Study of the conditions for the development of CBI corridor and examining their validity in the Middle East

Shimon Farhang

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Abstract
The study purposes are: to understand and establish a link between various cross-border infrastructure (CBI) phenomena around the world by exposing their true implications and by presenting ways by which decision-making and practice of CBI development, can be influenced; To propose a new interpretative paradigm for processes in the Middle East and their impact on development of the region; To propose a new practice for changing courses of action in the development of CBI.

CBI development is a result of regional thinking and territorial cooperation which aims strengthening the socio-economic and regional integration between two countries or more, while protecting the common interests and coping with obstacles existing in the process of developing and implementing CBI.

The economic contribution of CBI (JICA, 2009): Enhancing regional connectivity, reducing trading costs, moderating economic gaps between neighboring regions, improving utilization efficiency, fostering comprehensive economic growth, poverty reduction, developing regional integration by eliminating or moderating regulation barriers.

Dissertation presents two essential conclusions to bridge over gaps between CBI project partners:
• Build mutual trust and consensus, based on three important elements: confidential negotiations at the beginning of the process, local initiative based process, joint Strategic Plan as a platform for mutual trust
• "Lifeline" Strategy - Developing interdependence on the existence of CBI corridor vital to all partners. Formulating a critical mass of interests, powerful and significant to all Shareholders, that turns the lifeline corridor essential to all.

1 stonhang001@walla.com
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Introduction
The global arena is undergoing change "from spaces of places to spaces of flows" (Castells, 1989). This description reflects various changes which incorporate far-reaching social and economic consequences, which, on the one hand, motivate and promote the globalization process, while on the other, undermine the traditional "Gatekeeper" role of national borders (Blatter, 2004). The creation of "spaces of flows" is attributed to several factors that have considerable impact on the globalization process, one of the most dominant of which is cross-border infrastructures (CBI) – including all political, economic, physical and administrative components thereof.

Corresponding to the accelerated technological advancements of our time, there is an increase in demand for mobility, accessibility, energy and sources of information using cross-border infrastructures, which had over time become the “lifelines” of the Global Village. Continental Europe is the leader in terms of the quantity and scope of CBI activity conducted within its borders, while in East Asia, CBI is responsible for initiating considerable economic growth and reducing poverty over the past 20 years (Kawai & Nangia, 2007), a change that is primarily attributed to the development of CBI. The improvement of accessibility to larger regional markets is a key component in economic growth. The effectiveness of connectivity provided by CBI bears direct impact on economic development, increase of employment, reduction of poverty and improvement of social services.

Regional integration processes are becoming a global trend. There are considerable efforts being invested in the establishment of new "regionalisms" through economic activity, beginning with the elimination of various physical and regulatory barriers between national borders, and the establishment of a transnational transportation infrastructure that serves as the basis for the development of new “regionalism”.

Because of its geographical location, the Middle East serves as a land bridge between Europe, Asia and Africa. As a result, various ancient transport routes were developed between East and West, among them the famous Silk Road, including all versions thereof. The importance of the region, in terms of economy and strategy, had increased with the discovery of large oil reserves (65% of all global oil reserves) and the growing demand of energy sources. Such a combination provides those who control oil resources with a position of strength. The geopolitical importance of the Middle East is also based
on the fact that disintegration of the existing order may provoke unrest in the Mediterranean region and Europe (Cordesman, 2011) and compromise proper supply of oil to consumers. Professor Itamar Rabinovich (1986) estimated that as of the mid 20th century, the Middle East took on a prominent role in international politics and today, in many ways, it is considered to be the world's most volatile region in terms of strategy, economics, politics, culture and religion. Such a strategic view integrates well with NATO's concept of security, as formulated by the Brussels "Mediterranean Dialogue" Conference held in 1994, the principle of which was recognition of the fact that the security of Europe depends on stability of the Mediterranean region.

The history of the Middle East countries, characterized by their structural heterogeneity and lack of political stability, is expressed by the marginalization of several member countries to the economic backwaters of the central flow of global trade. Middle Eastern countries represent a heterogeneous group of economies, with 3% of the region's population living on similar income levels to those enjoyed by residents of European Union member countries, constituting approximately one quarter of the regional GDP, and the remaining 97% of the population (approximately 300 million people) living on an annual per capita income of $2,900 – $6,000 USD (CIA World factbook, 2013).

Over the past decade, almost all Middle East countries began implementation of restructuring programs designed to restore previous macroeconomic advantages by gradual opening of their economies to the outside world, all in hope of transforming their economic policies from state-based economies into ones that support the private sector. The key topics for regional cooperation, as emerging from the economic analysis, are as follows: the promotion of trade and investment and formulation of regional solutions for cross-border transportation, energy, telecommunications and environmental problems (Poortman, 2005).

Various studies conducted by the World Bank and other international research bodies point out the need to expand the economic base and enhance economic growth in the Middle East by developing various infrastructures, in particular: telecommunications, energy and transportation. The matter was best expressed by the Vice President for the Middle East and North Africa Region at the World Bank, Christiaan Poortman(2005): "Lack of infrastructure is inextricably linked to poverty". The tight dependence between the state of infrastructures and economic development, and the conflict between the development potential of the Middle East and the reality, serve as background for this study.
Research Goals
The problem this study aims to resolve – Identification of the causes behind the lack of CBI in the Middle East and formulation of appropriate steps for resolution of the problem. This study aims to unravel the motives behind the conflict between the demand for CBI and current arrangements, and present a new approach for leading a new direction.

The Research Main Goal - To understand and establish a link between various CBI phenomena from around the world and the Middle East by exposing their true implications and by presenting ways by which practices for development of CBI in the Middle East may be influenced.

From this ultimate goal, several research objectives were derived, each leading the research process and helping to answer the research questions.

Research Objectives:
1. To establish and identify the processes and conceptual structures required for the formulation of a theory for CBI development.
2. To review and interpret all paradigms involved in CBI development around the world.
3. To develop a theory and theoretical model for CBI development in a manner that simplifies understanding of the decision making process concerning such development.
4. To propose a new interpretative paradigm for processes in the Middle East and their impact on development of the region.
5. To examine the theoretical model under specific conditions of the Middle East and the manner by which it may be implemented.
6. To propose a new practice for changing courses of action in the development of CBI in the Middle East.

The Research Questions
In order to understand the existing process better, the researcher will review the manner by which it is implemented in various regions around the world: Europe, Africa and Asia. The information obtained shall assist us in formulation of a theory which explains: What are the conditions for the development of CBI?

Once the processes and conditions that exist around the world are understood, it is necessary to make further investigation of the Middle East region in order to understand: Are the conditions - for the development of CBI - valid for the Middle East?
The Theoretical Framework

Cross-border Infrastructures are the product of territorial cooperation that is designed to strengthen socio-economic integration while maintaining common interests, in order to overcome existing obstacles standing in the way of development and implementation of CBI.

Infrastructures in general, and transportation infrastructures in particular, play a key role in the promotion of economic growth in various regions around the world. The economic growth affects a wide range of population groups and communities, especially in remote areas and in small land-locked countries. Infrastructures facilitate populations by improving the accessibility to markets and basic services, in effect expanding their options for employment opportunities and increasing their income, so that the positive impact of CBI on poorer populations is most obvious. The availability of developed international cross-border infrastructures strengthens the economy’s international competitiveness and expands market potential.

Infrastructure investments have a far-reaching impact, and it is as a consequence of this that the need for regional cooperation arises. Infrastructures influence the global distribution of economies in many ways, often unpredictable. Naturally, the integration of infrastructures creates regional integration; however, it also affects the geographical distribution of economic activity (Ottaviano, Gianmarco, 2008). The reason for this is that the "market characteristics" of the geographical region suggest that the attractiveness of a particular location depends not only on the size of the market and advantages offered by low production costs, but also on the centrality of its location in relation to other areas.

The contribution of cross-border transportation infrastructures that improve mobility is also expressed by a rise in number of people commuting between neighboring countries, primarily in Europe. The topic has already been studied by Bucha, Schmidt, and Niebuhr (2011), who attempted to identify the characteristics of such commuting between Germany and Denmark. Their conclusion was that although the European integration process facilitated employee commuting, the scope of such travel is still relatively minor.

The Economic Impact of CBI – Jica-Takeushi (2009)

Improvement of regional connectivity, reduction of trade-related costs, alleviation of poverty levels and development inequality between economies of neighboring regions,
increase in efficiency of resource utilization, establishment of comprehensive and sustainable economic growth.

Cross-border transportation infrastructures contribute to regional development by eliminating or reducing limitations posed by various obstacles. Notwithstanding, one must not ignore the disadvantages and negative impact of CBI - such as the blurring of international borders and unique cultural identity of nations, free movement of migrant workers and employment-related commuting which compete with the country's sources of income, and so forth.

Obstacles Standing in the Way of CBI - (Association of European Border Regions, 2011)
- Geographical boundaries such as mountains, rivers, seas and lakes, which may not always be overcome.
- Legal obstacles: There are often difficulties in conducting dialogue between 3-5 neighboring countries. Even countries such as Germany, Belgium and Austria, or areas in provinces having authority and legislation, may not succeed because there is no single authority in their level (such as social laws, taxation, etc.).
- Gaps in levels of infrastructure: Periphery areas, primarily in rural sectors, lacking proper road, railway, airport and harbor infrastructures, or having a very low level thereof, pose difficulties that must be bridged.
- Administrative obstacles may exist in situations where one country is either not ready or not interested in implementing change in its institutional bodies, especially in those that benefit from border regions.
- Cultural obstacles such as language, mentality and different lifestyles.
- Social obstacles: Different social systems and standards of living (GDP, per capita income).

The Elimination of Obstacles
The strong will and the political desire to overcome obstacles by implementation of practical solutions is the most important matter. It is possible to overcome all obstacles associated with cross-border cooperation through dialogue between all parties involved during early stages of the project. This is the only way to establish mutual trust, approve plans, develop joint work plans, construct administrative structures, prepare documentation, conceive joint solutions, and bridge differences in mentality (AEBR 2011).
Means for Improvement of Cross-border Cooperation

In matters concerning spatial planning policies:

• Consideration for existing conditions and geographical structure of the region and its requirements in terms of infrastructure, environment, economy, society and culture.
• The involvement of local authorities in CBI areas - as active partners, contributors and beneficiaries of the project - is of utmost importance. Consideration must be given to the contribution of local authorities along borders, for economic growth and employment, as well as increasing the economic diversification of rural areas located in national borders areas.
• Development of a sustainable approach as a basis for establishment of guiding principles across borders.
• Planning of cross-border projects must include the development of business and industrial centers in close proximity to the border settlements.

In terms of transportation infrastructures:

• Cancellation / Reduction of border-crossing obstacles by simplifying regulation and improving technological means.
• The establishment of cross-border transportation infrastructures should be considered a priority and therefore, the construction of international roads and steel railway lines must begin at the international border (AEBR, 2011).
• With respect to commercial freight, the use of short maritime shipping routes is to be preferred over the use of overland transportation options that involve long-distance steel railways and roads.
• The use of steel railway lines must be supported by ensuring proper accessibility using complementary multimodal means.
• The existence of the shortest connectivity between cross-border infrastructures and sea ports is imperative.
• Preference must be given to the development of fast highways between cross-border infrastructures and sea ports.
• Preference must be given to the use of sustainable transportation infrastructures.
• In order to ensure maximum efficiency of transportation infrastructures and proper regional development, improvement of their connectivity with cross-border infrastructures is necessary.
• Preference must be given to the prevention of gaps between the Cross-border transportation infrastructures.
Preference must be given to the development of multimodal cross-border transportation infrastructures.

In terms of environmental protection and landscape – Air, river water, flora and fauna do not stop at international borders. Therefore, the protection of such vital natural assets requires cross-border cooperation (AEBR, 2011).

The Methodology
The research method is a qualitative interpretative method based on the constructivist paradigm (Sabar Ben Yehoshua, 2001; Shkedi, 2003), at the core of which "the perception of reality is complex, multifaceted and subjective ". Therefore, there is no single correct way by which it may be perceived and explained.

The objective of this study is to understand or establish a link between various CBI phenomena around the world and the Middle East, and this will be done by revealing their significance and presenting ways by which it would be possible to influence international proceedings for advancement of the matter. Qualitative research is closely linked to the paradigm of interpretation, which is in essence inductive. For this reason, the study stems from the research questions concerning the reality of the Middle East, which were designed to identify the problem in wider contexts of knowledge, interpret them, or present the differences between them (Shalsky, Alpert, 2007).

The considerations in choosing this qualitative interpretive approach were based on two criteria that define and justify the need for qualitative research (King et al., 1994). The research questions bear practical importance for the development of CBI in the Middle East; the problems concerned in the development of CBI in the Middle East were handled by international bodies that did not produce satisfactory results. The researcher believes that CBI in the Middle East must be handled in an appropriate and unique way.

The Research Tools – Various research and studies dealing with CBI, an analysis of findings and various CBI phenomena from around the world (Europe, Asia, Africa and America), and formulation of a theory upon a the theoretical model serves as a tool for continuation of this study is based.

Genre of Research - Action Research –The purpose of this study is to influence the field of research, in order to propose changes in current practices in development of CBI in the Middle East. The researcher, a professional CBI planner who was involved in
Numerous CBI projects around the world, with extensive experience, particularly in the Middle East, introduces an interpretive paradigm to the research area, and this informs a new strategy for the development of CBI in the Middle East.

According to some definitions, action research, as a genre of qualitative research, involves a process of change or intervention that is planned and tested within framework of the research. Action research also has practical goals, such as extending the knowledge of professionals in all aspects concerning their work and various goals of empowerment, fostering of equality in control of knowledge, and promoting the status of “men of action” into one of “creators of knowledge” (Alpert and Kfir 2003).

The Theory – The Theoretical Model
The theory is based on case studies of various locations around the world. We found management of well-structured processes that drive various initiatives of influence, such as the Grate Mekong Region in Southeast Asia, where the development of CBI played an important role in the economic growth enjoyed by the region over the past
20 years. In Europe too, CBI assisted in the establishment of broad integration between member countries of the European Union and beyond.

The process of developing CBI is complicated and extensive, with significant impact on all aspects of life, and when the case involves multiple countries and national institutions, its complexity increases even further. The planning of CBI, and of any preliminary stages prior to planning, involves a very large number of objective and subjective variables. For this reasons, it was decided to present the CBI development process and the factors influencing proper functioning of the system in the form of a theoretical model.

We formulated an interpretive-constructive theory that presents a structured process, including four essential stages, each with its own goals and objectives. Successful achievement of the objectives of each stage constitutes a precondition for progression onto the next stage and the challenges it involves. The progression between stages is not always clear, and there may be some overlapping between them; however, awareness of their existence is crucial to the success of the process as a whole.

The first stage is an internal process that involves the establishment of readiness, while the remaining three stages are actually conditions - political, economic and administrative - and it is they that must all be fulfilled using the following constructive process:

**Stages in Development of CBI Projects**

A. **The Recognition of Need**

The core of the process for establishment of agreements that promote initiative takes place within the state, by execution of preliminary SWOT analysis of the options and risks involved and their comparison with those of the other CBI partners. It is during this initial stage, after a comprehensive analysis, that the desire to initiate such a complex process is formulated. Recognition of this need is the most critical stage in the advancement of such projects, because once that need is recognized, execution of the next step is just a question of time. Recognition of the need is essential for subsequent confrontations with the complexities involved in the promotion of CBI.

B. **Political Dimension of CBI**

CBIs are a product of political-economic policies that promote the foreign policy objectives of governments. There are many interests involved in such decisions, and it is for this reason necessary to consider their long-term contribution and significance.
The conditions for establishing mutual trust between partner countries are an essential basis for execution of steps and progression to the next stage. In addition, there is also need for multi-system involvement and institutional arrangements for understanding and implementing the true goals of the combined effort.

C. Economic Dimension of CBIs - including all aspects thereof and matters pertaining to financing (ADB, 2007).

As we have seen, some of the interested parties who bear the burden are not necessarily those entities who will benefit from the project. Such asymmetry in the distribution of costs and benefits requires attention by introduction of sustainable institutional arrangements. One example is Azerbaijan – a country that exports oil through Turkey. The entity enjoying the CBI is the oil producer – Azerbaijan - whose economy relies on the export of oil; however, Turkey enjoys transit fees for passage of oil through its territory and for operation of the oil port.

When the disparity that appears following distribution of the costs and benefits between the interested parties is significant, implementation of suitable financing arrangements in each of the planning stages is a necessity. The interests of poor transit countries differ from those of the countries that enjoy continuity. For example: In the “North Economic Corridor Project” in Asia’s GMS, most of the benefits are enjoyed by China, with Thailand and Laos PDR – who end up carrying the heavier economic and social costs – enjoying them to a lesser degree. Under such circumstances, it is necessary to ensure proper compensation and adequate financing arrangements that ensure the transit countries also enjoy the benefits offered by the CBI.

CBI projects are long-term capital intensive projects, a factor which bears critical impact on financing and on evaluation of the risk profile of such projects. One must remember that the financing of long-term projects, which provide benefits in the far future but require financing today, often raise budgeting concerns in the present, especially when the project in question has a high risk profile.

CBI projects cannot solely rely on financing by the partner countries, and outside financing sources are often required. In the European Union, financial tools are available for planning of CBI, for the expansion of local markets, and for strengthening of regional competition. The European Investment Bank plays an important role in such projects. Also, Private Sector Participation (PSP) is quite common in many large-scale projects, such as U.S. steel tracks, the Suez Canal, and the Trans European TNT CBI; however, the manner by which the private sector is involved differs from one project to the next. There are many models for Private-Public Partnerships (PPP), each with its own shortcomings and advantages.
D. Administrative & Organizational Dimension which applies to various aspects of Joint Management in Promotion of a CBI

The development of an institutional framework for the administration of CBIs is a complex endeavor. Because most CBI projects involve more than one judicial and political authority, and because daily routines involve extensive activity, there is need for institutional arrangements, both formal and informal, that are able to assist in the cooperation to achieve optimal results. The more complex the CBI, the more important the technocratic cooperation (ADB, 2007).

- Proper cooperation, both formal and informal, is essential, as it enables regulation and assists in cutting costs.
- The role of countries in CBI projects is very important, even if the project is executed by the private sector.
- When a relationship is governed by pure commercial considerations, it is possible to bridge disparities with greater ease.

The theory deals with a highly complex process that involves numerous participants, countries, agencies, international institutes and private companies. In order to simplify the process, we have chosen to present it as a dynamic model of a complex process of consecutive phases that follow one another in a particular order, which eventually leads to realization of the CBI. Preparation of a prototype for the theoretical model assisted in the understanding and studying of the "Research Area", the Middle East. Use of the model narrowed down the areas on which the study focuses, while ignoring subjective time-sensitive issues that this study is unable to answer.

The Theoretical Model

The model consists of four consecutive stages that follow one another in a particular order, ensuring progression towards execution of CBIs between two or more countries.
Illustration of the theoretical model Structure of the Theoretical Model for Development of CBI

The circular model illustrates a process in which several partner countries and international bodies are involved.

The circle is divided into a central core surrounded by 3 rings.

The Core of the Model – Recognition of the need and desire for mutual cooperation.

The First Ring – The political dimension, which involves reaching of agreements out of mutual trust.

The Second Ring – The economic dimension, which involves examination of all options and constraints, preparation of economic plans, and arrival at agreements concerning the costs and benefits of each partner involved.
The Third Ring – The Administrative Organizational Dimension, which involves the establishment of a central body for management of planning and execution, and signing of agreements for each of the CBI components.

The circle is divided into several sectors, each of which represents a different country or entity involved in the project. Any country wishing to become a full partner must pass all stages leading up to final execution. This is represented as a sector through which all color rings pass. A country that is not a full partner, but rather provides the CBI with transit rights only, receives royalties in exchange for providing passage, and its level of participation in the decision-making process is corresponding.

In formulating the theory and theoretical model that may be derived from it, we establish an orderly and dynamic process which is capable of leading the CBI development process - whatever that process may involve. In fact, this process, including all four stages thereof, constitutes a precondition for the development of CBI and provides an answer to the research question - What are the conditions for the development of CBI? Each stage has its own goals and objectives, and there are no shortcuts to be found. Successful completion of one stage serves as precondition for progression onto the next stage. Implementation of the entire model, including all stages thereof, is the key to success in development of the CBI.

To answer the second research question - are the conditions for the development of CBI valid to the Middle East - further study and in-depth investigation of the characteristics and unique reality of the Middle East are required. In this chapter, we reviewed the various processes taking place in the region and the strategic importance of the Middle East on a global level.

The Research Area – The Middle East
The Middle East is a heterogeneous region that is highly complex in terms of politics, economics and social status, and constitutes a land bridge that connects between Europe, Asia and Africa. The region contains the world's largest oil and gas reserves (65% of global oil reserves), and it is for this reason that the importance of Middle East oil continues to grow both strategically and economically. Such a combination provides those who control oil resources with a position of strength. The geopolitical importance of the Middle East is also based on the fact that disintegration of the existing order may provoke unrest in the Mediterranean region and Europe (Cordesman, 2011), and compromise reliable supply of oil to consumers.
As of the mid 20th century, the Middle East has been standing at the center of international politics, and is in many ways still considered to be the world's most volatile region in terms of strategic, economics, politics, culture and religion. The Middle East is the birthplace of the world's three largest monotheistic religions -- Judaism, Christianity and Islam-- and its history is filled with constant and harsh national conflicts, among them the Arab-Israeli Conflict.

It was only towards the beginning of the 21st century that the effects of globalization began filtering into the region. Such processes advance at a slow pace (relative to Europe and Asia), a characteristic that is strongly criticized by modern economists. Most Middle East countries wish to integrate with the economic development offered by globalization; however, this desire requires such countries to fulfill two important conditions (Aharon, 2009):

1. Fast and efficient communications. Telephone communication, and primarily internet connectivity, enables fast communication between different parts of the world (conference calls).
2. Efficient, cheap, and fast transportation options between countries. Fast road systems, cross-border railway lines, modern airports and sea ports all enable fast and efficient mobility.

The economic data of most Middle Eastern countries represents a gloomy picture of economic stagnation relative to other regions in the world. This includes exports, private investment, labor productivity and effective management of natural resources. Many countries have failed to improve their low standard of living.

For example, the total sum of exports coming out of the Arab World -- excluding oil -- is less than that of Finland alone. Such absolute dependence on the export of non-renewable natural resources that have no replacement is very dangerous, as full extraction or depletion of the resource can result a disaster. Reserves of non-renewable resources suffer from rapid depletion.
The best plan for this region is to develop a regional cooperation program, in hopes of expanding the economic base and encouraging economic growth, and this by improving telecommunications, energy and transportation infrastructures to international markets. According to the 2006 World Bank Survey, because the regional infrastructures are so poor and the legal framework and regulation so complex, Middle East countries in effect create barriers that prevent proper trade within the region.

The dynamics of processes in the Middle East are very complex and raise several questions.

On the one hand, the entire region serves as a geographical bridge that connects three continents, with significant potential, which has over time lured many conquerors who recognized the advantages in controlling the region:

- The importance of Middle East oil continues to increase, both strategically and economically, a combination that increases the importance of those countries who control it or who hold large reserves of it.
- The Middle East has the potential to become a land-bridge connecting between Europe, South East Asia, and countries of the Persian Gulf.
- Western nations are concerned about the instability of the Middle East, keep a watchful eye on developments, and are willing to invest in its stabilization, even through investments for encouragement of economic growth, which would have a direct impact on the political stability of the region.
- The Middle East is a developing economic market. The region's relative importance is on the rise – primarily as a large potential market whose population is a
target for European industry products or for capital surpluses that may be invested in the Middle East. The modernization process has indeed increased the region's market potential, while the competition over markets and other economic interests continues to increase on an ongoing basis.

For the most part, the region's importance stems from what it holds underground -- black gold -- and from the great power it provides those who control its sources, but also from the fact that it is the most volatile place on earth -- strategically, economically, politically and culturally -- and disintegration of the existing order may result in unrest in the entire Mediterranean region -- with possible impact on the entire European continent.

The most obvious implication of the above description is that the Middle East requires the development of CBIs in order to expand its own markets, improve accessibility to them, and establish new links with European and Asian markets in various fields of transportation, delivery of oil and water, and power lines.

On the other hand, excluding the oil producing nations, the economic situation of most countries of the region is in a bad state. Economically speaking, the region's countries may be divided into three groups: “Developed Countries” such as Israel and Turkey, “Oil Producing Countries” such as Saudi Arabia, Kuwait and others, and “Developing Countries” such as Egypt, Jordan and others. With a per capita GDP of $2500-6000 USD (CIA 2013), an unemployment rate of 6.3% - 23%, and slow economic growth, most of the countries fall under the category of “Developing Countries”.

The State of Infrastructures: Many oil pipelines have been abandoned; existing transportation infrastructures are unable to meet demands; the management of border crossings, ports and infrastructures is inconsistent with global economy and international standard requirements.

In order to change the situation, it is necessary to respond the challenges of the Middle East (Poortman, 2005):

• Enhancement of Economic Growth and Improvement of Competitiveness of the Region's Countries – Expansion of the economic base would create new jobs. To achieve this, it would be necessary to invest oil revenues in expansion of the economic base, which would encourage long-term growth.

• Reduction of Unemployment – The Middle East region suffers from exceptionally high unemployment, particularly among youth. The inclusion of women in the labor
force remains relatively low, while the accelerated demographic growth means additional demand for approximately 100 million jobs by 2020, jobs that must be on the market as a response to the unemployment problem.

- Coping with Social Challenges - Approximately 23% of the Middle East's population lives on less than $2 USD per day. There is need for investment in economic welfare, such that the existing circle of poverty may be broken.
- Conservation and Development of Water Resources – This matter requires urgent attention. There is a need for better management and more efficient allocation of water resources, in order to prevent shortages that may compromise economic growth and lead to international conflict.

As previously mentioned, the impact of CBIs goes far beyond their physical location and the immediate services they provide.

CBI Impact:

- CBIs are highly influential in driving significant economic growth, a fact which may lead to the establishment of regional integration and draw external investment, both of which would drive the region's economy towards integration with the global economy.
- The region is under constant risk of water shortages for domestic, industrial and agricultural use. It is for this reason necessary to develop infrastructures for carrying of water from areas of abundance to desert regions or to establish a supply of desalinated seawater.
- A large portion of the Middle East's population lives without electricity or means of communications. The development of a CBI power supply network for households use is vital.
- The improvement of transportation infrastructures would assist in improvement of accessibility to markets and service centers.

The Conflict: On the one hand, the state of the economies and infrastructures is at an all-time low. On the other hand, there is a need and potential for CBIs that are capable of leveraging the region's economy and generating growth; however, in reality, the facts are not compatible. In order to understand why CBIs are missing from the Middle East, we must first examine whether it is even possible to develop CBI in the Middle East and whether the conditions, as presented in the theoretical model, are valid in the Middle East.

Are the Conditions for the Development of CBI Valid in the Middle East?
In order to investigate the validity of conditions for development of CBI in the Middle East, we examined the entire region under the Theoretical Model for development of CBI.

The Model Core – The Recognition of Need – This stage may be the heart of the process; however, this study does not deal with analysis of the degree by which particular countries recognize the need. Rather, we are only able to review the extent by which they need it, based on the present economic situation, existing plans for economic development, and references made by various international bodies, such as the World Bank.

The economic data of most Middle Eastern countries (excluding the oil producing countries) indicates a weakness in exports, private investment, labor productivity, and ineffective management of natural resources. Excluding the oil producing countries, most countries were unsuccessful in their attempts to raise their low standard of living. Regretfully, the existing reserves of non-renewable resources suffer from rapid depletion.

The Middle East is in desperate need for expanding its economic base and accelerating economic growth. As a result, there are demands for improvement in infrastructures, access to international markets, and competitive ability - especially in the fields of communication, energy and transportation. In a survey published by the World Bank (2006), it was found that in Middle Eastern countries, “inadequate infrastructures” is ranked third among the obstacles standing in the way of doing business in the region, along with complex legal and regulatory frameworks. There is need for development of CBI in the Middle East. This need is obvious to all countries of the region, to donor countries, and to all other international bodies.

The Political Dimension - Some countries of the region have strong political leadership with better stability than before, and there are various initiatives based on mutual trust and dialogue between some of the countries being promoted with international support. There are various international and regional interests for establishment of cooperation and improvement of accessibility. In addition, there are various international agreements designed to assist in the establishment of such cooperation.

The Economic Dimension – This dimension is of cardinal importance in the Middle East. The region is rich in energy resources and constitutes a major global intersection with potential for economic development. The promotion of international trade, integration
with various globalization processes, improvement of regional integration, and development of new economic levers that are vital to the region is imperative. The oil producing countries could assist the developing countries in the promotion of joint economic projects.

The Organizational Management Dimension - International aid processes drive and advance various initiatives of organization. In the Middle East, apart from the international interests, there are also various agreements, such as the Barcelona Agreement, including all amendments thereof, for management of joint ventures. Countries of the region are promoting various initiatives aimed at integration with the globalization process, and there is also involvement of various aid agreements for financing of the processes required.

The research findings in the Middle East confirm the validity of the conditions for development of CBI, including all components thereof.

In coming to examine the existence of such conditions in the Middle East, we discovered that all of the conditions were both existing and valid, and the evidence for this are those international bodies who are willing to construct CBI in a wide range of fields. The Barcelona Declaration focuses on the establishment of international cooperation for construction of infrastructures and for cross-border cooperation with the European Neighborhood and Partnership Instrument (ENPI). As the topic is reflected in the cross-border cooperation (CBC) strategy, the process involves four main objectives: to promote socioeconomic development in border areas, to handle common challenges, to ensure efficient and secure borders and to promote cooperation between people. Even representatives of the World Bank propose the development of CBI in hopes of changing the economic trends of the region.

At this point, our conclusion is that, according to the theoretical model, the conditions required for development of CBI do exist in the Middle East; however, if the conditions do exist, why is there a lack of CBI in the region?

Given our conclusion that the conditions for development of CBI are indeed valid in the Middle East, namely, that there is potential and need for CBI, we decided it is necessary to investigate the matter on a private case basis involving a specific project, and this at a resolution that is higher than that which was employed until this time.

The Feasibility of Establishing a CBI Corridor between Haifa and Baghdad
We decided to examine the conditions for development of CBI in Middle East, in practice, using a concrete example that would assist us in understanding how the conditions for development of such CBI function in “real time”. The case project we proposed is an infrastructure corridor, connecting between the Persian Gulf and Mediterranean Sea along the shortest possible route, through Israel, Jordan and Iraq, connecting the Iraqi capital of Baghdad with the Jordanian border town of Ma'+raq, from which it continues onto the Jordanian city of Irbid, and from there onto the Sheikh Hussein Border Crossing into Israel, where it continues its final leg towards the seaport of Haifa where the corridor ends. The total length of the corridor would be 1050 km (Landuse, 2005).

Our feasibility study was conducted in several aspects:
- Economics - The effectiveness and economic contribution, cost effectiveness, recognition of need and return on investment.
- Political – Includes the various interests involved in the initiative: countries of the region, donor countries and international bodies.
- Physical – Availability / applicability with respect to existing physical systems and relations between the countries involved.
- Organizational Management - Options for the establishment of an authority for management of the corridor.

Conclusions of Economic Analysis of Possible Transportation Arteries
Analysis of the data pertaining to existing traffic arteries unequivocally demonstrates the advantages of the proposed Haifa - Baghdad Corridor. The corridor is the most convenient, shortest, and cheapest of the alternatives examined. Even if we calculate price of travel time involved, we find that 5 hours of savings in travel time translates into significant savings in transportation costs and provides an advantage in time of arrival, which translates into additional economic savings. The other alternatives do exist and function; however, once development of a Haifa – Baghdad corridor is complete and a comprehensive package of supplementary services is offered, the artery would have significant economic impact as a corridor of peace.

Economic Advantages of a Haifa – Baghdad Corridor
- Significant savings in travel impedance due to 3 factors: travel distance is reduced to a minimum as the road runs along the shortest possible route, duration of travel decreases due to use of this shorter route and better roads, and savings in shipping costs. Further savings may be achieved by the development of related services, improvement of traffic arrangements, and shortening of delay times at border crossings.
• Time savings would improve the reliability of markets that benefit from the corridor.
• Lower product costs as a result of savings in maritime shipping and land transportation.
• Improvement in competitiveness of Middle Eastern markets.
• Development and improvement of regional road systems that branch out and enter the primary road.
• The volume of cargo and general traffic passing in the area is expected to experience significant growth in coming years. At present, the capacity of existing road systems in many points are at almost full capacity. Current estimates regarding the addition of the proposed capacity would ensure continued operation of the transportation system, which is essential for securement of increased economic development within the region.
• Accelerated development of urban centers along the route – encouragement of economic growth in peripheral areas.
• Road of opportunities between and within countries.

Mapping of Interests Concerning the Haifa – Baghdad Corridor
Regional Interests – Analysis of the regional interests map shows the positive impact such a project would have on the interests of all countries involved. The regional interests receive high prospects for realization, primarily based on the broadest common denominator they create. By nature, cross-border projects that bear parallel impact on multiple systems typically result in the appearance of various regional interests and increase feasibility of the project as a whole. The common interest in environmental protection interfaces several life systems and must therefore be addressed, due to its sensitivity and because of commitment to the matter, much like the Barcelona Declaration (1995). Sustainable development must be reflected in various decisions and detailed plans, and of course during implementation and operation of the system as a whole. Successful achievement of the project goals is reflected in the analysis of the interest's map of those countries through which the corridor passes and the benefits expected following its construction, as these may prove to be particularly high under the right conditions.

International Interests – The Haifa – Baghdad Corridor meets the objectives of the Barcelona Declaration. The socioeconomic development in the Middle East may bear direct impact on the overall security of the region and improve the political stability of each and every country within. The leading issues are: establishment of levers for
economic growth of the region, stabilization of the Middle East, increasing of cooperation between countries of the region and expansion of economic activity of those countries that are directly involved – although it is expected that all countries of the region would be able to enjoy various direct and indirect benefits of the corridor. By contrast, there are issues that may prove to be problematic: Sustainable development and strategic accessibility. Accordingly, planning must take all of the above components into account.

Summary of Interests:
The improvement of political stability in the Middle East, which constitutes an ongoing threat upon global peace, is the most important factor in the decision to invest in construction of the land corridor.

- The opening of new markets, with the help of the corridor, would increase the economic activity of all partner countries and donor countries.
- Regional cooperation is an important instrument for building and maintaining stability in the Middle East.
- Reduction of distances between East and West.
- Improvement in trading conditions and competitiveness of the region.
- Rapid movement along the corridor is dependent on quality infrastructure.
- Ensuring of security along the route requires significant investment.
- Development must place emphasis on environmental issues throughout all stages of planning and implementation.

Once economic viability is proven and the many interests to which the corridor provides a solution are identified, it is possible to propose the construction of a CBI corridor between Haifa and Baghdad. The existing transportation network provides a range of accessibility solutions. The shortest traffic route is most probably also the fastest and cheapest route available (as we saw during our analysis of the existing transportation network); however, the existence of a shorter route is not sufficient – it is also necessary to support its operation by providing a range of services as response to various needs. In addition, the channeling of all traffic onto one single road requires a new systemic approach that is able to respond to existing and future problems.

A land-based infrastructures corridor project could provide a full and comprehensive response to the common interests of all countries of the region and of the developed world. Analysis of the transportation infrastructure and geopolitical conditions of the Middle East, from an international perspective, leads to the following conclusions:
1. On the basis of the existing transport network is developing an economic activity, which is increasing with the stabilization of the political situation of the region. Within this existing network, the Haifa - Baghdad route seems to stand out as the most convenient route with obvious advantages: the distance between the point of origin and final destination is the shortest, maritime and overland transportation times are shortest, and the total shipping cost is the lowest.

2. The dynamic environment of the Middle East is currently facing an opportunity that continues to open, along with the development of content-related cooperation between countries of the region and the developed world, all on the basis of primarily strategic-economic cooperation.

3. The Barcelona Declaration and its derivatives establish the need for the development of a project that would require broad cooperation between nations, through construction of the infrastructures corridor as a complementary step for the expansion of international economic activity in the Middle East and for the development of free trade zones.

The “Lifeline” Strategy
Given the complexity of the opening conditions that influence the decision making process for development of CBI in the Middle East, it is necessary to identify more ways by which it would be possible to tighten control and ensure sustainability of the CBI. We found that once the corridor becomes a “Lifeline” for the countries involved, those countries would develop a growing dependency on its existence. The implication of this is that the infrastructure becomes an existential need for more than one country. Such initiative would create a combination of interests concerning the corridor, with each country and entity having its own vested interest, and with each such entity considering it essential to protect and maintain its uninterrupted operation. In this manner, long-term protection and existence of the corridor could be ensured.

The Haifa - Baghdad Corridor would be a complex “lifeline”, including a highway road and railway line for transportation of cargo and passengers, with oil, gas, water, electricity and communication lines running alongside it. Together, these would create a comprehensive infrastructures corridor with a critical mass of vital interests. The intensity of this mass and its vital importance to the partners would render the corridor an essential “lifeline”, which all parties would be happy to protect.
Are the Conditions for Development of a CBI Corridor valid along the Haifa - Baghdad Corridor?

The Haifa - Baghdad corridor was studied several times in the past by the researcher who identified its great potential in 1994 and subsequently in 2005. A group of researchers from several planning disciplines (Landuse, 2005) strengthened perceptions regarding the possibilities for development of CBI along the Haifa - Baghdad Corridor. For purposes of correctness, it must be noted that the recognition of need is an internal process which each country must formulate on its own; however, this process is beyond the scope of this study, which goes no further than mentioning its existence.

The Political Dimension
The planning strategy upon which planning of the land corridor was devised was based on the European Community's strategic plan, as presented in the “Euro-Med Partnership, Regional Strategy Paper 2002-2006” document - the purpose and power of which are derived from the Barcelona Declaration.

"The Regional Strategy Paper focuses on the objective of promoting regional, sub-regional and cross-border co-operation between the EU and Mediterranean partners, and between the Mediterranean partners themselves. The strategy paper puts forward five priority areas, selected for their regional added value".

By this approach, we actually strengthen the project's base of existence by integration with the European Union's strategic plan and by obtainment of the required economic and political assistance and support.

An analysis of the interests involved in the Haifa - Baghdad project serves as testimony of the need and readiness for establishment of CBIs in the region.

Regional Interests – An analysis of the interests involved shows the positive impact the project has on the realization of most interests of those countries that border it. It is the regional interests that have the highest chances of realization, primarily due to the broadest common denominator they create. By their very nature, CBI projects that influence multiple systems in parallel tend to attract more regional interests, which in turn increase feasibility of the project as a whole.

Foreign Interests – The Haifa – Baghdad Corridor meets the objectives of the Barcelona Declaration. The social economic development in the Middle East may have direct
impact on the general security and political stability of the region. The primary issues are: creation of leverage for economic growth in the region, stabilization of the Middle East, enhancement of cooperation between countries of the region, and increased economic activity in those countries that are directly involved in the project, with all other countries of the region enjoying its direct and indirect contribution.

The Economic Dimension
An economic analysis of possible Traffic Arteries
Analysis of the data clearly shows the advantages offered by the Haifa – Baghdad corridor in all aspects of travel impedance: distance of the overland route, duration of travel (a derivative of existing road conditions), and cost of maritime shipping in comparison to all other alternatives. Even when the cost of travel time is incorporated into pricing, we find that the cutting of 5 hours in travel translates into significant savings in transportation costs and gives an advantage in time of arrival – which translates into further economic savings. The other alternatives do exist and operate; however, once development of a Haifa – Baghdad corridor is complete and a comprehensive package of supplementary services is offered, the road would have significant economic impact as a corridor of peace.

The opening of new markets, with assistance of the corridor, would increase the economic activity of all partner and donor countries. This would improve the competitiveness of Middle East markets by reducing product costs, due to cost savings in maritime shipping and overland transportation costs.

Regional Integration – Improvement of existing conditions for regional trade and competitiveness of the region. Development and improvement of regional road systems that branch out or enter the primary road. Rapid development of urban centers along the road – encouragement of economic growth in peripheral areas.

Rapid movement along the road, subject to the availability of quality infrastructure, would provide significant savings in travel impedance. Such savings may be achieved by three factors: shorter travel distance along the shortest possible route, shorter travel time due to shorter route and improved alignment, and reduction in cost of shipping – and all this in addition to the development of supplementary services, improvements in traffic management, and reduction of border crossing delays. Time savings translate into an increase in the reliability of those markets that benefit from the corridor.

The Administrative Organizational Dimension
The area through which the overland corridor passes is highly complex in terms of politics, and it is for this reason that we recommend recruitment of strong and stable international entities who are experienced in the management of CBI, and who, together with the region's countries, would establish an international authority for management of the Haifa - Baghdad Corridor. The structure of this Corridor Management Authority would balance between the need of governments to control the activities taking place in the corridor section running through their territory and the ultimate goal to improve overall efficiency in functionality of the system as a whole. Management of Border Crossings – The Corridor Management Authority shall make suitable arrangements with all interested countries in order to ensure, on the one hand, the interests of those countries through which the corridor passes (security, income, failure to prevent entry of prohibited substances, maintenance, cooperation, etc.), while on the other, the uninterrupted flow of passenger and cargo traffic towards their destination.

Given such conditions, it is necessary to propose a management system that is capable of bridging the existing communication gaps. Such a system should be based on cooperation with foreign entities that are acceptable to all partner countries, such as the European Union - through various frameworks it has already established for development of the Middle East - and the World Bank, which considers itself a partner to development processes taking place in the region.

The European Union's Cross Border Cooperation (CBC) (European Commission, 2007) strategy:

• To promote social and economic development in border areas
• To handle common challenges
• To ensure effective and safe borders
• To promote cooperation between people

Energy – Approval of a five-year action plan that focuses on improving cooperation and integration between separate energy markets, sustainable development, and development of common interest initiatives, such as cooperation in matters concerning European gas, the Mashrek countries, and so forth.

Transportation - Approval of the RTAP (The World Bank, 2011) regional plan in the following areas: maritime shipping, road systems, railway systems, civil aviation, multi-model transportation and transportation infrastructure networks. Such actions should
be implemented by partner governments, within framework of their own national policies, or on a multilateral level through collaboration and exchange of information.

Finance - The World Bank considers itself a full partner in promoting the successful development of infrastructures in the Middle East. To ensure success of the initiative, we propose improvement of the infrastructures' management systems, QA, and streamlining of the services provided, and this in addition to implementation of regulatory reforms that are compliant with international standard requirements. The World Bank seeks to be a key partner in confronting the challenges involved in the development of infrastructures in the region. The World Bank brings with it much global experience, with many lessons learnt in matters concerning policy and regulation, offering its services to various projects, such that the countries involved are able to learn from successes and avoid failure.

The findings emerging from review of the validity of conditions for development of CBI in the Middle East, along the Haifa - Baghdad Corridor, validate findings of similar studies conducted in the past. The findings of the Haifa - Baghdad Corridor confirm the fact that there is great need for development of CBI in the Middle East, that there are regional and international interests in its construction, and that the project is economically feasible. On a political level, it is possible to establish a bridge between Israel, Jordan and Iraq, and this despite the fact that Israel and Iraq do not maintain any peaceful relations between them. The economic benefits involved are obvious to all. On an organizational-administrative level, there is a window of opportunity to develop an international system for management of the proposed corridor. The theoretical model, including all stages thereof, stood the test of feasibility.

**The conclusions**

Based on this analysis, it may be said that the Haifa - Baghdad Corridor meets all of the conditions of the theoretical model for the development of CBI, and that these conditions are also valid for development of CBI in the Middle East. The conditions were tested against the political dimension, the economic dimension and the Administrative Organizational Dimension, and were found to be compliant and assimilated in an optimal manner.

Analysis of the conflict existing between the need for CBI in the Middle East and the Present Reality

If all of the conditions for development of CBI in the Middle East are valid, and if there is a high potential for its implementation and great need for its development, then we
should be witnessing the development of numerous CBIs between countries of the region; however, that is not the case.

The above facts raise several questions. On the one hand, the region has great potential for the development of CBI in a variety of fields, and it is hungry for economic development; on the other hand, actual implementation in the field is nowhere near its potential and falls short of the need for development of economic levers. Although the research question concerning the validity of conditions in the Middle East has been answered, it is still unclear why there is a lack of CBI in the region, despite the validity of conditions for such development.

The above statements raise another research question – What are the obstacles interfering with the development of CBI in the Middle East and how may they be solved? In order to clarify this complex question, we decided to search the research area for factors that have a wide common denominator that is shared by as many countries of the region as possible, any factors that hold critical impact over the entire system, factors that are blocking the implementation and realization of the Middle East’s untapped potential. To do this, we were forced to examine the various processes which took place in the region, searching for those having far-reaching implications.

Following our investigation, we were able to identify several factors that have a significant impact on the ability to reach agreements regarding the development of CBI:

• Distrust and fear of foreign entities and interests -- given the colonial past of the Middle East.
• A lack of initiative, due to the fact that control of the region was previously in foreign hands.
• Suspicion and distrust of entities who wish to take control of oil reserves.
• Instability of internal politics.

In coming to analyze such impact, we arrived at a conclusion that the manner and practicality by which the theoretical model for development of CBI in the Middle East is implemented must confront the aforementioned obstacles in a manner that approaches the matter with sensitivity and consideration of these factors, even when they are hidden under the surface, with special attention to specific negotiation practices that are characteristic of the local manners – and must be based on the following principles, all of which are essential for the development of CBI:
Local Initiative – The initiative to promote the development of CBI must be local, as must management of the entire process, and this in order to avoid the emergence of concerns and suspicion.

Secrecy – In its earlier phases, all negotiations must be conducted in secrecy, by and between the countries of the region alone, without any interference by foreign elements or countries, and this in order to avoid internal pressures, stress and disruption of local politics.

The local countries who stand behind the initiative would formulate a preliminary assessment of the strategic goals they each expect from the CBI with respect to their own countries, and once having reached mutual agreement, they shall invite strategic partners to join.

Once having analyzed all of the conditions existing in the Middle East and having understood the factors influencing the development of CBI, the study leads us to a conclusion that in order to develop CBI in the Middle East, the process requires the addition of a "Mediating Factor" based on the principles specified above. Management of the process must be a local initiative, carried out in a covert manner during its early stages, while formulating preliminary strategies as a platform for further negotiations with the various countries and international institutes involved.

The Practice of Including a Mediating Factor

The principles of the Mediating Factor are based on the analysis of regional conditions and must be carried out in parallel to the first phase. The conditions are essential for establishing the mutual trust upon which the entire CBI development process would be based.

1. The Importance of local initiative in leading of the process - The core countries through which the CBI passes must be those who lead the initiative and manage progress throughout all stages of the process. The existence of local initiative and cooperation from the very first step are essential to the success of the CBI. Local initiative protects local and regional interests and alleviates concerns of foreign takeover.

2. In this stage, all contact is conducted in a covert manner - The core partners must together undertake covert steps, in order to prevent political pressure from both domestic and foreign elements, as such pressures may undermine success of the project as a whole.
3. Political awareness and sensitivity during establishment of the consensus – The core partner countries must be alert and sensitive to all factors that may influence the process, and this out of understanding and caution, throughout all phases thereof.

The process, following addition of a “Mediating Factor” that initiates change of the model.

Addition of Mediating Factor – the Theoretical Model for Development of CBI in the Middle East

Once having completed examination of the model in the Middle East and having added the “Mediating Factor”, we have in fact developed a new practice of a model that is better suited for the reality of the Middle East. This model is a product of the action research and is based on a qualitative-interpretive study of various CBIs around the world, which has undergone modification and revision such that it is better suited for the Middle East. Most of the studies dealing with CBI in the Middle East deal with the economic and organizational aspects of the topic and ignore the subjective difficulties that are so characteristic of the region. This action research addresses the nature of these difficulties and presents innovative ways by which the establishment of CBI in the Middle East may be achieved.
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