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"Alternative Methods for Decreasing Infrastructure Deficiencies in Iraq"

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Abstract

Economic Development is closely linked to efficient social and physical infrastructure systems. This paper investigates the impact of this tandem interrelationship with an emphasis on the case study of Iraq. A review of nature of the Iraqi economy and existing conditions of selected infrastructure sectors indicates clear deficiencies. These deficiencies constitute an obstacle to sustainable economic development needed for a steady population growth. Overcoming deficits to infrastructure service levels require the implementation of a Public-Private partnership to catch up with needs and demand. One form of this partnership is the BOT contracts which can accelerate the delivery of services. Existing economic and business environment are not ideal for the local and foreign investors to engage in such contracts, but impediments are diagnosed by concerned governmental entities which may reverse the infrastructure reality in Iraq.

ترتبط التنمية الاقتصادية ارتباطا وثيقا بالنظم الفعالة للبنية التحتية الاجتماعية والمادية. تبحث هذه الدراسة في تأثير هذا الترابط جنبا إلى جنب مع التركيز على دراسة حالة العراق. استعراض طبيعة الاقتصاد العراقي والظروف القائمة في قطاعات البنية التحتية المختارة يشير الى جوانب القصور الواضحة. يشكل هذا النقص عائقا أمام التنمية الاقتصادية المستدامة اللازمة لنمو السكان المطرد. ان التغلب على العجز الكبير في مستويات خدمة البنية التحتية يتطلب تنفيذ شراكة بين القطاعين العام والخاص للحاق بركب الاحتياجات والطلب.لذا فأن تلبية الاحتياجات الواسعة لمشاريع البنى التحتية يتطب اتباع اساليب بديلة بعيدا عن الاساليب التقليدية في تنفيذ هذه المشاريع على المستويات كافة ابتداءا من التمويل وانتهاءا بالتنفيذ والادارة.

احد هذه الاساليب البديلة لهذه الشراكة هو عقود BOT التي يمكن ان تسرع تقديم الخدمات للسكان. البيئة الاقتصادية والتجارية القائمة في العراق ليست مثالية للمستثمرين المحليين والأجانب على الانخراط في مثل هذه العقود، ولكن تم تشخيص العوائق لاتباع هذا الاسلوب من قبل المؤسسات الحكومية المعنية مما يشكل خطوة هامة في تذليل الصعوبات امام رفع العقبات بالنظر للميزات الواسعة التي سوف تساهم في التقليل من العجز الكبير الذي تعاني منه كافة قطاعات البنى التحتية وتماشيا مع خطة التنمية الوطنية المعلنة

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Introduction

Stating the fact that adequate infrastructure leads to economic development is not a new concept. Physical infrastructure is always regarded as a prerequisite to economic development. No country embarking on an ambitious economic development plan is expected to reach the goals of such a plan without the proper planning, financing and implementation of integrated infrastructure network.

To start with, it is imperative to define the two terms that are fundamental to this paper, namely economic development and infrastructure in order to comprehend interrelations between them. **Economic development generally** refers to "the sustained, concerted actions of policymakers and communities that promote the standard of living and economic health of a specific area. Economic development can also be referred to as the quantitative and qualitative changes in the economy. Such actions can involve multiple areas including development of human capital, critical infrastructure, regional competitiveness, environmental sustainability, social inclusion, health, safety, literacy, and other initiatives".

On the other hand, and almost by definition, **Infrastructure** is "the basis for development. For an economy, it is the foundation on which the factors of production interact in order to produce output. This has long been recognized by development analysts, and infrastructure often termed "social overhead capital" is considered to include: Those services without which primary, secondary, and tertiary production activities cannot function. In its wider sense it include all public services from law and order through education and public health to transportation, communication, power and water supply, as well as agricultural overhead capital as irrigation and drainage systems". To broaden this definition, infrastructure can include human infrastructure or those services designed to raise labor productivity such as health, education, and nutrition.

To cite a number of examples to illustrate this tandem relationship , two studies of 100 countries have found that 10% increase of secondary school enrolment has contributed to an increase of GDP per capita of 0.2 (Barro, 1991)and 0.7 (Baumol, 1989) respectively. Another example can be seen in table (1) through a cross country study of 58 countries, where it clearly shows that improvements in certain agriculture related infrastructure services are accompanied by an aggregate increase in economic output.

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Table (1) Effects of Infrastructure on Agriculture

Due to 1% increase in	Increase of aggregate growth output %
irrigation	1.26
Paved roads	0.26
Rural roads density	0.12
Adult literacy rate	0.54

Source: Binswager H 1991

Other scholars have pointed to additional benefits to improving infrastructure performance. Lederman, Maloney, and Servén (2005) have found that "the efficient provision of infrastructure is crucial for the success of trade-liberalization strategies aimed at optimal resource allocation and export growth. Access to infrastructure services, on the other hand, has been found to play a significant role in helping reduce income inequality" (Estache, Foster, and Wodon 2002; Calderón and Chong 2004; Calderón and Servén 2004a; Galiani and others 2005)

Assessing the Dual Impact

There are two sets of evidence to assess the impact of infrastructure on the development process. First is the aggregate country, regional and sectoral level has been used to the impact of infrastructure on economic indicators such as levels and growth of output. Micro level evidence is used to explain the influence of infrastructure on household and individual welfare levels (Human infrastructure) and profitability of firms (physical infrastructure).(Jimenez,1995, p 2776)

Recent studies at both the macro and micro level have reinforced the point that investments in human and physical infrastructure are critical elements for economic growth and for reducing poverty, although there have been fewer consensuses on the magnitude of that effect. While the literature continues to accept the key role of government in investment policy, there has been more of a debate about the nature of that role to improve efficiency and equity.(Jimenez,1995, p 2775)

Status of Iraqi Economy

The infrastructure system in Iraq has enjoyed a period of renaissance during the seventies and early eighties of the last century. Health and education facilities were regarded as some

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of the best in the Middle East region. However, since the mid eighties, public infrastructure spending and investments have declined sharply due to military conflicts, economic sanctions, and political instability. For over thirty years, the Iraqi economy has experienced neglect and degradation and as a result, nearly all infrastructure sectors including social services and the environment have suffered tremendously. In recent years, the Iraqi economy has experienced sharp changes compared to other countries in the region as can be concluded from table (2) and figure (1). Gross domestic product has risen from 1.5 percent in 2007, to a projected 12.60 percent in 2012, which puts Iraq ahead of other countries in the region and perhaps the world.

Table (2) Average Real GDP Growth In Selected Middle Eastern Countries

COUNTRY	2007	2008	2009	2010	2011 Projections	2012 Projections
QATAR	18.00	17.7	12.00	16.6	18.70	6.00
IRAQ	1.50	9.50	4.20	.80	9.60	12.60
SAUDI ARABIA	2.00	4.20	0.10	4.10	6.50	3.60
UAE	6.50	5.30	-3.20	3.20	3.30	3.80
EGYPT	7.10	7.20	4.70	5.10	1.20	1.80
ARAB AVERAGE	6.70	4.50	2.60	4.30	3.10	3.20
GLOBAL	5.44	2.79	-0.66	5.11	3.96	4.00
DEVELOPED WORLD	2.76	0.09	-3.72	3.07	1.61	1.92
DEVELOPING WORLD	8.87	6.03	2.80	7.33	6.40	6.08

Source: IMF data

Crude oil extraction and exportation dominates the Iraqi economy. The oil sector grabs a 44 percent share in the gross domestic product, and accounts to 93 percent of all export revenues. This evident imbalance of the Iraqi economy has resulted in increased risk of exposure to global economic fluctuations.

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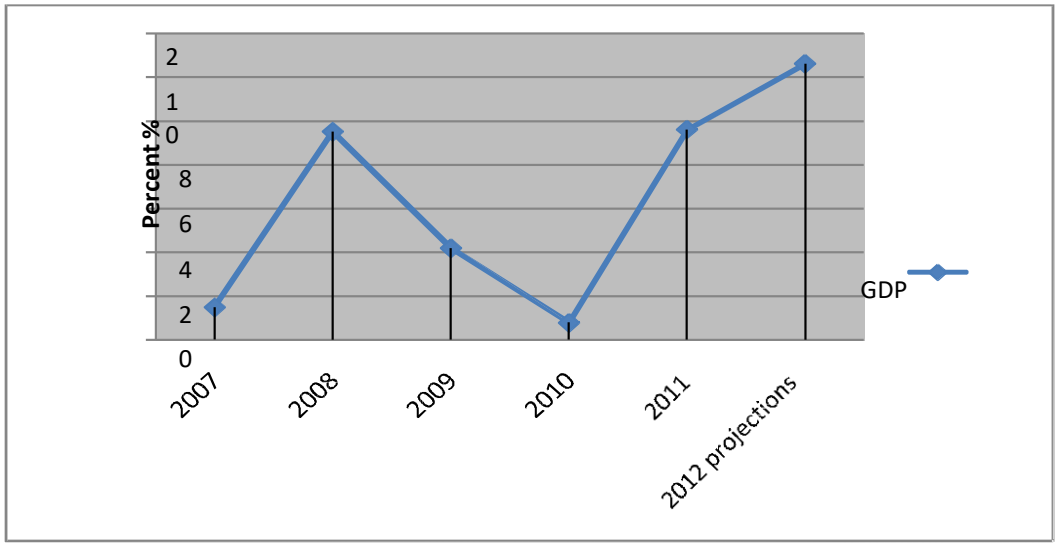

Figure (1) Iraq GDP Real Growth 2007-2012

The remaining economic sectors have contributed in a somehow limited role in invigorating the economic cycle. This overall profile illustrates a typical condition of an economy dependant to a great extent on imports to satisfy the demands of a growing of public sectors as result of an increase in the public budget. Commodity activities accounted for 28.6 percent of the GDP, while 38 percent is the share of distributional activities, and 33.4 % is the service sector share between 2004 and 2008.

The extreme reliance on the oil sector and the lack of a viable domestic industrial sector has severely tilted the balance of trade between Iraq and the rest of the world as a result high level of importation of goods and services.

A direct result of this structural deficiency is the continuous deficit in public investment funds to match the growing demand for various social and physical infrastructure services. Current estimates of funds that will be spent and needed to upgrade the Iraqi economy are enormous. Iraqi investment commission estimated Iraqi infrastructure needs to be around $700 billion over the coming 10 years. Table (3) estimates this deficit to around $21 billion over the next four years.

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Table (3) Total Iraqi Economy Revenues 2010-2014

Year	$Price/ barrel	Daily	Oil Revenues $ Billion	Non oil Revenues $ Billion	Total Revenues $ Billion	Investment allocation	Available Investment allocation $billion	Investment Deficit $ Billion	Needed investment $ Billion
2011	76.5	2.30	63,342	4,000	67,342	0.40	26,937	3,063	30,000
2012	78.5	2.70	76,302	4,400	80,702	0.42	33,895	6,105	40,000
2013	80.5	3.30	95,634	4,840	100,474	0.44	44,209	5,791	50,000
2014	84.5	4.00	121,680	5,324	127,004	0.48	60,962	6,038	67,000
							166,002	20,998	187,000

Soursce: (Albasri, 2011,p 6)

Despite being a middle-income country, "Iraq faces challenges commonly found in countries at Lower income levels. These include: (i) excessive dependence on one primary commodity, namely, crude oil; (ii) significant infrastructure reconstruction and rehabilitation needs; and (iii) declining absolute standards of living. This picture becomes more problematic when looking at the demographic trends". The population in Iraq has risen sharply and in a manner independent of economic conditions. According to the Iraqi Central Statistics Organization (CSO) the general population has increased from 8 million in 1965 to around 12 million inhabitants in 1977. The increase continued to reach 16 million during 1987, climbing to 22 million in 1997, and reaching 26 million in 2003. During 2008 population estimates were around 30.5, with an expected population forecast of 35 million by 2014. The implications of the rapid population growth rate are extremely significant for all infrastructure sectors especially for urban areas where most of the population is concentrated. (National Developmet, 2010, p 22)

Infrastructure Conditions

Despite significant increases in the public budget , most Iraqis in urban and rural suffer from shortages in basic services namely electricity and water services. Public services operate under unsustainable financial resources due to draining public subsidies, and inefficient user fee collection and billing. The operation and maintenance activates have suffered immensely

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as a result of lack of adequate revenues and undertrained manpower. Lack of maintenance as a result of years of conflict has left almost the bulk of infrastructure in poor condition.

The public health system made strides during the previous period, and enjoyed notable success with regard to infant immunization and primary care. Nonetheless this sector is severely lacking in modern facilities to cater for the growing population. The private health care sector has relatively filled the deficit, but the financial burden is felt by lower income groups. The lack of capacity and trained manpower, the heath system is plagued by unpredictability of electricity and water supply, as well as general insecurities and unsafe working environment for health personnel.

The educational system has also enjoyed a period of increased public spending which reflected positively on enrollment rates during the eighties. Estimates at the time indicated an almost universal primary school enrollment. Since then, the system has experienced steady decline due to a number of factors mainly (i) the politicization of the education system, which influenced everything from curriculum, to teaching staff, to admissions policies; and (ii) public investments were deferred as a result of military expenditure and other priorities of the regime. "Of the approximately 13,000 primary and secondary schools, some 80 percent require significant reconstruction; and 700 of these need to be completely rebuilt. In 1989, the education budget was US$2.5 billion (some 6 percent of GDP) with a per student expenditure of US$620. Over the period 1993-2002, expenditure per student dropped to only US$47". (Joint Assessment, 2003, p viii)

> Higher education currently suffers from both a decade of under-investment and great damage from the latest conflict and the subsequent looting and arson. About 300,000 students are enrolled in higher education institutions. Faculty numbered around 14,500 in 2001.

UN imposed economic blockade, which restricted hugely access to new fields of knowledge and technology, also impacted negativelyu the higher education system. The remaining causes for the noticeable decline in the education system "can be attributed to the high level of political interference in the university curriculum, instruction, and management that drove experienced staff out in the 1980s and 1990s. To date, higher education has been funded almost exclusively by the state, with very low user-fees only recently being introduced in the center and south of Iraq. There is a strong demand for decentralization and increasing autonomy, meaning that there will be a need for extensive management training for both administrative and teaching staff". (Joint Assessment, 2003, p viii)

The infrastructure protecting public health is beyond accepted norms and standards. There is a huge problem with respect to sanitation. The sewerage collection and treatment system serves mainly the city of Baghdad, where it reaches approximately 80 percent of the population. The capital city of Baghdad is covered 75 percent by sanitation projects and no more than 3 percent in other urban areas. There is a complete lack of these services in rural areas. "Only 9 percent of the urban population outside of Baghdad is served by sewage systems while the rural areas and the north of Iraq does not have piped sewerage systems. The sanitation system is becoming a

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serious environmental and health concern. Iraq suffers also from a decline in the rate of quantitative and qualitative facilities for drinking water; coverage is no more than 90 percent in urban areas and 65 percent in rural areas". (Joint Assessment, 2003, p viii)

One of the basic sectors essential for the economic welfare of the population is the transportation sector for the efficient movement of people and goods. Iraq spans an area of around 432,000 sq. m, and a population reaching 33 million There is a great need to modernize the transportation network to cater for the growing demands in all modes of movement. Such modernization will also serve as an opportunity to reduce detrimental environmental and health impacts. An imperative task is to revamp transportation facilities and infrastructure to higher performance levels. This high priority function is necessary to enable efficient transportation of strategic goods such as medical supplies, grain electrical and water and sanitation spare parts and other vital components of reconstruction and economic development.

Vision of National Development Plan (NDP) 2010-2014

The ministry of planning in Iraq is in charge of formulating a five year future development plan to allocate resources and guide national growth. The plan is built on a comprehensive and sustainable model for development to achieve prosperity and higher standards of living assumption. In an attempt to use its economic resources, the government of Iraq envision this mid range plan will witness a greater role of the private sector to play a significant role in creating jobs and assume a leadership role in the economic drive for prosperity. The government will exercise an organizational and enabling role to address and correct market failures , and act as a moderator to dampen the tendencies to develop significant gaps among groups of varying income level.

The plan is based on six major economic and social sectors which form the basis of national development:

• "Conversion industries. Iraq possesses capabilities, in terms of natural and human resources, that ensure it a comparative advantage in many industrial activities such as petrochemical, chemical, fertilizer, cement, and food industries. They also constitute a crucial starting point for diversifying the national economy, invigorating participation by the private sector, and ensuring job opportunities.

• Agriculture. It guarantees food security, reduces food imports, and creates a vast number of job opportunities that can reduce unemployment in rural areas and alleviate poverty

• Crude oil extraction. It provides crucial sustainable financial resources in the short to medium range.

• Electricity. It is one of the central activities relied upon by all production and life activities and areas

• Transportation. An important sector that supports the flow of economic activity and increases its efficiency. It also has a profound impact on the population's quality of life.

• Agriculture. It guarantees food security, reduces food imports, and creates a vast number of job opportunities that can reduce unemployment in rural areas and alleviate poverty

• Social development services. A vital sector that centers on building up the citizenry and

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providing a social umbrella. It includes the basic infrastructure supporting services (water and sanitation, education, health, culture, youth and sports, as well as enablement in the area of housing), other services related to the MDGs, and achievement of strategic poverty alleviation objectives". (National Development,2010, p 25)

Putting this plan into action requires substantial financial resources. The National budget is not capable of providing a 100 percent of such resources despite the increasing output of oil exportation. According to the NDP, "the approximate total amount of investment needed to achieve the plan's target growth rate of 9.38 percent annually is around US$186 billion. It is also predicted that development partners (the domestic and foreign private sector) will fund US $86 billion, which will be spent in the various fields specified by the plan, as well as other activities not set forth in the plan such as insurance, banks, and other personal services".

Alternative Infrastructure Provision Method

It is clear that required levels of investments cannot be met by the government alone. Major Infrastructure project have always been formidable to finance and operate. For example, at one time, the interest on the debt from the construction of the Suez Canal was larger than Egypt's national income. As a result, the Egyptian government was forced to sell the canal to the British. The public/private sector partnership in various infrastructure sectors has evolved to become an important option to overcome liquidity constraints faced by many countries around the world. Iraq is no exception to this trend.

Investment in infrastructure is needed not only for new ground up project, but rather incorporate the rehabilitation of existing rundown infrastructure. "Some of the proposed investments in the sector assessments are also critical to facilitate the import and distribution of strategic commodities and construction inputs necessary for the overall reconstruction effort. Infrastructure rehabilitation will play a key role not only in improving service quality and coverage across a range of subsectors but also in upgrading Iraq's competitiveness and security as it seeks to allure investment and engage development of the private sector".

Despite of the unattractive environment for the private sector to participate effectively in the much needed rebuilding and rehabilitation of existing infrastructure, it seems that private sector involvement is a strategic alternative to the meeting the needs of the economy and population. The telecommunication sector was perhaps the first experiment in Iraq since 2003.

Partnership contracts allows the public sector to offer the private sector concessions to build and operate facilities for pre determined timeframe and with its expiring all ownership

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rights shall return to the government. Such time frame allows the private sector entity to recover all costs and gain significant dividends. During the period of the partnership contract, the government pledge to buy the service at hand. The most implemented form of these contracts is the build-operate-transfer agreement known as "BOT". The terminology that has been used to describe BOT type projects varies widely. Some of the terms encountered are listed in Table (4). "In a **BOT Project** the project company or operator generally obtains its revenues through a fee charged to the utility/ government rather than tariffs charged to consumers. A number of projects are called concessions, such as toll road projects, which are new build and have a number of similarities to BOTs". (Macarthy, 1991, p 224)

Table (4) Terms Used to Describe BOT Projects

Acronym	Title
BOT	Build-Operate-Transfer
BOOT	Build-Own-Operate-Transfer
BOT	Build-Own-Transfer
DBOT	Design-Build-Operate-Transfer
DBOM	Design-Build-Operate-Maintain
BOO	Build-Own-Operate

Source: S C Macarthy and R L K Tiong, 2009

Concessions can be traced historically all the way back to the 16th century. Concessions were widely used in many European countries for water supply projects. "In France the first concession for water supply was granted to Perrier brothers in 1782.In the nineteenth century. In the period after the Second World War concessions were let in France and Spain for the construction and operation of some of the major motorways. A number of roads in Britain, the USA, France, and other countries were constructed as turnpike roads. A turnpike road was privately owned, and tolls were levied by the owner on all road users. As a result of varied results in the face of increasing construction and operation costs, and a downturn of traffic growth interest in BOT has declined somehow until the 1980". (Macarthy,1991,p 226)

Construction firms are transforming its operations to be more competitive in the pursuit for business, and as capital markets became more sophisticated, putting together the essential elements of a a BOT endeavor are becoming relatively manageable. "Since the early 1980s, there has been a remarkable interest in BOT schemes. The achievement of the Eurotunnel in raising equity of approximately $1500M for the channel tunnel project further inspired worldwide interest in BOT schemes. In addition, there is an increased willingness by many governments to privatize infrastructure projects, and there are increasing difficulties with obtaining sovereign loans from commercial banks for developing countries". (Qui, 2011,

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p127)

There are numerous examples of successful implementation of these partnership contracts around the world whether in the electricity production, railroads, ports, airports, or hospitals.

BOT schemes are often regarded as a new development, and the term itself is widely thought to have been conceived in 1984 by the then prime minister if Turkey. "The BOT order of business has been used for several centuries, and much of the infrastructure of a number of countries was put into place by the use of concessionary arrangements that were similar in contractual terms to BOT methods". (Qui, 2011, p 127)

To better understand the nature of BOT contracts, the following discussion provide an overview of major characteristics:

-In most cases, the contact involves a new discreet Greenfield development

-Securing financial resources through BOT is typical. The operator (investor) is therefore usually a special purpose vehicle. As it relates to new development, there is no revenue stream from the outset. Investors are therefore apprehensive to ensure that project assets are protected from transfer within the operating project company and that all risks associated with the project are assumed and passed on to the appropriate actor.

- The public sector grantor allocate to a private company the right to develop and operate a facility or public service for a specified period(Concession Period), in what would traditionally be a public sector project.

-capital investment of initial construction is provided by operator, owns the facility or public service and operates it commercially for the contractual period, after which the facility is transferred to the authority.

-The revenues are often obtained from a single customer such as a utility or government, who purchases project output from the project company. In the power sector, this will take the form of a Power Purchase Agreement. In a concession contract, the output is sold directly to end users.

-coordination, construction, and operation of the project is undertaken by the project company in accordance with the requirements of the concession agreement. Relevant authorities should be informed of the identity of the construction sub-contractor and the operator.

-The revenues generated from the operation phase are intended to cover operating costs, maintenance, repayment of debt principal (which represents a significant portion of development and construction costs), financing costs (including interest and fees), and a return for the shareholders of the special purpose company.

-The project company may include shareholders with experience in the management of the appropriate type of projects, such as working with diverse and multicultural partners, given the particular risks specific to these aspects of a BOT project. Shareholders can be entities with construction and/or operation experience.. The relevant public authority will be anxious to ensure that the key shareholders remain in the project company for a period of time as the project is likely to have been awarded to it on the basis of their expertise and financial

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stability.

- Power supplies as well as fuel are key ingredient in any BOT contract. The Project Company and financial institutions in a power project will be anxious to ensure it has a secure affordable source of fuel. Power is the main operating cost for water or wastewater treatment plant and so operators will need certainty as to cost and source of power. In power generation projects, It is preferable to enter into a bulk supply agreement for fuel, and the supplier may be the same entity as the power purchaser under the Power Purchase Agreement, namely the state power company.

-Considerable risk is carried by the project company. It is apprehensive to ensure that those risks that stay with the grantor are protected. It is an acceptable practice for a project company to require some form of guarantee from the government. This is necessary when dealing with power projects, where commitments from the government are incorporated into an Implementation Agreements.

- Lenders demand in certain cases on passing the project company risk to other project participants through contracts, such as a construction contract, an operation and maintenance contract. This demand by lenders stems from the desire to limit commercial risk and liability as much as possible. (World Bank, 2011, p 2)

Impediments to Private Sector Collaboration

Successful implementation of BOT contracts requires the presence of a vibrant private sector. Reliance on foreign partners to implement the BOT method to upgrade and modernize the

Infrastructure stock in Iraq is not always feasible due uncertain long range political outlook and structural deficiencies. This is taking place despite the vast wealth of the Iraqi economy stemming from huge reserves of natural resources. The World Bank in its annual ranking of ease of doing business in Iraq classifies the country as 164 place out of 183 countries throughout the world .Hence, it is vital that the local private sector in Iraq assume a larger role. However, the private sector in Iraq is confronted with a multiple chronic dilemmas which in effect limit its efficiency. Iraq national development plan outlines some of the challenges confronting the Iraqi economy in general and the private sector in particular as follows: (National Development, 2010, p 173)

1. Despite declared governmental intention to restructure public institutions, economic rehabilitation schemes remains lacking the necessary administrative ,economic, financial, legal, and measures. Current norms of practice hinder embracing the private sector as a full partner in the process of national development. There is a clear void in accounting, financial, and legal standards to facilitate the commencement of a shift from the public sector towards the private sector.

2. The public sector remains hesitant to enter into viable partnerships with the private sector. This is combined with an underdeveloped banking system which limits opportunities to facilitate credit for the private sector to enter into public investments.

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3. Complex bureaucratic procedures hinder attracting possible investors, pushed businessmen and investors out of the Iraqi arena. The Investment law enacted in 2008 was designed to remove complex government procedures through the creation of one window process, however, in practice , very little progress has been made.

4. The private sector remains lacking of clearly defined vision of its role in the national development. The role of the private sector in the overall restructured economy is limited to the trade sector, and is reluctant to enter into strategic partnerships with the public sector.

5. Public protection and support of private companies has contributed to downgrade the efficiency and competitive nature if these firms and has reflected negatively on the overall performance of the private sector, and has made the decision making process more arbitrary.

6. Legislations prerequisite to enable the private sector's role in economic activities are still lacking, thereby limiting the possibility of maximizing this role and degrading its competitiveness

7. The deterioration of the private sector's competitive position as a result of inadequate infrastructure and basic services provided to the sector.

8. Weak and marginal role of the Iraqi stock exchange, and far removed from international financial standards and principles, thereby limiting its role in generating capital to finance economic endeavors.

Conclusion

It is evident from the preceding discussion that Iraq is experiencing a serious problem with regard to infrastructure provision sectors despite a vast natural and human resources. Meeting the needs of a growing population, while embarking on an ambitious economic development with double digit growth rates, requires significant investments in all infrastructure services. To bring adequate level of service, while taking into consideration all existing economic and social conditions indicate the need for alternative methods and techniques to meet needs and demand. One possible alternative is the adaptation of public-private sector partnership to promote a healthy economic environment and to upgrade the living standards of the population. This cannot be achieved without resolving the numerous challenges facing the local private sector as well as obstacles preventing foreign investors from showing interest to do business in Iraq. It is somehow comforting to know that the Iraqi government through its proposed National Development Plan has recognized the impediments, but formulating solutions is not an easy task. The issue takes the shape of a viscous cycle. Better Infrastructure requires significant involvement from the private sector, while the private sector is not able or hesitant to take part. In order to sustain the projected economic growth, major structural economic changes should be implemented to escape this cycle.

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