Infrastructure investments in the Middle East & North Africa

Diogo Ives
Matheus Machado Hoscheidt
Bruna Jaeger
Julia Simões Tocchetto

1. Historical background

1.1. Infrastructure development in colonial times

Scholars usually consider that colonial era started around 1885, when the Berlin Conference took place and the Europeans begun to formally incorporate African territories—which were actually being substantially influenced by them (Visentini, Ribeiro and Pereira 2007). It was between 1885 and 1914 that Africa was literally shredded with total disregard of local population interests (Uzoigwe 2010, 21). Boundaries were decided based upon inaccurate maps and entire tribes and communities were separated, while different groups and even enemies were put together in the same unity (Ribeiro 2007, 66-67). For its turn, the Middle East is strategically located in the interconnection of Europe, Asia and Africa. Modern infrastructure in the region was mainly built in accordance with economic and strategic priorities of the European great powers, interested in developing advantageous relations with Arab nations and concerned in establishing trade routes to East Asia since the Middle Ages.

Metropolitan control of the economy would only take place after the annexations. According to Rodney (2010, 378), “the railways that facilitated the conquest also served for the exploration of peanut, cotton and other products.” Therefore, infrastructure development was not per se the objective reached by the Europeans; it was, instead, an important mean to get what they generally wanted:

---

1 Relevant infrastructure was not developed before colonialism: “[t]he first positive effect of colonialism—the most obvious and deeper—was […] the establishment of a roads and railways infrastructure, the installation of the telegraph, phone and, sometimes, airports. None of that existed evidently in the pre-colonial African, where, as J. C. Caldwell said, ‘almost all land transports—until the colonial era—were made in men’s backs” (A. A. Boahen 2010, 928).

2 The 1885 Berlin Conference was held by European powers (Portugal, Great-Britain, France, King Leopold II from Belgium, and German entrepreneurs) in order to establish rules to the annexation of African territories. It is important to note that “[a]t the end of this conference, the African history and politics has begun to be defined by European diplomacy” (Ribeiro 2007, 58-61).
natural resources and markets for their manufactures. Bearing this in mind, Europeans developed infrastructure (roads, highroads and railroads) to connect extraction sites and big centers to the main harbors, “economically integrating previously dispersed populations. At intersections [of the infrastructure created], stations and harbors, new cities came up, benefiting the owners of those soils” (Ribeiro 2007, 75).

Although Europeans were relevant actors in the construction of infrastructure in the region, all of their projects were focused on providing benefits to the metropolis; then, some outcomes to local population (e.g. integration of dispersed regions) can be considered positive externalities, given the clear aims of colonizers.

Nowadays, the World Bank supports infrastructure projects that focus on local population development, on integration of the administrative unit or entire region, on fostering efficient production and distribution of wealth, as well as on the exportation and importation of products and natural resources. However, by the colonial era, Europeans just aimed to the latter, constantly trying to take profit out of its protectorates.

Prior to the European colonization, the Ottoman Empire (1299-1922), at its height in the sixteenth century, comprised the greater part of the Middle East, as well as North Africa and what is now the Balkan Peninsula. It became difficult over time for the Empire to establish efficient lines of communication among its growing and distant domains (Fromkin 2008). The sultanate gradually lost control de facto over its territories, reaching the effective disintegration of them after the World War I. European powers were then able to consolidate their influence in the region (Quataert 2000).

In the Middle East, although the colonial period would only last a few decades, it had a significant impact on politics, society, economy and regional infrastructure. “The Arab world was now fragmented and subject to foreign rule” (Halliday 2005, 83). Besides the creation of new countries, the period after 1918 represented the development of new patterns of international relations. Following the decline of the Ottoman Empire and with the inter-European rivalry over the region, the modern concept of Middle East was born, which reflects a new consciousness of Arab unity, covering not only the former Ottoman territory, but also broader areas, and forming a distinct region lying between Europe, India and the Far East (Halliday 2005).

Railway transport historically received great attention in the infrastructure development of the Middle East. Iran, Turkey and Iraq were the first countries to build domestic railways in the late nineteenth century. In the interregional level, the first and most important railway was the Hedjaz Railway, whose construction started in 1900—in what was then the Ottoman Empire—, linking Damascus, in Syria, to Medina, in Saudi Arabia, via Amman, in Jordan (UIC 2008). Throughout the first half of the twentieth century, investments in transport infrastructure
continued to be focused on railways, which were built for military purposes—primarily for the transport of soldiers, ammunition and supplies during conflicts—, as well as to create distribution routes of manufactures from Europe to the colonies and of raw material in the other way (UIC 2008). Also, it is important to highlight the establishment of the Conference of Middle East Railways (CMO) in 1956, as well as the creation of the Arab Union of Railways in 1979. Both initiatives aimed at improving the development of relations between neighboring railways, establishing an international cooperation between railway organizations in order to obtain greater participation in the volumes transported (UIC 2008).

Despite the similarities, there are relevant differences between the development of each country in North Africa that must be addressed. In the former French colonies, Morocco, Tunisia and Algeria, main economic activity was mineral extraction, which was exploited by foreign companies, mainly French ones, and exported to France or other West Europe countries (Kassab, Abdussalam and Abusedra 2010, 496). Railways were constructed in these territories to connect the main extractive sites to the coasts, where an infrastructure network of ports was built to enable transactions with Europe. For its turn, the territory that currently corresponds to Libya (formerly dominated by the Ottomans (1835-1911) and followed by Italians), had little infrastructure development and economic activity was basically agriculture, trade, and little handicraft during Ottoman administration (Kassab, Abdussalam and Abusedra 2010, 509). In 1907, Banco di Roma, a financial entity based in Libya, invested in agriculture, industry, and transports. The Turkish tried to forbid such activities, what resulted in an Italian invasion in Libya by 1911. Some development in infrastructure was made possible, as well as investments in agriculture and local industry (Kassab, Abdussalam and Abusedra 2010, 512-513). Italian government “constructed roads, railways, harbors, an advanced communication system, hydraulic facilities, and public buildings” (Kassab, Abdussalam and Abusedra 2010, 515).

In Egypt, there were relevant developing advances before its formal annexation by the British in 1882. When Muhammad ‘Ali was in power and Egypt was part of the Ottoman Empire, public administration focused on agriculture, industry and infrastructure improvement, with irrigation development and sanitary infrastructures enhancement. In the 1840’s, after a Muhammad ‘Ali military defeat to Europeans, the economy became totally dependent on cotton exports (Kassab, Abdussalam and Abusedra 2010, 516 and 549), which flourished with the

---

3 Tunisia, formerly part of the Turkish-Ottoman Empire, became a French protectorate in 1882; Algeria had been under French control since 1830, prior to its domination by Turkish-Ottoman Empire; Morocco became a French protectorate in 1912, although some coastal areas were granted to the Spanish, established there since 1860 (Chérif 2010, 17; Visentini 2012, 19, 43 and 64).

4 The conflict was eventually sealed with the “Treaty of London, agreed between the European powers and Turkey in July of 1840 […] [it] was the end of the monopoly created by Muhammad ‘Ali, the opening of Egypt to the ingress of foreign capital, the start of the Isthmus of Suez excavation, which resulted directly in the military occupation of 1882” (Abdel-Malek 2010, 391).
increasing demands of the English industrial revolution\textsuperscript{5}. Between 1840 and 1920, there was great infrastructure development in Egypt, despite being constructed mainly to ease cotton exports; other sectors, not related to this activity, were neglected. British administration (1822-1922) indeed brought infrastructure advances to Egyptian economy, but halted any industrial advances that could have emerged. Public debt of the Egyptian administration, since 1858, was accumulated mainly due to infrastructure projects, besides monarchs’ extravagances (Kassab, Abdussalam and Abusedra 2010, 521). Kassab, Abdussalam and Abusedra cast some light on further investments:

“[t]he first railway line was inaugurated in 1853 and in 1877 this number was 1,519 km of railways of standard track gauge. This network has more than doubled during the British occupation, reaching, in 1909, 3,200 km, and 1600 km of narrow track gauge. Alexandria port facilities were modernized and enlarged several times. New ports were built in Suez and Port Said, in the Suez Canal, which was opened to navigation in 1869. All these improvements have greatly facilitated the transformation of the agricultural sector: from subsistence agriculture to a large scale export crop, aimed to international markets\textsuperscript{5}” (Kassab, Abdussalam and Abusedra 2010, 517).

The construction of the Suez Canal, an important international navigation channel connecting the Mediterranean Sea at Port Said and the Red Sea at Suez, was negotiated during the reign of Sa‘īd (1854-1863), who provided its concession to France (Abdel-Malek 2010, 402-403). In 1958, the Universal Company of the Maritime Suez Canal was created and authorized to dig a channel and operate it for 99 years. The company’s stocks were essentially owned by France and Egypt. Considered the first artificial channel to be used for travel and trade and the shortest link between the East and the West, it was opened to international navigation in November of 1869. In 1875, British government purchased Egypt’s shares due to its external debts (Suez Canal Authority 2013). The Canal was one of the reasons\textsuperscript{6} for British annexation of Egypt in 1882.

By the time Sudan was under Anglo-Egyptian domination, it experienced relevant improvements in terms of infrastructure, once there was a real attempt to develop the region. The British built railroads (initially, to assure its military interests), harbors, dams, pumping stations and irrigation channels. Thereby, they connected northern region to the Mediterranean through Egypt, Port Sudan to important central cities (Atbarah and Sennar) and Djazira (the most fertile valley of Sudan) to the Red Sea. The British hoped to complement Egyptian cotton with Sudanese production. Despite bringing relevant progress, all investments clearly served essentially to Great-Britain interests in Sudan. No road was constructed and

\textsuperscript{5} It is useful to stress that the increased demand to Egypt cotton was in part conditioned by the US civil war, which halted the south states exports of cotton for a while. The British, therefore, extremely encouraged Egyptians’ cotton crops.

\textsuperscript{6} British interests range from the channel’s strategic position (near to Middle East and India) to the relevance of the Nile River and its interests in East Africa.
no industry fostered. One of the major harms to the country was the neglect of Southern Sudan. The absence of investments—or even attention—in this area undoubtedly condemned its development perspectives (Kassab, Abdussalam and Abusedra 2010, 126-128). In this sense, the recent separation of Southern Sudan from the North region has, clearly, historical constraints, which range from the differential colonial treatment to the possession of oil reserves\(^7\) and the existence of religious issues.

Since the beginning of the Great Game\(^8\) until the early twentieth century, the major concern of Great Britain was to maintain free passage on the path to the East (Fromkin 2008). At first, Constantinople (now Istanbul) controlled both the east-west passage between Europe and Asia, as the north-south passage between the Mediterranean Sea and the Black Sea. Great Britain’s priority was to ensure its navigation through the strait of Dardanelles and thus avoid that the region fell under Russian domination. Throughout the nineteenth century, Britain’s foreign investment in the region was in compliance with the Russian-British rivalry, opposing the will of exclusive domination of the first to the free trade interests of the latter (Fromkin 2008). By the end of that century, Germany replaced Russia as the main threat for the British interests, since the German unification (1871) led the nation to become one of the great powers of the period.

The Baghdad Railway, built between 1903 and 1940, was planned to connect Berlin and the city of Baghdad, passing through Turkey, Syria and Iraq, being its funding and engineering mainly provided by banks and companies of the German Empire (Quataert 2000). In the 1890s they had already built the Anatolian Railway, linking the cities of Istanbul, Ankara and Konya (Quataert 2000). The Baghdad Railway reflected German interest to establish a port in the Persian Gulf, allowing later access and ownership of oil fields in Iraq, and also to form an alternative line to the Suez Canal. In its turn, the Ottoman Empire desired to maintain control of the Arabian Peninsula and to expand its influence across the Red Sea in Egypt, which was controlled by Great Britain. The railway was a major source of international tension during the years that immediately preceded World War I (Lewis 1995).

Generally, the Middle East, given its strategic position, figured as a decisive area for both powers’ interests. For Britain, which intended to maintain its predominance in the Middle East, the threat was manly configured by German infrastructure investments in the region, primarily in railways, aiming at building efficient routes for Germany’s armaments, army and supplies. Since then, this new

---

\(^7\) “The unified Sudan has been producing oil since the 1990s. Most of the producing assets are near or extend across the de facto border between Sudan and South Sudan. When South Sudan became independent in July 2011, it gained control over most of the oil production. But South Sudan is landlocked and remains dependent on Sudan because it must use Sudan’s export pipelines and processing facilities”. (U.S Energy Information Administration 2013)

\(^8\) From the late eighteenth century until the entire nineteenth century, the Great Game was a dispute of whether the supremacy of the world would be wielded by Russia or Great Britain. The rivalry between those countries was expressed in the control of territories, routes and production sites in East-Asia and the Middle East (Clayton 1974)
pattern of rivalry determined the outbreak of the World War I, which opposed rival interests of these two competitors. The victory of the Allies in the War meant the impairment of Germany, the maintenance of Great Britain’s advantage in the Middle East, but also the rising influence of the United States in the region.

1.2. Implications of the two Great Wars for the region

During the First Great War, major movements in Africa consisted of invasions of the Allies in German colonies, currently ranging the territories of Cameroon, Togo, Tanzania and Namibia. Even so, there was some activity in the North African region. When the Ottoman Empire entered the War supporting Germany, Great-Britain reinforced its defenses in the Suez Canal. Egypt turned up to be the main British base in the Middle East and North Africa region in this war and in subsequent decades. It is worth stressing that, during the war, public works and developing plans were suspended, unless they were connected somehow with military operations (Crowder 2010, 324, 237-330 and 343).

In 1916, the governments of France and the United Kingdom signed the Sykes-Picot Agreement, a secret arrangement through which both states defined their respective spheres of influence in the Middle East after the conflict. The agreement represented a turning point in the relations between Arabs and the West, since it contradicted the promises made to the firsts—through T. E. Lawrence—that an independent nation would be created in Syrian territory in exchange for supporting British war efforts against the Ottoman Empire (Magnoli 2008). After the victory of the Allies in the war, it occurred the dismemberment of the Ottoman Empire, the disruption of the Arab provinces in northern Iraq, the creation of dependent monarchies with new army and new administrative machinery, and the dissemination of European culture elements. Investments in the Middle East were thus strongly marked by: the onset of transports moved by steam propulsion, incipient imitation of European modern techniques, and the beginning of a systematic exploration of oil (Halliday 2005).

In the Second Great War, North Africa and the Middle West were, particularly, in strategic positions: the region was ambitioned owing to the advantages of installing military bases in the region. In 1941, the Anglo-Soviet invasion of Iran aimed at securing Iranian oil fields and ensuring supply oil lines of the Allies to the Soviet Union through the so-called Persian Corridor. At the end of World War II, contrary to World War I, the map of the Middle East remained largely as it was before. This was, mainly, due to the fact that the core areas of the region were not directly involved in the conflict (Halliday 2005). However, World War II had a huge transformative role, as it accelerated independence movements in the main Arab states, due to the rise of nationalism in the region, as well as due to the first signs of an anticolonial atmosphere, for which the USSR had an essential role. This

---

9 With the exception of the partition of Palestine between Jews and Arabs in the immediate aftermath of World War II and the consequent creation of the Israeli state in 1948.
war definitely created an anti-colonial feeling without precedents, undermining the white race superiority myth (Coquery-Vidrovitch 2010, 342-346).

These factors, coupled with growing U.S. influence in the Persian Gulf and with the creation of the Arab League in 1945, were crucial to change infrastructure investments in the region. A greater degree of modernization in the Middle East and North Africa, represented especially by the improvement of the infrastructural base (e.g. oil companies and pipelines), met the Western interests over oil, determining the pattern of investments in the region during the Cold War period (Morton 2011).

1.3. The second half of the 20th century

Independence movements and the Cold War were a turning point of the second half of the 20th century. Political independence, however, has not granted economical decolonization, since Europeans have continued to exercise its power in the continent (Chinweizu 2010, 1928).

The main infrastructure nets in Africa were concluded by the 1930’s and, “after that, few miles of railways were added” (A. A. Boahen 2010, 928). This relative stagnation is still a matter of great concern. Despite African agricultural production increased in the 1950 and 1960 decades (Owusu 2010, 417), agricultural infrastructure and investments in the rural zones were really scarce. Up until now, it damages the countries’ development, which demands crops diversification\textsuperscript{10}, integration of its sectors, and more social equality (Owusu 2010, 377-378).

In the second half of the 20th century, African countries, as many less developed ones, went through a process of accelerated urbanization, also called rural exodus, which started in 1935, stimulated by a crisis in the rural areas. Thereby, misery, unemployment, and informal sector predominance took place in urban areas, where an adequate industrialization process has not taken place. Only in 1970 urban infrastructure organisms, i.e organisms that elaborate cities’ master plans, were created in most countries of the continent (Kipré 2010, 375-376, 461 and 466).

After independencies, many governments considered a centrally planned economy as the best option to assure development. However, most of these plans lacked real plausibility and capability to be conducted. They focused on parameters of the neoclassical approach\textsuperscript{11}, like infrastructure establishment, foreign aid and foreign private investments, as well as strategies to attract them (Adedeji 2010, 471-473).

According to Simuyemba (2002), infrastructure in Africa was really scarce by

\textsuperscript{10} Crop production was highly concentrated in exportation products like sugar, coffee and cocoa, lacking first needs food cultures, like meat and cereals (Owusu 2010, 377-378).

\textsuperscript{11} The Neoclassical approach is well-known as a liberal view of the world, supported by accurate economical models and strict conditions that, most times, do not cover the “real” world. It is also known as the theories intended to maintain the international system status quo, that is, hindering low and medium income countries to develop (or industrialize), and making developed countries remain in its positions.
the 1960’s, but it thrived in the two subsequent decades, mainly due to recently
independent governments willing to show “the fruits of independence”. There were
significant advances, such as new roads, railways, telephone nets, power plants
and pipelines. Both rural and urban areas received investments in infrastructure
systems. In the late 80s, however, “the combination of state monopolies, poor
policies, poor management, lack of re-investment and absence of effective
maintenance had led to deterioration of infrastructure”. Besides, infrastructure
was built disregarding integration, regional coordination and projects of long-
term sustainability, but only focusing on countries’ immediate needs (Simuyemba
2002, 10-11).

Regional integration and cooperation were well-known conditions to effective
economic decolonization. Since late 1950’s and 1960’s, some groups and regional
arrangements have been created to foster these objectives. These aims, however,
would have to face tricky obstacles, as the lack of substantial infrastructure
connecting regions (Adedeji 2010, 489-490). It is recognized that any integration
project requires the development of infrastructures to enable transports,
telecommunication and trade, also including oil and gas exchange, for which nets
of pipelines are required.

Oil came to play a major role in the politics of the Middle East only in the early
twentieth century, because previously it was not known that it existed in great
quantity in the region. It was first discovered in 1908 in Persia and thereafter, only
in 1938, in Saudi Arabia and other Persian Gulf countries (Ayoub 1994). With
the substitution of coal for oil as the main international energy resource and with
the growing global interest in the oil market, the exploration, exploitation and
transportation of this fuel were a turning point in the history of the infrastructure
investments in the Middle East. Initially, Western oil companies established
control over oil production and extraction. However, after independence processes
took place in the mid-20th century, internal pressure led to the nationalization
of oil assets by many countries. Combined with the creation of the Organization
of Petroleum Exporting Countries (OPEC) in 1960, this scenario improved the
bargaining conditions of the producing nations against the West (Ayoub 1994).
Notwithstanding, the discovery of massive oil reserves in the Middle East led
to an irreversible military, political and economic interest of the United States
of America in the region, eventually replacing the declining British and French
influences over the area (Morton 2011).

The Cold War in the Middle East—and the consequent infrastructure
investments in the region—was characterized by competing strategic interests
between the two great powers of the period: the United States and the Soviet
Union. Cold War, as well as World War II, did not witness an alteration in the
Middle East’s map, with the exception of the Israeli expansion in 1967. The main
interest of the U.S. in the region was the oil of the Arabian Peninsula12, while the

12 According to Halliday (2005), this interest was not so much a relationship of dependence of the U.S. companies
USSR had as objective an establishment of strategic alliances with Arab nationalist regimes, such as Iraq and Egypt. The USSR, the largest oil producer in the world in 1970, had no direct interest in this resource of the Middle East. In their turn “the U.S. and the Western countries came increasingly to rely on it [the Middle East] for oil supplies, trade and investment funds, a re-appropriation of oil rent masked as recycling” (Halliday 2005, 98). Both sides gave a large sum of armament and economic assistance to its allies in the region over the period. However,

“what was decisive for most people in the region, the pursuit of a livelihood and a measure of economic security, had almost nothing to do with the Cold War: the USSR never offered significant amounts of investment or aid, let alone a viable economic model, whilst the monies coming from the west were largely channeled to elites through the provision of oil revenues from consumers and then recycled back to London and New York” (Halliday 2005, 129).

The oil crises in the 70s evidenced the power of hydrocarbon-rich states. All countries in North Africa own oil reserves, notably Algeria, where oil researches only started in the 1950’s, and Egypt. Oil production in North Africa grew substantially since the 1940’s, when the main producer of the region was Egypt (Kipré 2010, 445-446). Today the fact that Libya, Algeria, Egypt and Sudan (recently, South Sudan as well) are all important oil producers and exporters implies the necessary construction of effective infrastructure, e.g. pipelines for distribution and trade\textsuperscript{13}. Over the past three decades, there has been recurring oil booms, which allowed the elaboration of welfare programs and subsidies in the Middle East, ensuring the possibility of public investment in basic infrastructure (Jordan 2009). However, these booms have not led to internal sustainable economic growth and equitable prosperity, mainly because of the mismanagement of oil revenues and also due to the underdevelopment that characterized the region. Most of the oil wealth was absorbed by a small elite that reinvested it in the West (Davis 2008). Therefore, the region has managed relatively poorly the great benefits of the oil wealth generated in the 1970s and 1980s, losing opportunities to make long-term infrastructure investments, remaining highly dependent on funding from external powers.

2. Statement of the issue
2.1 Transport infrastructure
2.1.1 Economic, social and environmental impacts

The welfare of any society is greatly affected by the mobility system that people

\textsuperscript{13} The biggest oil producer in North Africa is Algeria (1,875 million barrels per day). Behind Algeria, there is Libya (1,483 bbl/d averaged in 2012), Egypt (720.020 bbl/d averaged in 2012) and Soudan and South Sudan (combined, its production peaked 486,000 bb/d in 2010, but plummeted to around 115,000 bb/d in 2012). To comparison, Saudi Arabia, the world’s biggest producer, produced 11,725 million bbl/d in 2012 (U.S Energy Information Administration 2013).
have at their disposal. Transport and economic development support each order, as transport infrastructure makes both national and international markets closer for business environment, which facilitates trade and encourages investment. On the other way, underdeveloped transport systems restrain economic activities and contribute to poverty (COMCEC 2011). Roads, railways, airports and seaports are the essential means for moving goods and services across territories. The participation of a state in the global trade is directly determined by the quality of its logistics infrastructure, since it affects the costs of a product (COMCEC 2013). A World Bank study (2001) showed, for instance, that transport costs represent more significant trade barriers than tariffs for most nations (WTO 2004).

<table>
<thead>
<tr>
<th>Position in world infrastructure rank</th>
<th>Infrastructure score (from 1 to 5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uea</td>
<td>17</td>
</tr>
<tr>
<td>Qatar</td>
<td>34</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>35</td>
</tr>
<tr>
<td>Morocco</td>
<td>39</td>
</tr>
<tr>
<td>Bahrain</td>
<td>43</td>
</tr>
<tr>
<td>Egypt</td>
<td>45</td>
</tr>
<tr>
<td>Tunisia</td>
<td>54</td>
</tr>
<tr>
<td>Kwait</td>
<td>61</td>
</tr>
<tr>
<td>Yemen</td>
<td>74</td>
</tr>
<tr>
<td>Syria</td>
<td>84</td>
</tr>
<tr>
<td>Jordan</td>
<td>91</td>
</tr>
<tr>
<td>Iran</td>
<td>100</td>
</tr>
<tr>
<td>Lebanon</td>
<td>102</td>
</tr>
<tr>
<td>Algeria</td>
<td>139</td>
</tr>
<tr>
<td>Iraq</td>
<td>146</td>
</tr>
<tr>
<td>Libya</td>
<td>152</td>
</tr>
<tr>
<td>Djibouti</td>
<td>154</td>
</tr>
<tr>
<td>Israel</td>
<td>Unavailable</td>
</tr>
</tbody>
</table>

Table 1: Logistics Performance Index 2012 (World Bank 2012)

In the Middle East and North Africa (MENA) region, low performing transport infrastructure is a common feature. It has adversely affected trade flows, since it causes higher costs, delays, and uncertainty. Over the past years, the region has lost global market share in many export sectors (World Bank 2010). Nevertheless, it is important to bear in mind that infrastructure competitiveness is significantly different among MENA countries, as measured by the Logistics Performance Index of the World Bank (see Table 1) (World Bank 2012). Measures that may increase
efficiency and reduce transport costs in the region include better regulation, creation of regional linkages, integration of time schedule, modernization of information technology, and international liberalization of the transportation sector (WTO 2004).

Besides economic issues, transport infrastructure is also fundamental to social development. A better mobility system enhances the ability for people to access services like education, health, public offices, employment, and consumption (COMCEC 2011). Accessibility conditions are usually worse in rural areas, where people are poorer and more dependent on public transport. For most MENA countries, especially those with a large rural population such as Morocco, Egypt, and Yemen, rural areas have bad road networks and inadequate transport services. Besides rural population, people with reduced mobility (PMR) deserve special attention, since transport modes have a central importance in their lives. Several countries in the MENA region are signatories of the Convention on the Rights of Persons with Disabilities, but none seems to have started to implement the Convention in the transport sector (World Bank 2010).

Transport infrastructure also has a special impact on women empowerment, a delicate issue in the MENA region. In addition to cultural factors that constrain women's participation in society, transport options for them exacerbate the problem. In most societies, women do not own private transport means and, thus, use public transport, which is limited in terms of routes and time. On top of that, women cannot pay for it as they want, since men usually control household income. On buses and trains, women also face problems relating to sexual harassment and gender-based violence. Women from poor families that live on the outskirts of towns, far from public transport routes, are forced to look for jobs in a restricted geographical area around their homes, which gives them a lower chance to access better living conditions. In more extreme cases, as in Yemen and in the West Bank, women can travel alone by foot in villages, but they can only travel in cars with a male family member. In order to improve mobility for women, it is necessary to increase availability, affordability, security and quality of public transport (World Bank 2011).

Finally, transportation plays a central role in environmental conditions. Greenhouse gases (GHG) emissions related to transports have been rising over time all around the world, due to the increase in transport demand. Transportation accounted for 22% of global CO2 emissions in 2010, making it the second largest source of CO2 emitter, only after electricity and heat generation (41%). Among all transportation modes, road transportation is the main responsible for GHG emissions, accounting for 10.7% of the total, followed by air transport (1.7%) and maritime transport (1.2%) (COMCEC 2013). Although MENA GHG emissions are less than 6% of the world total for the transport sector, MENA has the highest GHG transport emissions per unit of Gross domestic product (GDP) of all the regions of the world (about 150 Tons CO2 per US$ million of GDP, roughly the
same as North America) (World Bank 2010). Measures aiming at reducing the transportation-related GHG emissions involve enhancing fuel efficiency (buying smaller vehicles, increasing engine efficiency, or employing lighter materials), using alternative fuels (as biofuels, natural gas, and electricity), or shifting from personal car to public transport or non-motorized vehicles (COMCEC 2013).

2.1.2 Overview of national transport systems

In national perspective, roads are the primary transport mode in MENA countries. Private vehicle ownership is generally quite high. Bus and taxi services are the most used alternatives, while metro systems only exist in Dubai, Cairo, Tehran and Algiers, due to demographic and cost reasons (Bloominvest Bank 2011). 60% of the MENA’s population lives in cities, where congestion is a growing problem (World Bank 2010). One alternative largely unexploited to increase efficiency in public transportation is the implementation of a Bus Rapid Transit (BRT) program, through which buses use bus - only lanes, making them faster than traditional bus systems. Meanwhile, cities with larger budgets are opting for light rail systems, which do not require as much dedicated space on the roads as BRT and have higher speed, lower pollution and feasibility in both urban and suburban areas (Bloominvest Bank 2011).

Railways are underdeveloped as an option of national transport mode. Compared to other regions, MENA’s rail track density is very low. Networks have historically suffered from underinvestment in building, renewal and maintenance, and assets have been damaged or destroyed by conflicts in some countries. For many governments, the required investments are far beyond their financial capabilities, and the business climate is not satisfactory for attracting private capital. For decades, countries focused on building up road and air transport, particularly aiming at expanding links with Europe. Maghreb states are currently investing heavily in rail infrastructure. From trams to high-speed trains, investments are being made on a scale unparalleled since the original networks were built by colonial powers (France, Spain, and Italy) (IDB 2011).

Regarding maritime infrastructure, investments in ports have accompanied the growth of MENA’s international trade. MENA’s imports and exports more than tripled between 2000 and 2010. Between 2002 and 2008, the total volume of containerized shipments handled by MENA ports grew by two thirds, while the volume of cargo passing through the Suez Canal doubled, reflecting the fast growth of both Asian trade and that of the Arabian Gulf countries. In 2009, due to the global economic crisis, traffic fell sharply, but it recovered in 2010-2011. In the Gulf Cooperation Countries (GCC) region, many ports are currently undergoing expansion, and several new ones are being built or planned. There is a total investment of US$50 billion committed for these projects in this decade (Gal 2011). Most Mashreq ports have improved their performance over the last five years. The six medium-sized Mashreq ports (Lattakia, Tartous, Tripoli, Beirut,
Aqaba, and Um Qasr) have seen strong growth in container traffic and improved productivity. In the Maghreb region, there are fewer investments being made when compared to the above mentioned. Maritime companies complain that state regulations have driven up shipping costs (IDB 2011).

2.1.3 Transport connections among MENA countries

Trade within the MENA region is much lower compared either to Europe or Asia. Regional trade accounts for 10% of the total trade for most of the MENA countries. Many proposals to revert such scenario have been made. One of the most important is the project to create the Greater Arab Free Trade Area (GAFTA), already signed by all MENA economies and set up to achieve a free trade zone. Smaller free trade initiatives are the Arab Maghreb Union (among Morocco, Tunisia, Algeria, Libya, and Mauritania) and the Agadir Agreement (among Morocco, Tunisia, Jordan, and Egypt). Nevertheless, the MENA region is known to be one of the least physically integrated regions in the world, a condition that limits effective integration. One of the main causes for such condition is the fact that no country is landlocked in MENA, and every nation has its own ports, which makes cross-border links not to be a priority for governments (IDB 2011).

Improving ground transport connections among MENA countries is essential to support integration initiatives. Moreover, there has been an increase in business travel inside the region given the process of diversifying national economies away from the oil sector, which increased importance of other activities and has led more people to travel for professional purposes. Air transportation, still expensive for most people, is mainly used for such trips (Bloominvest Bank 2011).

Despite these growing demands, intra-regional routes are underdeveloped among MENA counties (Bloominvest Bank 2011). Roads are the primary connection mode, but they are overused and 30 to 40 percent of the total network is not paved (World Bank 2009). Railways account for only a few international connections between major cities (between Damascus and Amman or Tehran). Air transport presents the best situation, as every country in the region has at least one international airport with good connectivity to regional destinations. The UAE has turned into the main hub for air traffic in the region. Sea transport, by its turn, is not a viable option in most cases (Bloominvest Bank 2011).

There are two ambitious railway projects for the MENA region. The first one to be designed multilaterally was the trans-Arab railway, in 1979, but it has seen little advancement (Bloominvest Bank 2011). The second project is the rail network connecting the Gulf Cooperation Council countries, launched in 2003, which is in more advanced stages. They are both further discussed in the “Previous International Action” section (IDB 2011).

The development of transport corridors has been a high priority for Mashreq and Maghreb (North African) countries. A transport corridor is a combination of routes that connect centers of economic activity across one or more adjoining
Figure 1: Mashreq trade corridors (IDB 2011).

Figure 2: Cairo-Dakar Highway (source: ADB 2003).
countries. The end points are gateways that connect the economic centers to the hinterland or to the global trade routes. The countries that participate in a transport corridor should not be fewer than three or more than six for reasons of efficiency and effectiveness. Transport corridors are of significant developmental relevance, because they promote trade among cities and countries along it, support regional economic growth and enhance regional integration (IDB 2011).

In the Mashreq region, there are three trade corridors connecting countries and providing links to the rest of the world (see Figure 1). The region is well connected through roads and air transport (IDB 2011). New investments in roads and railways are made in accordance with a plan named “Integrated Transport System in the Arab Mashreq”, launched in 1999 by the United Nations. It is further discussed in the “Previous International Action” section (UN-ESCWA 2011).

In the Maghreb region, governments have invested in the creation of the Cairo-Dakar Highway for decades. It was planned by the United Nations and African organizations, as further detailed. The road goes across the north and west African coasts (see figure 2). It has a total length of 8,636 kilometers and runs throughout Egypt, Libya, Tunisia, Algeria, Morocco, Mauritania, and Senegal. It is linked to several other Trans-African Highways. Most of the road is already paved, though maintenance is poor, due to high costs. It cannot be completely used due to the closed border between Morocco and Algeria since 1994 (ADB 2003).

2.1.4. Transport connections among MENA, Europe and Asia

The MENA region is fast emerging as a global transit hub, since the movement of people and goods has increased between East and West. With the rise in prominence of Asian economies, today’s picture is surprisingly similar to the situation of the first century AD, when the Middle East was a central point on the Silk Route, the major trade route between Europe and silk-producing countries like India and China. The MENA region is equally accessible by sea and air, which makes it appropriate for multiple modes of transport that connect Europe and Asia. Airports of the region are important for air carriers that need to make stopovers for refueling and reloading. Investments in airports grew over the last years, since cities like Dubai, Abu Dhabi, Jeddah, Doha and Kuwait have gained prominence on the global aviation map for business and leisure reasons (Bloominvest Bank 2011).

Maritime transport benefits to a lesser extent from the central location of the MENA region, as sea vessels do not require as many stopovers as aircrafts. However, the Jeddah port in Saudi Arabia, Salalah in Oman, and Port Said in Egypt have been positioning themselves as major trans-shipment hubs. Major port projects in the MENA region are under construction in Bahrain, Kuwait, Oman, Saudi Arabia, and UAE. Governments in the region play an active role in the development of ports and the shipping industry to ensure stable transportation for their hydrocarbon exports. The use of intermodal transport, combining air and
Figures 3 and 4: Euro-Asian Transport Links—planned roads and railways (source: UN-ESCWA 2011)
sea, is on the rise. It represents an opportunity for the region to capitalize upon, as done by Dubai, which emerged as a global hub given its capabilities to integrate sea and air transportation (Bloominvest Bank 2011).

There exist initiatives to connect Europe and Asia through the Middle East by ground infrastructure. The United Nations Economic Commission for Europe (ECE) and the Economic and Social Commission for Asia and the Pacific (ESCAP) work on studies to build Euro-Asian Transport Links (EATL) since 2003. Roads and railways that would have greater international importance have been mapped (see figures 3 and 4). Iran is the only country in the MENA region to be considered in the EATL project. Thirty-two roads and ten railways were planned to be built inside Iranian territory. The majority of them is already finished. Financing of the EATL program has come from governments, development banks (World Bank, IDB, ADB, EBRD) and private partners (UNECE 2012).

2.2. Energy infrastructure

The Middle East and North Africa (MENA) have massive potential for energy generation, accounting for “57% of the world’s proven oil reserves and 41% of proven natural gas resources” (World Bank 2010). National income is one of the main determinants of energy consumption, and MENA countries have presented high levels of GDP growth during the last decades. However, countries in the region are sharply different both in terms of potential and of effective installed infrastructure. Many oil-exporting states are large foreign direct investment recipients and have an important share of private capital invested in their infrastructure systems, whereas other countries still rely on farm products and are net importers of gas and oil. Therefore, there are high levels of income inequality among states.

According to the World Bank (2010, 1), “many countries have close to 100% access to electricity, but an estimated 28 million people still lack access to electricity, especially in rural areas” (World Bank 2010, 1). Nevertheless, overall statistics may disguise huge differences among MENA states. For example, the electrification rate (percentage of population with access) reaches 90.2 percent in the region, mainly due to Gulf countries where rich sources of energy have reduced energy costs far lower than world average. In countries like Djibouti and Yemen, however, a large amount of population still lives without access to electricity. Even so, average delay in obtaining electrical connection lasts 60.9 days, a substantial index of inefficiency in infrastructure services provision (World Bank 2012).

As a region composed by developing and underdeveloped states, population growth and rapid urbanization demand high levels of investment in infrastructure14. For example, although MENA countries have achieved universal access to many

---

14 In the MENA region, GDP growth in the last decade reached 60 percent, comparing well with Latin America and Sub-Saharan Africa, for instance. MENA population, though, has grown by 20 percent, faster than in all regions except for Sub-Saharan Africa (Hashemite Kingdom of Jordan 2009, 19).
infrastructure services, installed generation capacity of electricity falls short of regional needs by as much as 20 percent (Hashemite Kingdom of Jordan 2009, 20). Regarding the fact that the entire region’s projected GDP over the next years is three times higher than world average, World Bank projections estimate that a total investment of 3% of the its GDP will be required to meet universal access to electricity, amounting for nearly US$ 30 billion per year.

MENA countries clearly do not diverge only in terms of energy resources availability. Gulf countries tend to have greater levels of currency convertibility, and the share of foreign direct investments in their national income is higher than in other neighboring states. This leads to closer relations to international capital representatives and institutions, as well as with major players in the international monetary system. Saudi Arabia and the United Arab Emirates exemplify how energy endowments and energy policies impact foreign policy patterns and alliances, despite religious or cultural conditions.

On the one hand, balance of payments in countries which are very dependent upon oil exports as a source of foreign-exchange reserves is highly volatile, varying according to international fuel prices. When it comes to analyzing net oil importers, on the other hand, high and volatile prices strain these countries’ finances and raise public debt (World Bank 2010, 1). Increasing prices of oil and gas, in the long run, may damage even net exporters, since countries shall start diversifying their energy mix, reducing the share of fossil-based fuels of their energy supply.

Many resources-rich countries developed inefficient energy supply mechanisms, with high levels of transportation losses and environment damaging processes. In relative terms, North Africa has the largest electricity-generating capacity of its continent, with 0.8 megawatts per 1,000 workers in 2001-5, according to Calderón (2009, p. 8)15. Along with Southern Africa, North Africa registers the best performance in energy generation of the continent, with technical losses ranging from 9 to 13 percent in 2001-5 (Hashemite Kingdom of Jordan 2009). When comparing to the Middle East power capabilities, though, North Africa energy potential is low. The question of efficient transportation and overall logistics is also connected with the use of renewable sources, once this kind of energy will come mainly from much less populated areas, and many industry experts wonder about the effects of dust and intense heat on solar power facilities (The Economist 2011, 13).

In the MENA region, power demand is expected to keep growing by 7% annually in the coming decade. Given the rising energy consumption, countries are trying to address this matter both by increasing capacity of traditional energy sources and by diversifying their fuel consumption. Nowadays, the average share of power coming from renewable sources in the region is of 3 percent, but the International

15 As stated by this World Bank report, “North Africa is the only subregion that outperforms South Asia in terms of electricity-generating capacity” (Calderón 2009, 8).
Energy Agency (IEA) expects it will increase to 7 percent by 2030. Oil-producing nations have tried to foster their highly dependent on hydrocarbons economies by promoting energy-intensive industries that could benefit from low prices of hydrocarbons (The Economist 2011). According to IEA data from 2009,

“[t]he Middle East economies have a carbon intensity of 1.93 kg of CO2 emissions per US dollar of GDP, compared with a world average of 0.73 kg, and 0.41 kg among member states of the Organisation for Economic Co-operation and Development (OECD). Widespread availability of hydrocarbons among the oil-producing countries in the MENA region, once a competitive advantage, may become a competitive disadvantage as global carbon pricing schemes take shape” (The Economist 2011, 10).

Trying to cope with the intensity of carbon emissions, the United Arab Emirates (UAE) launched a nuclear power plant that will first operate in 2017 and is expected to strongly affect power supply in the MENA region. As well as the UAE, Jordan and Bahrain are openly seeking to build nuclear energy plants. Nuclear power alternatives are seen as very promising for countries trying to reduce CO2 emissions and to diversify energy basis because of oil and gas prices volatility.

The International Energy Agency (IEA) has already stressed the potential for developing renewable sources in the region. According to its estimates, if fully implemented, the technical capabilities of Concentrated Solar Power (CSP) plants in the MENA region would cover about 100 times the energy consumption of the Middle East, North Africa and the European Union combined. Only a few areas in the United States compare to MENA region in terms of solar power potential (IEA 2011, 46). Mixing energy sources with CSP plants, nevertheless, would require considerable financial mechanisms, due to high rates of dollar unit per megawatt generated. Financing for such programs would hardly come from rich Middle East countries, owing to the fact that reducing dependence on fossil-based fuels would shorten many flows of oil exports from GCC countries.

Potential for developing hydropower is a condition shared by Egypt on the Nile River, Iran on its north-western plains and Iraq and Syria in the Tigris-Euphrates basin16 (O’Sullivan, Rey and Mendez 2012, 18). Except for those countries, according to World Bank Group assessments, the MENA region accounts for a short economically feasible hydropower potential17. Nonetheless, it still ranks as the third least exploited region in terms of hydropower projects. Unexploited potential as a percent of total potential amounts for 79 percent in the Middle East and North Africa, only after East Asia and the Pacific (82%) and the rest of Africa (93%) (The World Bank Group 2009).

Increasing energy production from renewable sources seems to be a good opportunity for investment and development in the years to come. Algeria, for

---

16 The authors also emphasize the potential for wind energy resources along the Red Sea and on Morocco’s Atlantic coast.

17 Its economically feasible potential does not exceed 2x10^5 GWh/year. China’s and OECD countries’ potential, for example, exceed 16x10^5 GWh/year. Africa’s potential is about 10x10^5 GWh/year.
example, announced plans for “22,000 mw of renewable energy capacity by 2030, and Morocco is targeting 2,000 mw of new solar generation capacity by 2020, as well as hosting the first reference project of the Desertec concept” (The Economist 2011, 12). The IEA forecasts that “the use of renewables for electricity generation could grow up to 33 percent by 2035, with investments possibly reaching over US$400 billion by that year” (O’Sullivan, Rey and Mendez 2012, 18).

Especially through traditional energy sources, MENA countries are trying to compensate an expected future growth in energy demand. Darbouche (2012) shows how domestic absorption of energy is increasing in some countries, since energy export trends in Algeria and in Egypt are stagnated and/or declining during last years, despite many investments in energy infrastructure. Besides, it is known that power plants in almost all MENA countries operate with high levels of idle capacity across the year, due to peaks in power demands because of hot summers. It increases unit costs for electricity generated, partially reducing the attractiveness of these investments (The Economist 2011, 9-10).

Natural gas is still the main source of electricity generation for MENA states (see Chart 1). Countries in the region have pondered the uncertain availability of gas supplies and opted for fuel diversification. Additionally, rising prices have worried many gas importers. In this context, the government of Dubai announced the extension of a planned 1,500 mw coal-fired power generation facility in order to reduce dependence on gas. Furthermore, the governments of Saudi Arabia, Oman and Bahrain also have considered building coal-fired energy capacity. Even so, assessments of the US Energy Information Administration estimate a growing dependence on natural gas for such countries. They have clearly opted for energy security instead of sustainable standards, given that thermal plants fed with coal bring forth vast amounts of CO2 emissions.

Chart 1: Primacy of Gas: MENA net electricity generation by fuel, 2008-15. Adapted by the authors from The Economist (2011, 12).

18 The Economist (2011, 9-10) points out many examples of capacity expansion plans, starting by “Saudi Arabia finalized arrangements for a 4,000-mw combined-cycle gas-fired power plant, at Qurayyah, on the east coast of the country, which will be the largest such independent plant in the world. In all, Saudi Arabia plans some US$80bn of projects in the years to 2020, expanding its capacity to 70,000 mw, from some 50,000 mw currently. Meanwhile, Egypt is planning five new power plants around the country, operated by independent power producers, which are set to add some 3,500 mw of capacity to Egypt’s total energy production.”
The wasteful consumption of energy in the region is an issue of great concern. Widespread government subsidies give consumers little incentive to use power more efficiently (Darbouche 2012; The Economist 2011, 5; IEA 2010, 569-572). If countries in the region do not create policies aiming to promote efficient power use among households, through advertising campaigns and/or taxation, internal demand is unlikely to diminish. Ending subsidies, however, would cause considerable political damage to current governments, since there is a common expectation among regional population that power should be subsidized (The Economist 2011, 15-16).

The International Energy Agency estimates that oil-based income is likely to be reduced. According to IEA, “due to rising prices for oil, and, therefore, the rising value of oil exports, the share of oil-fired generation in the electricity mix is projected to decline from 36% in 2008 to 13% by 2035” (IEA 2010, 236). Middle East countries expended around US$0.4 trillion in new generating capacity from 2010 to 2035, with about one-third spent on gas-fired plants. The increasing share of fossil-fuels in power generation will raise CO2 emissions from 0.5Gt\(^1\) in 2010 to 0.7Gt by 2035 (IEA 2010, 236).

Even though GCC accounts for 10% of the region’s population and 50% of GDP, it hosts more than 80% of private infrastructure investments of the region, especially Saudi Arabia, UAE, Qatar and Oman (World Bank 2012, 2). Saudi Arabia holds more than 30% of the regions’ proven crude oil reserves and is the largest foreign direct investment recipient, with 44% of all FDI flow to the region. Following Saudi Arabia, Egypt, Qatar and Lebanon are the top FDI recipients, with 10%, 9% and 8% of total inflow, respectively (O’Sullivan, Rey and Mendez 2012, 17-19).

In order to best evaluate infrastructure needs of the region, it is worth pointing out distinctions among countries. Table 1 hints that MICs may tend to diminish fossil-based energy mixes, reducing their dependency on non-borrowing oil-exporting countries. In the World Bank Action Plan for MENA infrastructure, states were arranged as follows:

<table>
<thead>
<tr>
<th>Non borrowing oil-exporting countries</th>
<th>Gulf Cooperation Council nations(GCC)(^1), Libya, Algeria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle Income Countries (MICs)</td>
<td>Morocco, Tunisia, Egypt, Jordan, Lebanon, Syria, Iraq and Iran</td>
</tr>
<tr>
<td>Low Income Countries (LICs)</td>
<td>Djibouti, Yemen</td>
</tr>
<tr>
<td>Special financing</td>
<td>West Bank and Gaza (WB&amp;G)</td>
</tr>
</tbody>
</table>

Table 2: MENA countries by income level (World Bank 2012).

\(^1\) One gigatonne (Gt) of CO2 equals to 10\(^9\) tonnes of carbon dioxide. For more information, see Taylor (2011).
Countries endowed with many natural resources must try to turn oil income into real development, requiring clever and solid national industrial policies. MENA region’s proven crude oil reserves comprise 58% of all the reserves in the world. As indicated in Chart 2, it is a huge share of world’s proven crude oil reserves. There is a common challenge not to depend on commodities exports without appropriate industrial promotion that could create stable income growth rates. In 2011, after Fukushima’s nuclear crisis, Japan closed many of its nuclear power plants. It increased international demand for natural gas, leading to higher prices. This reinforced some already established concerns about the risks of depending on very volatile commodities (World Bank 2012, 11).

2.3. Telecommunications infrastructure

Telecommunications infrastructure development in MENA region is still very incipient. Currently, telephony services are the most developed field, granting the region a rate of population covered by mobile phone network of 93%, a level only witnessed in industrialized countries. Delay in obtaining a mainline telephone connection lasts 37.8 days on average, figuring on a common medium for developing countries. Internet operation, on the other hand, seems to be a promising business in the years to come, since only 21.5% of total population are internet users. Telecom spreading across the region has faced many challenges to keep pace with world’s development rate, due mainly to regulatory obsolescence, state-owned monopolies and lack of private sector investments (World Bank...
The last UN New IT report made clear the progress of Information Technology in MENA region. According to Iloubnan (2012), “MENA region has witnessed a significant growth in technology infrastructure. Through investment in networking channels, MENA governments had set the foundations of vital digital environment”. This change is a consequence both of gradual economic development and of institutional changes of major Arabic countries’ regulatory framework. The new regulatory trend is being strongly fostered in countries like Morocco, Jordan, Egypt and Lebanon, where countries are trying to increase private sector competition and investments through licenses, instead of public monopolies.

Further development happened in the Kingdom of Bahrain, comprised in the top 15 countries of UN e-Government Survey 2010, and Qatar, positioned among the top 50. ITU’s Information and Communication Technology (ICT) Development Index ranked Saudi Arabia and Qatar among the top 10 economies with great improvements in “Access” and “Use” subdimensions (Iloubnan 2012). Nowadays, developing telecom infrastructure and overall ICT technologies is an essential goal for developing countries, since it is a source of economic dynamism, finances security and public cybersecurity.

Recently, many GCC members have designed economic zones to promote substantial progress for telecom and ICT infrastructure. Economic zones are areas where residents and companies are exempt from some taxes. El-Darwiche et al. (2008) argues that this trend in some MENA countries, especially GCC members, is to “use these zones as vehicles for spurring economic diversification and decreasing dependency on the oil sector. Such zones can attract new types of tenants with skills and other resources to contribute to the investment and establishment of new, globally competitive industries, especially service-based industries. Some countries are developing grand plans that extend the traditional concept of zones to economic cities” (El-Darwiche, et al. 2008).

Progressively, more countries strive to develop policies alike, promoting regional competition to be the regional leader in ICT facilities and services offerings (El-Darwiche, et al. 2008). Economic zones geographically restrain urban development and ease political control over economic exploitation of one country’s territory. This is the reason why they are being increasingly created in least institutionally open markets. GCC governments wish to foster ICT industries in these zones in order to improve availability of high-capacity and high-speed infrastructure, grant reliable access to advanced ICT facilities and services and provide comprehensive ICT management services (El-Darwiche, et al. 2008).

Many regulatory frameworks are bottlenecks for the construction of networks, their management and service provision. In Dubai, operators can manage in-building, non-interconnected systems, but could not aggregate traffic, install switches or otherwise engage in the resale of telecommunications services until
recently. Free trade zones allowed projects such as Dubai Internet City and Dubai Media City, besides prompting distance education sector to evolve in the UAE (El-Darwiche, et al. 2008).

Newly established ICT companies have suffered from the lack of proper telecom infrastructure. This sort of facilities is a source of revenue generation and cost optimization and such a lack of infrastructure make new and old operators in the MENA region endeavor to maintain healthy profit margins (Booz & Company 2007, 1). As a lack of railways increase product delivery costs and, thus, final prices, telecom infrastructure development decreases intra-firm communication costs, transactions costs and secure many financial operations, allowing projects that would not be possible otherwise. Moreover, e-governance enhances public demand for bureaucratic transparency and data availability. After evaluating some MENA telecom companies, Booz & Company (2007, 1) points out that company sharing of telecom infrastructure is also a form of cost optimization and can shorten capital expenditure components by 40%.

Regional sharing of infrastructure may come about through simple unbundling and national roaming or through collocation and spectrum sharing. In the MENA region, national roaming is extensively executed, like in Jordan, Morocco, Oman, Saudi Arabia and the UAE, while Egypt and Saudi Arabia prompt to develop unbundling. The liberalization trend, coupled with many new operators, has increased regional demand for cables and optical fibers. Only in 2005-7, more than 10 fixed and mobile licenses were issued. Telecom licenses should be growing even faster since then, but official data is hardly attainable (Booz & Company 2007, 1-2).

Spectrum sharing is expected to be addressed by local governments soon, considering the scarcity of spectrum given to new licenses (Booz & Company 2007). Like usual pipelines, telecommunications infrastructure must be decided on a regional basis, especially for landlocked countries. Such investments usually require huge international long term loans that are landed under strict criteria, like political stability and solid historical of debts discharge (Booz & Company 2007).

2.4. Infrastructure financing in the MENA region

Besides all the importance pictured so far, infrastructure is economically vital for a society due to its capacity of generating jobs. Unemployment, especially for young people, is a major issue in MENA countries. The region's labor force has been growing at a rapid pace, but job creation has been lagging behind. The need to increase employment levels has become quickly urgent in the context of the Arab Spring. Infrastructure investments have the capacity to help addressing this

---

20 “When looking at the case of two specific mobile operators in the MENA region, savings can amount to USD250 million over a period of 3 years, should they decide to join forces in deploying their respective networks” (Booz & Company, 2007, 1).
Board of Executive Directors of the World Bank

problem. Spending on infrastructure boosted employment in the construction sector in the 2000s, accounting for 30% of the job creation in MENA. In the next 10 years, the infrastructure sector has the potential to generate 2.5 million in direct, indirect and induced infrastructure-related jobs just by meeting the infrastructure investment needs of about 6.9 percent of gross domestic product (about US$106 billion per year) for the region. Nevertheless, job creation potential varies greatly across countries, as does the ability to finance infrastructure demands (World Bank 2012b).

Infrastructure projects that require massive investment, such as transportation, energy and telecommunications, have been traditionally state-owned all over the world. It is not different in MENA, where state presence is strong and private and local business incipient. The huge amount of capital needed is a barrier for private investors, while governments prefer to keep strategic industries at their control. However, the poor performances of state ownership and operations, like low operating efficiency, labor redundancy, politically motivated tariff setting, and underinvestment threatening the sustainability of the system initiated a tendency to appeal to private finance and management all over the world in the last decades (COMCEC 2013).

Particularly in the MENA region, high demographic growth and rapid urbanization have resulted in strong demands for infrastructure services that most governments struggle to cope with. In addition, the recent international financial crisis posed challenges for exclusive public or private investments, resulting in the delay of many projects. Investment banks are facing cash shortage, pension funds have limitations in terms of direct investment, and infrastructure funds are struggling to raise cash. Sovereign wealth funds offer opportunities for infrastructure investments in MENA, but they have traditionally been used for commodity investments and investments abroad (World Bank 2009).

![Chart 3: Public-Private Partnerships in regional perspective (source: COMCEC, 2013)](image-url)
Public-Private Partnerships (PPPs) or Initiatives (PPI) can be a solution to overcome this investment gap. PPPs for infrastructure projects provide more efficient and cheaper services than public ones, whereas governments are benefitted by gaining a larger fiscal space. Even so, if not well designed, PPPs can lead to failure. Investments of such kind require a delicate balancing of government’s objectives, investor’s interest, financing sources and business opportunity (World Bank 2009). So far, such partnerships have been limited in the region. Compared to the rest of the world, MENA has the lowest number of PPP projects (see Chart 3) (COMCEC 2013).

According to an Ernst & Young study (apud Bloominvest Bank 2011), Egypt is the only MENA country where two out of three indicators assessing the PPP regulation are rated “well developed”. Some of the challenges for implementing PPPs in the region are the unclear recognition of rights and obligations of public and private parties, insufficient regulatory framework, lack of transparency and accountability, and mistrust in the political environment. Such problems must be addressed for the region to become attractive for private capital and then meet its infrastructure demands (Bloominvest Bank 2011).

3. Previous international action

Infrastructure projects in the MENA region are financed by a network of regional and international organizations. International bodies like the World Bank and the Organisation for Economic Co-operation and Development have an important role for the fostering of the region’s development. On the other hand, other organizations work on more specific subregions in the MENA territory, as the Gulf Cooperation Council (GCC), the African Development Bank (AfDB), the Organization of Islamic Cooperation (OIC), the Islamic Development Bank (IDB), the European investment Bank (EIB), the Organization of the Petroleum

---

IFC stands for International Finance Corporation, an international financial institution member of the World Bank Group
Exporting Countries (OPEC) and other national agencies like the Overseas Private Investment Corporation (OPIC), a US government’s development finance institution.

The Bank Information Center (BIC), when analyzing data from 2002 to 2007, gathered the share of international financial institutions in the financing of projects for the MENA region. The EIB stands out as the main lender for the region over the analyzed period.

3.1. World Bank

Since 2011, infrastructure has been the largest business line for the World Bank Group, with US$26 billion in commitments and investments in the sector (WORLD BANK 2011). The MENA region has recently become a special area of attention for the World Bank when regarding infrastructure. The Bank estimates that investments between US$75 billion and US$100 billion must be made annually to sustain the growth rates that have been achieved in recent years in the region. Such amount cannot be afforded by the private sector on its own (WORLD BANK 2010). To address the problem, the World Bank, along with other partners, launched the Arab Financing Facility for Infrastructure (AFFI) in 2010 (WORLD BANK 2011).

In the last decade, the World Bank undertook a major project called the Africa Infrastructure Country Diagnostic (AICD), whose aim was to expand knowledge on the state of Africa’s infrastructure. A report containing the main results was published in 2009, called “Africa’s Infrastructure: A Time for Transformation”, in which the scenarios of 24 Sub-Saharan countries were analyzed. The study, which was funded by France, Germany, United Kingdom, the European Union (EU), and African institutions, aimed to stimulate public actors and development partners in their efforts to support Africa’s infrastructure. The successor to the AICD, the Africa Infrastructure Knowledge Programme, which is housed in the African Development Bank, will expand the AICD knowledge and carry out capacity building for national statistics offices across Africa (OECD 2012).

Nowadays, the World Bank counts primarily on seventeen investment projects related to energy and electricity improving in the MENA region21, summing up to US$ 2.1 billion. The projects comprise almost all countries in the region and try to compensate the lack of energy efficiency of low-income countries. Besides projects

21 “The Djibouti Power Access and Diversification project, the Egypt El-Tebbin project, the Egypt Ain Sokhna Power project, the Egypt Natural Gas Connections project, the Egypt Giza North Project, the Egypt Windpower Development project, the Yemen Power Sector project, the Yemen Rural Energy Access project, the Iraq Dokan and Derbandikhan Emergency Hydropower project, the Iraq Emergency Electricity Reconstruction project, Iraq Integrated National Energy Strategy, the Lebanon Emergency Power Reform, the West Bank and Gaza Electric Utility Management project, the Morocco ONE Support project and the Tunisia Energy Efficiency project], plus a Partial Risk Guarantee for the Jordan Amman East Power Plant project, four Global Environmental Fund (GEF) operations amounting to a total of US$107.5 million (the Jordan Promotion of a Wind Power Market, the Tunisia Energy Efficiency Program project, the Morocco Integrated Solar project and the Egypt Kureimat Solar Thermal Power project)” (World Bank, 2010).
design and implementation, the Bank carries out analytical and advisory energy work in many countries of the region22, ranging from electricity grid expansion to the use of renewable sources. Finally, the Bank is also developing regional studies on the Maghreb Energy Market and Maghreb Energy Integration and Trade.

In 2012, the World Bank announced the new Broadband Connectivity Initiative for Middle East and North Africa. This initiative will evaluate the potential for developing “regional broadband backbone networks in MENA and will use a new approach that leverages already-deployed infrastructure from other utilities, such as electricity, transport or oil and gas” (World Bank 2013). This project is supported by the Public Private Infrastructure Advisory Facility (PPIAF) and the Korean Government. Besides, it will track bottlenecks to broadband connectivity, including case studies on Egypt, Jordan, Morocco and Tunisia.

Lending to MENA’s transport sector sum up almost US$1.1 billion. The budget has been relatively small if compared to other regions, but it has picked up since 2009. There are investment projects under implementation in Morocco, Lebanon, Jordan, Yemen, Iraq and Egypt. The MENA Transport Group is involved in a technical co-operation program with the GCC countries. Moreover, analytical and advisory activities (AAA) are performed by the Bank, as clients seek assistance in the design and evaluation of transport policies and the transfer of international know-how (WORLD BANK, 2010). The World Bank also administers the Global Road Safety Facility, established in 2006, a multi-partner initiative that provides loans and analyses that help countries address road safety problems (GRSF 2013).

Finally, it is worth noting that the World Bank has not given much attention to telecom infrastructure projects for the region as a whole. Even so, it approved a project to help implement a “comprehensive package of pro-competitive reforms in the telecommunications, postal and information technology sectors” in Morocco. The investment cost around US$ 101 million for the IBRD (World Bank 2000).

3.2. United Nations (UNESCWA and UNECA)

In 1999, under the sponsorship of the United Nations Economic and Social Commission for Western Asia (UN-ESCWA), the Mashreq countries set up a plan named “Integrated Transport System in the Arab Mashreq” (ITSAM), which called for more transport linkages among them. In accordance with ITSAM, UN-ESCWA launched the “International Agreement on Roads in the Mashreq Region” in 2001. Countries gradually became signatories. Twenty-three roads were designed, and over 70% of the project has already been implemented by governments (UN-ESCWA 2011).

A second initiative came about in 2003, called “International Agreement on Railways in the Mashreq Region”. Sixteen railways were planned, but over half of

22 Being precise, in Djibouti, Egypt, Syria, Jordan, Lebanon, Tunisia, Morocco, West Bank, Gaza, and Yemen.
the paths have not been constructed so far, due to the historical lack of railways in the region. When roads and railways are finished, the main transport corridor in the north-south axis will connect Yemen, Saudi Arabia, Jordan, and Syria (with possible extent to Turkey and Europe), while Iran, Iraq, Jordan, Palestine, and Egypt will be linked in the east-west axis (with possible extent to Central Asia and North Africa) (see Figure 5) (UN-ESCWA 2011).

The United Nations Economic Commission for Africa (UNECA), in partnership with the African Development Bank and the African Union, supports the development of the Trans-African Highway Network. The project has the objective of promoting trade and reducing poverty in African countries by building a continental network of roads among them. In the Maghreb region, the Cairo-Dakar Highway, described in the previous section, is part of that project (ADB 2003).

3.3. Organisation of Islamic Cooperation

The Organisation of Islamic Cooperation (OIC), founded in 1969, is comprised of 57 countries, whose citizenship is significantly composed by Muslim people. The main purposes of the organization are to protect the interests of the Islamists (1.5 billion people worldwide) and to promote cooperation among member states.
All Arab countries in the MENA region participate in the OIC (COMCEC 2011).

Enhancement of multilateral cooperation in the transport sector has been endorsed by the OIC over the years. The Committee for Economic and Commercial Cooperation (COMCEC), responsible for such subject, lists “enhancing mobility” as one of its three main objectives (the other two are strengthening solidarity and improving governance). Transportation is also classified by the COMCEC as one of the three priority sectors to receive attention, alongside agriculture and tourism (COMCEC 2013).

Recently, transportation issues have gained attention inside the OIC. In 2011, it was launched the “Transport Cooperation Framework”, written by experts on the subject. The Turkish government was the main player behind the initiative. The document orientated countries to build interconnected transport networks among them and with the rest of the world. It also called for harmonization of national legislations on transport, improvement of border crossing facilities, creation of programs for sharing of best practices, and gradual liberalization on transportation. To address the lack of resources and funding, the document recommended the implementation of Public-Private Partnerships (COMCEC 2011).

3.4. Islamic Development Bank

The Islamic Development Bank (IDB) was created by the OIC members in 1975. It is in charge of fostering development through economic assistance to both public and private sectors. Infrastructure has been an area greatly assisted by the IDB over the years. From 1975 to 2008, US$ 23 billion have been spent on infrastructure projects of OIC members all over the world. Transport, energy and social services received each 21% of it, while 2% was destined to telecom. Over half of that amount was spent in the MENA region (IDB 2012).

The IDB classifies the alleviation of poverty and the integration of Arab countries as two of its main priorities. Transport sector is seen as a crucial area for achieving both goals. There are three projects on transportation being currently financed by the IDB in the MENA region: the Queen Aalia Airport in Jordan (US$ 100 million), the Doraleh Container Terminal in Djibouti (US$ 65 million) and the Hajj Terminal in Saudi Arabia (US$ 100 million). Besides the IDB funding, private sponsors are investing in these projects, as they are all Public-Private Partnerships (IDB 2013).

MENA countries rank on the top of the Islamic Development Bank’s resources for the energy sector. Infrastructure approvals of the IDB reached over US$ 380 million in Iran, US$ 330 million in Morocco and US$ 250 million in Egypt, having the energy sector received the highest allocation of the Bank’s infrastructure financing budget (Islamic Development Bank 2012, 21). In 2010, representatives of the MENA countries launched the MENA-OECD Task Force on Energy. According to OECD, “its work focuses on formulating policy recommendations
to help spur investment in renewable energy in the MENA region, letting policy makers benefit from the private sector’s view and experience” (OECD).

3.5. League of Arab States

The League of Arab States (LAS), commonly known as Arab League, was created in 1945 as a forum to provide collective consideration on affairs of its members. All Arab countries in the MENA region participate in the organization. Ministerial councils divided by themes are gathered periodically to deliberate and make recommendations to governments. In 1968, LAS countries approved the creation of the Arab Fund for Social and Economic Development, an institution that provides financing and expertise for public and private investment projects. Priority is given to joint Arab initiatives, since achieving Arab integration and consolidating cooperation among LAS member countries are the main objectives of the Arab Fund (AFESD 2012).

Since 2010, the Council of Arab Ministers of Transport has been calling on member countries to improve their road systems in order to enhance trade among them. The Council asked for more efficiency of the national road transport industries, greater professionalism in the sector and enhanced road safety. In June 2013, responding to the LAS request, the Islamic Development Bank, the International Road Union and the Arab Union of Land Transport created a joint initiative. The group will make studies and collect data on road safety and road transport facilitation. It will also create professional training centers to enhance qualification of transport professionals (IRU 2013).

3.6. Gulf Cooperation Council

The Gulf Cooperation Council is composed by Saudi Arabia, Bahrain, Oman, Kuwait, Qatar and UAE. Historically, the GCC countries have focused its transportation investments on roads. High-quality paved roads in most of them are close to 100 percent of the total road network. Meanwhile, railways are almost in existence. In Saudi Arabia, the only GCC country to have railways, the network is still incipient. Nevertheless, growing population and trade in the region are pressing for transport infrastructure changes, as congestion on roads has increased. It has spurred governments to look at intra and inter-city railways as a viable option (IDB 2011).

In 2003, the GCC launched a major railway project to connect its member countries. Most of the governments completed feasibility studies for national railway networks and started construction in the late years. When coupled, the initiatives will form a pan-GCC railway (IDB 2011). The network will stretch from Kuwait to Oman, passing through Saudi Arabia, Bahrain, Qatar and the UAE. The full network is supposed to have 3,000 kilometers in length, including a planned extension to Yemen. The cost of the entire project could reach 20 to 25
billion dollars. If developed accordingly to the plan, the system is likely to become operational by 2017 (Bloominvest Bank 2011).

The Gulf Cooperation Council Interconnection Authority (GCCIA) runs an interconnection grid project that will enable power surpluses to be traded among countries, broadening the range of available energy sources and ensuring greater security for suppliers (The Economist 2008). The GCC’s grid has been seen as an example to be followed by neighbor states. Benefits of scale generated by this project may induce countries to expand the grid. In this regard, Egypt, Libya, Jordan, Palestine, Syria, Iraq, Turkey and Lebanon are planning similar facilities under the Eight Country Interconnection Project. Libya, Tunisia, Algeria and Morocco, under the Maghreb Countries Interconnection, also develop their own interconnection grid. Many of these cooperation projects, once lead by Egyptian and Libyan representatives, face serious threats and challenges of stagnation after Arab Spring and the enhancement of political instability (Ebrahim 2012).

3.7. Trans-Arab Railway Project

In 1979, representatives of the Arab countries gathered in a meeting to discuss the creation of a multilateral railway project for the MENA region. In 1992, two possible routes were designed: one from Syria, via Jordan down to Saudi Arabia; and another from Egypt across North Africa to Mauritania. However, the project, called trans-Arab railway, has not gone any further. Only 11, out of the 22 Arab countries that are supposed to be connected through this network, have internal railway systems, totaling 25,000 kilometers in length. It is estimated that, in order to link all the countries, twice as much railway is needed at an estimated cost of US$ 25 billion (Bloominvest Bank 2011).

3.8 African Development Bank

The African Development Bank (AfDB) was created in 1963 with the main task of supporting the social and economic development of African countries through financing and policy advice. Its resources come currently from 53 regional member countries and 24 non-African countries. The AfDB’s Strategy for 2013-2022 states that infrastructure development will be a priority in the next ten years, alongside other four points: regional economic integration, private sector development, governance and accountability, and qualification of workers. Nearly US$100 billion are required to meet Africa’s annual infrastructure investment needs, but current investments cover about half of that amount. Bridging the infrastructure gap could increase GDP growth by an estimated 2 percentage points a year (AfDB 2013).

In order to meet financial requirements of infrastructure investments, the AfDB is planning to create innovative capital market instruments, such as infrastructure bonds, which would be issued by governments to fund long-term
projects. In addition to addressing physical infrastructure needs, the Bank will enhance its support for policy, institutional and regulatory reforms to promote private participation, such as through providing finance and technical assistance to enterprises. AfDB encourages African countries to establish more Public-Private Partnerships (AfDB 2013).

In the transport sector, the AfDB focuses on both national and regional levels. It estimates that high transport costs add 75% to the price of African goods. In order to develop the sector, the Bank emphasizes the importance of building regional corridors that permit the integration of different modes of transport. Since 2008, it has helped build and rehabilitate 25,000 kilometers of main roads and feeder roads, linking rural areas to transport corridors and markets, as well as 467 kilometers of cross-border roads. These interventions contributed to a significant increase in intra-African trade, which more than doubled from US$47 billion in 2005 to US$108 billion in 2011 (AfDB 2013).

In the energy sector, the AfDB has specially supported Egypt during the last years of increasing energy demands. Its first official loan took place in July 2005, lending around €175.9 million to co-finance the Kureimat Power Plant Project, near Cairo, in a close partnership with the Egyptian Electricity Holding Company (EEHC). This loan aimed to build a new 750 MW combined cycle power generation module at the El-Kureimat Power Plant complex. Whereas EEHC financed 40 percent of the whole project, some of the country’s partners, like the AfDB itself, funded the remaining 60%. Nowadays, the plant supplies the national grid with about 5,913 GWh/year. An AfDB-CTB partnership is also mobilizing two wind and solar energy projects to Egypt (AfDB 2012). Aware of the fact that North Africa is the leading region in wind energy markets in Africa, AfDB plans further projects to increase the region wind capacity, especially in Egypt and Morocco (AfDB 2013).

3.9. African Union

The African Union was created in 2002 as a replacement of the Organization of African Unity (1963-2002) with the objective to strengthen cooperation among African countries in all fields of action. The New Partnership for Africa’s Development (NEPAD) is an African Union initiative ratified in 2002 to address African poverty. NEPAD’s coordinating agency manages six thematic areas, including one called “regional integration and infrastructure”. The association of infrastructure and African integration reflects NEPAD’s vision that both issues are connected. Adequate infrastructure enables inter-country trade, which helps to bring countries closer to each other. NEPAD’s role is to promote activities that set policies, priorities and programs of action regarding infrastructure development (NEPAD 2013).

In 2002, the NEPAD created the Short Term Action Plan (STAP), in which a series of projects to develop infrastructure at the regional level were designed.
Most of the projects are now at an advanced stage of implementation and some have been completed, mainly with the support of the African Development Bank. In 2010, it launched the “African Union/NEPAD Action Plan 2010-2015”, listing over 30 priority projects to increase integration among countries in the sectors of transport, energy, telecom industries and water resources. The NEPAD also has the Infrastructure Project Preparation Facility (IPPF), a fund set up to assist proponents to prepare high quality infrastructure proposals, but its resources are scarce (AAP 2009).

The NEPAD maintains a partnership with the OECD called “NEPAD-OECD Africa Investment Initiative”. A project named “Aid for Investment in Africa’s Infrastructure” seeks to leverage private investment in African countries. Under that project, in 2012, the OECD launched a report called “Mapping Support for Africa’s Infrastructure Investment”, in which it studied funding possibilities for infrastructure projects. Besides development agencies and finance institutions, OECD claims that African governments must enhance dialogue with enterprises and emerging economies, especially China, in order to improve infrastructure (OECD 2012).

3.10. Programme for Infrastructure Development in Africa

The Programme for Infrastructure Development in Africa (PIDA) was created in 2010 by a partnership among the African Union Commission, the NEPAD and the African Development Bank. PIDA aims to bring together the initiatives in the infrastructure sector of those three institutions. It has the objective to design a common African strategic framework in the areas of energy, transport, trans-boundary water resources, and information and communication technologies (ICT). The PIDA budget of 7.8 million Euros is financed by the European Union, the Islamic Development Bank, the African Water Facility, the NEPAD, the Nigeria Technical Cooperation Fund, and United Kingdom’s Department of International Development (AU 2010).

Studies made by the PIDA will assist in the creation of a common program on Africa’s infrastructure based on strategic objectives and sector polices over short, medium and long term (until 2030). Such strategic options will be formulated in accordance with proposals from an independent advisory panel of experts, as well as from consultative workshops to be hold at sector, regional and continental levels. PIDA also aims to create an infrastructure database to enhance knowledge sharing among African countries. PIDA projects are scheduled to be implemented between 2020 and 2040 (AU 2010).

3.11. Infrastructure Consortium for Africa

The Infrastructure Consortium for Africa (ICA) was established in 2005, following a recommendation of the G8 Summit of that year. The ICA encourages
both public and private investments to meet Africa's infrastructure needs. It is not a financing agency, but a platform to catalyze donor and private sector financing for transport, energy, telecommunication and water projects. It makes studies, collects data, promotes knowledge sharing, and facilitates dialogue among governments and investors. Its members include the G8 countries, the World Bank Group, the African Development Bank Group, the European Commission, the European Investment Bank and the Development Bank of Southern Africa. It is planning to extend membership to all G20 countries. The ICA has a small secretariat that is hosted by the African Development Bank in Tunis, Tunisia (ICA 2013).

3.12. European Union-Africa Infrastructure Partnership

The European Union-Africa Infrastructure Partnership covers all infrastructure sectors. In 2007, it established the Infrastructure Trust Fund, through which grants from the European Commission and EU Member States are blended with loans from the European Investment Bank, bilateral European financing institutions and the African Development Bank. In 2012, contribution amounted to €392 million. The Fund provides interest rate subsidies on medium/long-term project loans; technical assistance, including feasibility studies; and insurance to cover country risks during the inception phase of the project. It has an Executive Committee, composed of the donors to the Fund (EIB 2013).


In 5 February 2013, the European International Bank approved the creation of the Global Energy Efficiency and Renewable Energy Fund (GEEREF). It finances Regional Funds to invest in target projects and companies dedicated to energy efficiency and renewable energy in order to support access to clean energy in developing countries and economies in transition. This project assists not only MENA countries, but also non-EU Eastern Europe, Russia and Central Asia, Latin America and the Caribbean. In the same year, EIB also approved the construction and operation of a greenfield wind Independent Power Producer (IPP) to produce 117 MW electricity in Jordan (European Investment Bank 2012).

3.14. Climate Investment Funds

Recently, the Clean Technology Fund, an initiative of the Climate Investment Funds, has supported projects related to low carbon energy production in some MENA countries. Regarding climate mitigation, the Fund already granted a total of US$1.2 billion for MENA: US$750 million to design and implement a MENA Concentrated Solar Power (CSP) plan and US$475 million to develop wind power and energy efficiency in both Egypt and Morocco (WORLD BANK 2010).
3.15. Overseas Private Investment Corporation

In 2008, the Overseas Private Investment Corporation, a US government’s development finance institution, established the Middle East & Asia Capital Partners Clean Energy Fund II, a fund to promote full range of clean-energy opportunities, including greenfield projects, brownfield/expansion, privatizations, financial restructurings and platform companies. In 2012, OPIC approved a project to provide working capital for the expansion and provision of design services, installation services, and financing of solar energy solutions for its clients in Algeria, Egypt, Jordan, Lebanon, Morocco, and Tunisia (Overseas Private Investment Corporation 2012, 1).

3.16. MENA Telecom Infrastructure Fund

MENA countries willing to address telecom infrastructure created the MENA Telecom Infrastructure Fund (Menatif), focusing on enhancing broadband industry in the region. Pension Daily (2012) says Menatif is “an open-ended fund that will invest in both public and private companies which fulfill its stringent criteria”. Its exigencies include orientation towards facilitating data traffic and the need of ownership of or control over the underlying network infrastructure, among others. Besides, the Fund owns over US$250 million, is fully Shariah compliant, and only seasoned professionals who have more than 50 years of telecom experience may lead it.

3.17. International Telecommunication Union

The total amount of telecom infrastructure projects in the MENA region reached more than US$ 37,000 million, financed mainly by the International Telecommunication Union (ITU)24. The ITU has supported many projects aiming to improve telecom capacities in the MENA region. The Connect Arab Summit 2012 paved the way for initiatives regarding themes like Arab ICT highway, e-services, capacity building, employment creation in the future ICT generation and cyber-security. Along with its member States, ITU proposed the Wireless Broadband Master Plan, a project to develop guidelines and master plans for the “implementation and development of wireless broadband in the Arab Region” (International Telecommunication Union 2012, 1-2).

The ITU also plans to develop harmonized guidelines for the development and implementation of roadmaps for the transition from analogue to digital broadcasting and other broadcasting policies. Investing over US$ 30,000, ITU created the “Broadband Networks”, willing to provide “low cost digital access to public institutions […] and for underserved populations, including those in

---


24 Skylogic, the Arab Information and Communication Technologies Organization and other national governments also funded approved projects.
rural and remote areas in the Arab States by development and implementation of broadband connectivity and ICT applications” (International Telecommunications Union 2012, 2).

4. Bloc positions

The United Kingdom has had relevant interests in the MENA region for a long time. The British believe that its companies’ “expertise and products are central to many of the MENA regions major transport projects” (Middle East Association 2013a) and it is interested in the region’s investment opportunities and markets. It is worth to cite the existence of the Middle East Association, “the UK’s leading business forum for promoting trade and investment with the Middle East and North Africa” (Middle East Association 2013b). Its main concerns are the regions where British companies have investments or prospective business. In addition, “there are extensive government led investment programmes across the region [North Africa] which offer opportunities for UK business” (UK Trade & Investment 2013). This trend could be replicated to other European countries whose enterprises invest in the MENA region. For example, “DEG, a unit of German state development bank KfW, plans to invest up to 140 million euros ($188 million) in Middle Eastern and North African (MENA) private firms next year” (Reuters 2013).

The UK, as well as France, Germany, Norway and Italy, representing the Europe Union, expect the new democratic governments elected after the Arab Spring to bring stability for the region, essential for its investments and supply25. Despite other kinds of involvement in the region, “trade continues to occupy the EU’s primary role in the MENA region,”26. Besides trade, EU is also relevant for the “emerging governments’ need for funding to implement new social policies” (Simms and Koru 2013, 5). MENA region represents a relevant source of fuels to Europe. In general, the main suppliers of the region are Libya, Algeria and Saudi Arabia27 (International Trade Center 2013). Projects that connect these main suppliers to Europe are interesting for most of the Europeans. On the other hand, projects that connect other oil and gas producers are also aspired, due to the European concern of diversifying its sources and guaranteeing energy security (Ratner, et al. 2013). Norway, for instance, does not import high quantities of fuel because it has its own resources; its exports go mostly to European countries. It is noteworthy that, due to the sanctions that prohibits European Union nations’

25 As an example, Libya supplies 15.1% of Italian mineral fuels. Summing with Algerian export, this shares goes up to 25.5% (International Trade Center 2013); the instability in this region, therefore, would be is really harmful for Italian energy fuel imports.

26 “The EU outstripped Egypt’s second largest trading partner, the United States, by 400% for gross imports and 500% for gross exports. Saudi Arabia, Morocco, Egypt and Tunisia all fall within the thirty most valued EU export consumers. The strength of the EU’s trade relationship with its Mediterranean partners to the south offers a consistent and positive channel for EU foreign policy” (Simms and Koru 2013, 2).

27 To see countries’ exports and imports, classified by country or product traded, access http://www.trademap.org.
imports of oil from Iran (Cordesman and Gold 2013), infrastructures projects that involve Tehran are not priority. Even so, some episodes\textsuperscript{28} have unfolding better relations between Europe and Iran recently. If it continues, an infrastructure project would be ideal to reestablish the relationship.

India and China have strong relations with the MENA region, given its concerns about energy security, food supply and natural resources, all essential to its big and rising populations. Their demands “have been driving new relationships with MENA countries based not only on energy but also on trade, investment, and political ties” (Pigato 2009, xvii). Although India’s investments in Africa are not so relevant \textit{vis à vis} the Chinese ones, its ties with the continent are relevant and tend to enlarge. In the Middle East, there is a similar trend. To give an example, India’s investments in Iran and Afghanistan are relevant; it was involved in the construction of the Chahbahar Port in the Persian country, and now is investing in its expansion, as well as the road connecting Iran to Afghanistan (named Delaram-Zaranj, or 606 rout) (Pant 2009, 293). These infrastructures are essential to Indian exports to Iran and Afghanistan\textsuperscript{29}.

China’s investments in the region are notorious. In North Africa, Algeria is the main destiny of its investments (stock of US$ 10.5 billion in 2012, mostly in transportation), followed by Libya and Egypt. In the Middle East, Iran is the country that receives more capital (US$ 16.8 billion, mostly in energy), followed by Saudi Arabia (US$ 12.9 billion, mostly in metals and energy), UAE and Iraq (The Heritage Foundation 2013). It is important to note that its investments in all sectors give China meaningful elements of soft power in the region and eases its exports to those markets, since North Africa, in particular, has a really poor infrastructure. A relevant problem of the relations between MENA and the two Asiatic countries is the tough competition the latter impose, through their growing exports, to the “non-oil-producing countries, especially in the Maghreb […] in both third and domestic markets” (Pigato 2009, xvii). On the other hand, China and India can be relevant markets for the MENA countries not only for energy, but also “fertilizers, petrochemicals, crude materials, agricultural products, and a number of manufactured goods where MENA has strong comparative advantages” (Pigato 2009, xviii). MENA region countries, China and India must focus on projects that integrate the region ease transportation of fuels and other exports as far as the Indian Ocean\textsuperscript{30}.

Malaysia is a net exporter of oil and gas, not depending, therefore, on MENA supply of such fuels. Actually, it was benefitted by the “political unrest” that has been

\textsuperscript{28} To see an example, access: http://www.atimes.com/atimes/Middle_East/MID-01-270613.html.

\textsuperscript{29} Iran has constructed highways connecting Afghanistan with the Chahbahar port. Besides that, India is working on a new net of infrastructure connecting the main iron production in Afghanistan (where it has a consortium exploring iron) to the Chabahar port (The Hindu 2009) (Keck 2013).

\textsuperscript{30} To have more information about India’s and China’s growing relations with the MENA region, access: https://openknowledge.worldbank.org/bitstream/handle/10986/2626/484560PUB0chin101Official0Use0Only1.pdf?sequence=1.
occurring in the region since 2011 (Ernst & Young 2012, 42). Malaysia relations with Middle East countries are based on “trade and investment flows […] as well as cooperation in education, tourism and Islamic finance and banking” (Ministry of Foreing Affairs of Malaysia 2013). It is relevant to stress that Malaysia is an important member of the Organization of Islamic Cooperation; in this sense, it has no political ties with Israel and has good relations with other Islamic countries (Yegar 2006). Malaysia has recently agreed with Egypt to engage in talks about a Free Trade Zone between them (All Africa 2012).

Japan and South Korea are very dependent on energy resources from the MENA region and are, therefore, important infrastructure investors. Improvements in infrastructure can be crucial to stabilize a country or a region, due to better welfare conditions for the population, as well as promoting economic growth. Therefore, Japan and Korea invest in MENA infrastructure seeking to promote stability, which is essential to ensure their access to the oil from the region. In Japan’s case, 90% of its oil imports are from Arab countries (Lanna 2012) and the country has increasingly engaged in the region. Investments in infrastructure are concentrated, mostly related to oil, particularly in Saudi Arabia and Kuwait (Feddersen 2013), also in solar and thermal energy in Tunisia and Morocco (Japan 2011) and it has an important role in the reconstruction of Iraq and Afghanistan (Lanna 2012). “Japan’s endeavors in the MENA area have been often described in terms of ‘resource diplomacy’, that is the diplomacy aimed at securing access to raw materials and energy sources” (Lanna 2012, 112) and, for this purpose, it seeks to increase its ties through bilateral agreements with oil producing countries, reducing the risk of regional instability and ensuring the sea routes between MENA and Japan. Likewise, South Korea maintains this concern with the instability of the region, but unlike Japan, the country has sought to diversify partnerships for oil imports, in order to reduce its dependence on MENA—mainly on Kuwait and Saudi Arabia, whose majority of oil exports to Asia passes through the Strait of Hormuz, that can be closed by Iran in case of regional conflict (Jaeger 2013) —, by increasing their investments in countries such as Russia and Australia (Ronconi 2013).

Nigeria is Africa’s most populous country and the most important country in the Western Africa, playing a kind of leadership role, once it dominates the region economically and politically (Davies 2010). It can support the infrastructure development in North Africa, as long as it does not interfere—or compete with—in its interests in western Africa and in its exports. It is a notable exporter of oil and gas, being an OPEC member; its main importers are the United States and India; European countries31 import 35.1% of its exports of mineral fuels (crude oil and petroleum gases, mostly) (International Trade Center 2013). Due to its own potential to export and its dependency on oil and gas activities, Nigeria prefers

31 The Europeans that most import mineral fuels from Nigeria are Spain, United Kingdom, Germany, Netherlands, France and Italy, followed by others.
projects that either integrate the region (like highways and telecommunication) or ease its own exports instead of those that can impose more competition to its own trade. There is a project of a gas pipeline, to be conducted in 2015, named as Trans-Sahara Gas Pipeline, connecting Nigeria to Algeria via Niger, aimed to reach the European market\textsuperscript{32} (Fabi 2009). Nigeria has already received a World Bank funding for the construction of the Western-Africa gas pipeline (Hoscheidt, Paes and Filho 2013, 146).

Egypt is going through a situation of great instability. After the Arab uprisings, the political situation in Egypt is still instable and likely to remain so, what affects directly its economic relations. Meanwhile, “continued political instability has undermined inflows from tourism and foreign direct investment (FDI). Economic growth is expected to remain depressed” (African Development Bank Group 2013a). Along with presidential deposition in June, however, the perspectives to the short term are not good. The IMF has proposed to Egypt a loan of US$ 4.8 billion, which would come with a set of austerity conditions. Internally, many do not agree with such conditions, delaying the agreement with IMF. Libya and Qatar have already loaned some funding to Egypt, approximately US$ 5 billion (Hanly 2013). With the President Morsi removal in July 2013, the IMF loan is even more distant (Talley 2013). World Bank investments could be welcomed in the region, but agreements about Egypt internal would probably divert the subject. It is worth to quote infrastructure developments summarized by a World Bank report:

“[i]n the past half a century, Egypt has experienced remarkable progress in the provision of infrastructure in all areas, including transportation, telecommunication, power generation, and water and sanitation. […] In the past 15 years, however, a worrisome trend has emerged: Infrastructure investment has suffered a substantial decline, which may be at odds with the country’s goals of raising economic growth. Improving infrastructure in Egypt would require a combination of larger infrastructure expenditures and more efficient investment” (Loayza and Odawara 2010, p. 2).

It is also important to address the Egyptian participation in the League of Arab States (BBC News 2011a). Being one of the group’s key players, it can be said that Egypt in engaged in the Arab countries economic integration. Although the intra-trade in the Arab region is low, the perspective of integration can result through augmentation of Arab countries commerce and other ties\textsuperscript{33} (Hoekman and Sekkat 2012). The members of the League, though, have great divergences among each other, thus hampering integration. “However, the Arab League has been a

\textsuperscript{32} In these sense, “The European Union sees the Trans-Saharan project as a potential opportunity to diversify its energy sources” (Fabi 2009).

\textsuperscript{33} Some authors say that this is a reason why integration would not bring relevant benefits. However, as Hoekman and Sekkat (2010) say: “Arab countries exhibit a wide range of GDP per capita (less than US$ 1,000 in Yemen and over US$ 25,000 in the UAE). These differences should generate incentives to engage in intra-industry trade driven by product differentiation in order to respond to differences in incomes and preferences. A precondition for such trade to expand is reducing standard trade barriers, such as non-tariff barriers (NTBs) and real trade costs” (Hoekman and Sekkat 2012).
little more effective at lower levels, such as shaping school curricula, preserving manuscripts and translating modern technical terminology. It has helped to create a regional telecommunications union.” (BBC News 2011b).

In Sudan, it is important to reckon the very recent split (after a referendum in 2011) of the territory, giving existence to South Sudan. Then, if projects of pipelines evolving the reserves of oil that are in their boundaries emerge, it is preferable to maintain in its own territory. It is important to note that

“Sudan has heavily invested in infrastructure in recent years […]. Looking ahead, Sudan’s most pressing infrastructure challenges lie in the water and transport sectors. In the water sector, the country needs to dramatically improve access to safe sources of water and sanitation while improving utility efficiency. In the transport sector the country needs to vastly expand rural and international connectivity and improve quality across the network” (Ranganathan and Briceño-Garmendia 2011, p. 2).

There is still a gap in funding for Sudan to achieve its infrastructure needs; this gap could be filled by the domestic private sector and investments from abroad (Ranganathan and Briceño-Garmendia 2011). Sudan’s economic growth in the medium term future will be extremely dependent of natural resources, specially oil and gold (African Development Bank Group 2013b).

Djibouti has an important geographical location for the MENA region, being one of the coasts of the Bab-el-Mandeb Strait. This strait connects the Indian Ocean and Europe, being a major sea route for oil and other goods transportation. Djibouti “wants to become a hub for commercial, logistical and financial services for the Gulf of Aden countries”. Internal investment and FDI—mostly coming from Gulf States, especially Dubai, and focused in capital intensive sectors, including ports infrastructure and roads—have been increasing and sustaining economic growth; Djibouti government has launched investments programmes and, thanks to funding, aims to enhance its port facilities. Djibouti has some energy, mineral and agricultural resources, but they have not been deeply developed (African Development Bank Group 2013c). To Djibouti, the development of the MENA region is really advantageous, once more would require its ports infrastructure. Furthermore, Djibouti is involved in an electric power interconnection agreement and the construction of a railway with Ethiopia; both projects are expected to boost the economic cooperation and the integration between the two countries (Jemal 2013) (Kassa 2013).

Iran stands out for its abundance of energy resources. It is the 4th country in the world in number of reserves, production and exports of oil. It has the second largest proven reserves of natural gas and is the 5th largest producer of it. Also, Iran is the largest electricity producer of the region. Moreover, it has the second largest railway network and the largest number of airports in the MENA region

34 Various outstanding secession issues—especially the question of shared oil revenues and the exact order demarcation—have continued to create tensions between the two successor states” (BBC News 2013).
Iran constitutes an important strategic territory of passage for global trade and, hence, its ports and railways have great importance in the region. In order to take advantage of these conditions, India, Russia and China stand out as investors in Iranian infrastructure (Dini 2013, Lewis 2011). However, despite the abundance of natural resources, energy, transport and human capital, Iran is still not considered as an attractive country to receive investments, mainly due to the international sanctions and its political environment (Alavinasab 2013). Nevertheless, Iran has an important role in joint infrastructure projects in the region. In this regard, there are several pipeline projects with its neighbors, such as Turkey, Iraq and Pakistan. Also, Iran takes part of the investments in railways in the region, notably with Turkmenistan and Afghanistan. Regarding the latter, Iran is one of the major investors in its infrastructural reconstruction, since the Iranian government has a strong interest in ensuring the stability of Afghanistan and reducing the U.S. presence. Along with Turkey and Pakistan, through the Economic Cooperation Organization (ECO), Iran also operates significantly in telecommunications and information technology by building a regional network of optical fiber (Jaeger 2013).

Similarly to Iran, Saudi Arabia also has great importance in the energy field. The country has the largest reserves of oil in the world and is the largest exporter and second-largest producer of it in the world. As for natural gas, it ranks 5th in reserves and 9th in production (CIA Factbook 2012). However, unlike Iran, Saudi Arabia stands out in attracting investments. Between 2008 and 2012, 45% of private infrastructure investments in the MENA region have been to Saudi Arabia, which occur mainly in oil and gas infrastructure, but also in the transport and communications sectors (Marghub 2012; Chauvin 2013). Between 2005 and 2010, 84% of private infrastructure investments in the MENA region went to the Gulf Cooperation Council (GCC) countries, which represent 50% of the GDP and 10% of the population of this region (Marghub 2011). Saudi Arabia is considered as the world’s 11th most attractive country for infrastructure investments (EC Harris 2012) and the 22th on the ease of doing business, according to the World Bank (Chauvin 2013). These indicators are the result of several reforms made by Saudi Arabia in the last decade to support development and macroeconomic stability, which resulted in a rapid growth of investments in the country (Divarci 2004). “The Arab Spring has forced Governments to speed up reforms that further encourage transparency in the government and private sectors in order to shore up investors’ confidence and create opportunities for new investments” (MIST 2013, 1). From this perspective, the Saudi Government has promoted these reforms in order to avoid the Arab Spring through economic improvements. The country also began to offer significant financial and tax incentives for investors, such as “cut the highest corporate income tax on foreign investment from 45% to 30% and subsidizing the expenses of relocating existing corporate units, like preferential rates on energy consumption” (Chauvin 2013, 11). Saudi Arabia also stands as an
investor in regional infrastructure, mainly in the GCC countries. However, due to the current context of international financial crisis, investments in the country are suffering decline and many mega projects were canceled or temporarily frozen, mainly in the petrochemical industry (Chauvin 2013).

On infrastructure investment issues, Israel and Turkey are very similar. The two countries have been significantly increasing the economic and political relations between them, mainly because both share the same concerns about the stability of the region (Brandalise 2013). Israel and Turkey have made an immense effort on attracting foreign direct investment (FDI) and, respectively, tripled and doubled their inward FDI between 2001 and 2003 (Favara 2006). In the case of Israel, this attractiveness is explained because of its skilled workforce, as well as its large investment in Research and Development (R&D). Compared with other countries in the region, Israel has a well-developed infrastructure and seeks investments in agro-technology, irrigation and solar power, due to the lack of conventional energy sources and exceptional weather conditions. However, the long-term situation of foreign oil dependence can change in Israel, since the discovery of huge oil shale deposits in 2011, which could cover 15% of the territory, putting the country in possession of one of the largest oil reserves of the world (Brandalise 2013). Turkey is considered to be the 23rd best country in the world for infrastructure investments, due to its good economic environment, established infrastructure, legal framework, government transparency and high household consumption (EC Harris 2012). The country also has the largest network of railways and highways of the MENA region (CIA Factbook 2012). The Turkish infrastructure is of international importance, due to the fact that the country is located at a strategic geographical location: it is a bridge between Europe and Asia, which is very relevant to the New Silk Road projects. Like Israel, Turkey is also dependent on foreign energy resources, which mainly come from Iran and Russia. Therefore, the country seeks to diversify its source of supply, investing in alternative routes of pipelines and railways, especially in Azerbaijan and Georgia (Mateus 2013).

Turkmenistan stands out in the natural gas sector, taking the 4th and 11th position in the world rank of reserves and exports, respectively (CIA Factbook 2012). Such conditions lead to a possible competition with MENA countries in resource exports to Europe and in inflow of investments for pipelines construction. Moreover, the country also maintains important economic cooperation initiatives and joint projects, especially with Iran and Afghanistan, through the intermediation of Russian and Indian investments in the regional infrastructure (Dini 2013, Lewis 2011), as well as in the Caspian Sea (Jaeger 2013). It should be noted that, along with the other countries of Central Asia, Turkmenistan is part of ECO, which was founded by Iran, Pakistan and Turkey and has an important role in regional infrastructure. Also, the country is included in the TAPI project (a gas pipeline between Turkmenistan, Afghanistan, Pakistan and India), which is mainly supported by the U.S. (Brandalise 2013b).
Like the other BRICS countries, investments made by Russia in the world have grown in the last decade. Russian FDI annual outflows have increased from US$3.2 billion in 2000 to US$12.8 billion in 2005 and further to US$51.7 billion in 2010, representing, respectively, 1%, 1.5% and 4% of global FDI outflow (Utter 2011). Despite having its investments very concentrated in Europe, Russia is one of the major investors in the MENA region, mainly in Turkey, Libya, Iraq, UAE and Iran (Calich 2013). Russia is a great player in the energy sector, due to the fact of being among the leading producers and exporters of oil and gas in the world (CIA Factbook 2012). Russian investments in the MENA region are concentrated in the energy and infrastructure sectors, in projects that help its economy, foreign trade and international projection.

Brazil stands out as an emerging power that attracts and makes much investment worldwide (Chauvin 2013). Brazilian annual FDI outflows have increased from US$2.2 billion in 2000 to US$2.5 billion in 2005, and further to US$11.5 billion in 2010 (Utter 2011). “The recent growth in the internationalization of Brazilian firms has been led by FDI in natural resources sector, primarily in commodity-based companies operating in metals, mining, oil, gas, and steel” (Utter 2011, 17). Brazilian investments accompany economic growth and the appreciation of the country’s currency in the beginning of the decade. In the MENA region, Brazilian investments are relatively poor, since they are still quite concentrated in Europe, USA and Latin America. On the other hand, it is expected that the country will increase investments in the region, due to its economic policy of diversifying partnerships since the last decade (Campanario 2012).

Bolivia and Venezuela are characterized by a similar foreign policy regarding the MENA region, marked by a strong ideological profile and oriented in building a new global geopolitics (Urrutia 2008). Both are part of the Bolivarian Alliance for the Americas (ALBA), which keeps important cooperation ties with Iran (observer member since 2007) and Syria (allied member since 2010), as by expressing rejection to the sanctions imposed by the U.S. and European Union (Cardozo 2012). Bolivia and Venezuela work in the MENA region taking into account mainly the shared political values, and also counting on Russian support (Urrutia 2008). Bolivia is the poorest country in South America and does not have a significant role as a global investor. On the other hand, natural gas production is important to the country’s economy, putting it as the 10th world’s largest exporter of this resource (CIA Factbook 2012). Therefore, in relation to the MENA region (notably with Iran), Bolivia is receiving much more investment than investing in infrastructure (Emol 2007; PressTV 2013). In Venezuelan politics of “Socialism of the XXI Century”, the energy variable plays a key role in the creation of new centers of power, in order to weaken the “hegemony of North-American imperialism” (Urrutia 2008). The country seeks to disseminate its policy of “Full Oil Sovereignty” to other OPEC members, believing that the U.S. and EU are responsible for the instability of the MENA region, making it difficult for OPEC countries to receive
Board of Executive Directors of the World Bank

infrastructure investments (PDVSA 2005; 2007). In 2009, Venezuela and Iran signed several agreements, focusing on the issues of energy and mining. In the same year, it was created a joint bank to finance development projects in both countries. Notably, the Oil Company of Venezuela (PDVSA) invests in the Iranian portion South Pars gas natural reserves (CONAPRI 2009).

In recent years, Canada has been striving to increase its international presence. Traditionally, the country focuses its investments in developed countries (Acharya 2010). However, in general, its outward FDI has diminished in recent years, mainly due to the large decline of investments in Europe. Canada has been seeking to diversify its partnerships, increasing investment in developing countries, especially in Asia. Canadian investments in the MENA region are still poor, concentrating mainly in Jordan and Kuwait (Canada 2011). Due to cooperation ties through OECD, the country is also investing in Israel and Turkey. Canada stands out in the energy sector of oil and gas, as one of the leading producers and exporters (CIA Factbook 2012) and as the main exporter of these resources to the U.S., followed by Saudi Arabia.

Despite its great influence and role in MENA, the United States of America invests relatively poor in the region. In 2011, the total stock of USA outward FDI was US$4.2 trillion and only about US$56 billion, or 1%, was concentrated in Egypt, Qatar, Israel, Saudi Arabia, Algeria and UAE (Bolle and Nelson 2013). The country claims difficulties and low attractiveness to invest in the region, given the lack of transparency and rule of law, inefficient bureaucracy, corruption and cultural differences in negotiations. Other weaknesses include dependence on exports of oil and gas, lack of democratic institutions, weak environment for businesses, government intervention, undeveloped infrastructural basis, weak educational system and restrictions for women in employment (Bolle and Nelson 2013). Especially in some countries such as Egypt, the U.S. criticizes the corruption, the ill-defined regulatory framework, generally unresponsive commercial court system and multiplicity of regulatory agencies. As for Saudi Arabia, the country points its weak enforcement of arbitration disputes in private sector, foreign investors needs to obtain a local sponsor to obtain a business visa, and preference to local firms in government contracts. Iran and Syria constitute a special situation in the U.S. trade policy, due to sanctions imposed on both (Bolle and Nelson 2013). Therefore, U.S. investments in the MENA region are characterized by a dilemma due to the instability, uncertainties, lack of democracy and economic openness, and the opportunity to influence the political transitions in the countries through investments, which could promote economic growth, liberalization, governance and rule of law, promoting the commercial and political interests of the U.S. From this perspective, during 2011, the U.S. Government announced the creation of the MENA Trade and Investment Partnership Initiative (MENA-TIP). As for infrastructure investments in Tunisia, Morocco Saudi Arabia, Qatar, Kuwait and Egypt, it should be highlighted the sectors of energy, logistics, technology,
communications, oil and gas (Bolle and Nelson 2013). The U.S. also have a pivotal role in relation to the TAPI project (a gas pipeline between Turkmenistan, Afghanistan, Pakistan and India), especially because it is the main alternative to the IPI pipeline (Iran-Pakistan-India). This support meets the American policy of isolating Iran and its strategy to delegate the task to other countries in stabilizing and rebuilding Afghanistan (Brandalise 2013b; Dini 2013).

5. Questions to ponder

1. In which way can the World Bank diminish MENA region’s high level of socioeconomic inequality and its effects on infrastructure gaps, energy production and sustainability?

2. What should the World Bank do to help improve the production of non-fossil sources of energy in the MENA region? Why does North Africa own one of the world’s largest potential of solar power generation and has actually such a little installed capacity?

3. What is the main type of transportation the World Bank should promote? In this regard, how can the World Bank enhance the region’s internal and external connectivity?

4. Considering many sorts of infrastructure projects, like energy, transportation and telecommunications, what should be World Bank’s priorities in terms of infrastructure for the MENA region?

5. What kinds of partnerships should the World Bank establish with international organizations and/or enterprises in order to improve the region’s infrastructure?

References


IDA. *A study of international transport corridors in OIC member countries.* 2011.


IRU. *IDB-AULT-IRU joint project on the facilitation of road transport in the pan-arab region.* 2013.
Available at: http://www.irma.org/en_idb_ault_iru_joint_project. Last access on July 1st, 2013.
Middle East Association. About the Middle East Association. 2013b. Available at: http://the-mea.
UFRGSMUN | UFRGS Model United Nations Journal

co.uk/about-middle-east-association. Last access on June 22, 2013.


Pigato, Miria. Strengthening China’s and India’s trade and investments ties with the Middle East and North Africa. The World Bank. 2009. Available at: https://openknowledge.worldbank.org/bitstream/handle/10986/2626/484560PUB0chin101Official0Use0Only1.pdf?sequence=1. Last access on July 11, 2013.

access on July 6, 2013.


Reuters. *GERMANY’S DEG to invest up to $188 mln in MENA firms next year.* June 20, 2013. Available at: http://www.reuters.com/article/2013/06/20/deg-mena-idUSL5N0EW0O420130620. Last access on July 05, 2013.


On 07 07, 2013.

**Abstract**

Infrastructure comprises three types of projects: transport, energy and telecom infrastructure. Improvements in those services are crucial for economic growth, as they reduce production costs and stimulate rural, industrial and trade activities. Moreover, national output, consumption and exports may all soar. It also enhances the competitiveness of a country in the global market. Working in infrastructure itself is also important to foster job creation, especially during periods of high unemployment rates as nowadays. Besides improving economic performance, infrastructure may help diminish income disparities and gender inequality issues, as well as promote sustainable development with a “green financing” approach. Nevertheless, private sector has not managed to properly deal with this question by its own, and public sector stood out as an important infrastructure promoter, either by financing projects with national development banks or by granting public guarantees to private investment funds. Infrastructure in the Middle East and North Africa has recently become a special focus of attention for the World Bank, according to which there is a lack of infrastructure in those regions that will undermine their growth if not urgently addressed. Due to the necessity of high investments, the World Bank, alongside with other partners, has launched the Arab Financing Facility for Infrastructure in 2010 to address the issue.