5	0	3801.1	3735.3	0	7536.4
Kyrgyz Republic	0	1	6	0	7	0	140.2	189.2	0	329.4
Lebanon	0	0	2	3	5	0	0	673.8	0	673.8
Malaysia	0	1	6	0	7	0	3498.4	9138.2	0	12636.6
Maldives	0	0	1	0	1	0	0	70.1	0	70.1
Mali	0	1	1	0	2	0	460	688.1	0	1148.1
Mauritania	0	1	2	0	3	0	237.1	222.1	0	459.2
Morocco	0	1	2	0	3	0	7880.6	3975.2	0	11855.8
Mozambique	0	0	3	0	3	0	0	975.8	0	975.8
Niger	0	1	3	0	4	0	63	483.8	0	546.8
Nigeria	0	1	16	1	18	0	750	22136.6	0	22886.6
Pakistan	0	1	5	0	6	0	5331.7	11392.9	0	16724.6
Palestine	0	0	3	0	3	0	0	1245.4	0	1245.4
Senegal	0	1	2	0	3	0	1982	628	0	2610
Sierra Leone	0	0	4	0	4	0	0	220.8	0	220.8
Somalia	0	0	9	0	9	0	0	13.4	0	13.4
Sudan	0	1	4	0	5	0	474.3	2900	0	3374.3
Suriname	0	0	1	0	1	0	0	60	0	60
Syria	0	0	2	0	2	0	0	1030.7	0	1030.7
Tajikistan	0	0	5	0	5	0	0	255.5	0	255.5
Togo	0	0	1	0	1	0	0	95.6	0	95.6
Tunisia	0	1	2	0	3	0	2973	1730.3	0	4703.3
Turkey	0	1	3	0	4	0	13011	20625.8	0	33636.8
Turkmenistan	0	0	1	0	1	0	0	222.5	0	222.5
Uganda	0	1	5	0	6	0	297.5	2269	0	2566.5
Uzbekistan	0	0	7	0	7	0	0	3212.9	0	3212.9
Yemen	1	1	3	1	6	35	213.6	969.5	0	1218.1
OIC Countries	6	32	183	5	226	4,860	64,943.9	144,808.3	0	214,612.3
Non-OIC Countries	3	163	428	2	596	741.9	255,394.3	349,873.3	0	606,009.5
Non-OIC excl. BRIC	0	113	150	0	263	0	135,504.9	166,904.5	0	302,409.4
World	9	308	761	7	1,085	5,601.92	455,843.1	661,586.1	0	1,123,031.2

Source: World Bank and PPIAF, PPI Project database

A.4: Private Participation in Water and Sewage Infrastructure

Country	Total Number of Water and Sewage Projects by Deal Types					Total Investment In Water and Sewage Projects By Deal Type (\$ Million)				
	Concession	Divestiture	Greenfield Projects	Management & Lease Contract	Total Number of Projects	Concession	Divestiture	Greenfield Projects	Management & Lease Contract	Total Investment In Projects
Afghanistan	0	0	0	0	0	0	0	0	0	0
Albania	1	0	0	2	3	8	0	0	0	8
Algeria	0	0	9	5	14	0	0	2082	0	2082
Azerbaijan	0	0	0	1	1	0	0	0	0	0
Bangladesh	0	0	0	0	0	0	0	0	0	0
Benin	0	0	0	0	0	0	0	0	0	0
Burkina Faso	0	0	0	0	0	0	0	0	0	0
Cameroon	0	0	0	1	1	0	0	0	0	0
Chad	0	0	0	0	0	0	0	0	0	0
Comoros	0	0	0	0	0	0	0	0	0	0
Cote d'Ivoire	0	0	0	1	1	0	0	0	0	0
Djibouti	0	0	0	0	0	0	0	0	0	0
Egypt	0	0	1	1	2	0	0	475	0	475
Gabon	0	0	0	0	0	0	0	0	0	0
Gambia	0	0	0	0	0	0	0	0	0	0
Guinea	0	0	0	0	0	0	0	0	0	0
Guinea-Bissau	0	0	0	0	0	0	0	0	0	0
Guyana	0	0	0	1	1	0	0	0	0	0
Indonesia	7	0	3	0	10	897	0	123.2	0	1020.2
Iran	0	0	0	0	0	0	0	0	0	0
Iraq	0	0	0	0	0	0	0	0	0	0
Jordan	0	0	2	2	4	0	0	1120	0	1120
Kazakhstan	0	1	0	0	1	0	0	0	0	0
Kyrgyz Republic	0	0	0	1	1	0	0	0	0	0
Lebanon	0	0	0	1	1	0	0	0	0	0
Malaysia	11	1	2	2	16	9422.2	16.4	705.8	0	10144.4
Maldives	0	0	0	0	0	0	0	0	0	0
Mali	0	0	0	0	0	0	0	0	0	0
Mauritania	0	0	0	0	0	0	0	0	0	0
Morocco	0	0	0	0	0	0	0	0	0	0
Mozambique	0	0	0	2	2	0	0	0	25.5	25.5
Niger	0	0	0	1	1	0	0	0	3.4	3.4
Nigeria	0	0	0	0	0	0	0	0	0	0
Pakistan	0	0	0	0	0	0	0	0	0	0
Palestine	0	0	0	2	2	0	0	0	0	0
Senegal	0	0	0	2	2	0	0	0	20	20
Sierra Leone	0	0	0	0	0	0	0	0	0	0
Somalia	0	0	0	0	0	0	0	0	0	0
Sudan	0	0	1	0	1	0	0	120.7	0	120.7
Suriname	0	0	0	0	0	0	0	0	0	0
Syria	0	0	0	0	0	0	0	0	0	0
Tajikistan	0	0	0	0	0	0	0	0	0	0
Togo	0	0	0	0	0	0	0	0	0	0
Tunisia	0	0	1	0	1	0	0	95	0	95
Turkey	0	0	1	1	2	0	0	942	0	942
Turkmenistan	0	0	0	0	0	0	0	0	0	0
Uganda	0	0	0	2	2	0	0	0	0	0
Uzbekistan	0	0	0	1	1	0	0	0	0	0
Yemen	0	0	0	0	0	0	0	0	0	0
OIC Countries	19	2	20	29	70	10,327.2	16.4	5,663.7	48.9	16,056.2
Non-OIC Countr.	276	27	298	91	692	28,933.7	9,663.7	9,147.4	1,362.7	49,107.6
Non-OIC ex. BRIC	183	17	253	38	491	21.8	5.4	3.4	25	55.7
World	478	46	571	158	1,253	39,282.7	9,685.6	14,814.6	1,436.6	65,219.5

Source: World Bank and PPIAF, PPI Project database



SESRIC

Kudüs Cad. No: 9, Diplomatik Site, 06450 ORAN, Ankara, Turkey

Tel: +90-312-468 6172 (4 Lines) Fax: +90-312-467 3458

E-mail: oicankara@sesric.org Web: www.sesric.org
