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ALLOCATING INDUSTRIAL LAND USE IN JORDAN

Brief Review of Initiatives

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BRIEF REVIEW OF INITIATIVES

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EXECUTIVE SUMMARY

This report briefly reviews central and local GoJ initiatives to zone and map land in Jordan for industrial use. The primary concern of government regarding industrial land use is to ensure land is appropriately allocated among competing users, i.e. residential, commercial, industrial and agricultural while minimizing the environmental, infrastructural and social impact of land use. The Greater Amman Municipality (GAM) has successfully developed a long-term land use master plan for the city, including an industrial land policy. The newly established Amman Institute is applying its experience at GAM to promote urban planning excellence throughout the region, including industrial zoning programs in Irbid, Zarqa and Salt. The GAM industrial land policy has identified three areas in Amman to accommodate new and existing industry with sufficient space to meet demand for industrial land for likely another fifty years.

In 2006, an independent international consultant was contracted by the European-funded EJADA Project to prepare an industrial map, using Tunisian experience, for the Ministry of Industry and Trade.¹ Demand for industrial land is based on apparently overoptimistic National Agenda manufacturing and service sector forecasts.² This demand is compared to existing and potential land availability in industrial estates and free zones over the period 2005-2030. The study identifies appropriate sites for new industrial estates and free zones in each governorate and suggests a time-line for their development. Industrial estates and free zones currently occupy about 33,000 dunums – sufficient to meet demand until at least 2017. The study is a very useful exercise, not only as an inventory and forecast of industrial land use but also as a comparison of the main physical and economic attributes for industry in each governorate. See Annex One of this report for a summary of the report's priority area recommendations and Annex Two for a table summarizing governorate attributes.

A further concern of government is to encourage industrial investors to locate in higher unemployment and lower income regions of the country outside of an increasingly congested Amman. However, governments should avoid using zoning or industrial maps to direct or prescribe the location of specific industries rather than reserving land to suitable for industry in general. Investors are better incentivized than government to select a location that satisfies both their input and market requirements. Many special economic zones (industrial estates, free zones, etc) have failed because governments have selected sites unable to provide the labor, utility or infrastructure requirements of end users – see Box 1 of the report.

Governments need to steer a middle path between no land use planning at all and dictating the locations of individual industries. By ensuring economic resources are efficiently priced, e.g. land tenure, labor, utilities, transport, government services, etc. while controlling negative externalities such as pollution and congestion costs, government can let the market decide the spatial distribution of industry throughout the nation. Experience of other countries with large congested industrial centers, i.e. Brazil (San Paolo), South Korea and Thailand (Bangkok), show that industrial decentralization follows market forces as rising land, labor and congestion costs encourage investment in concentric circles around the

¹ Findings were summarized in an two annex report for the Minister, *Study for Identifying and Developing Priority Industrial Areas - The Industrial Map Project*, May, 2006

² The study applies an annual compounding growth rate of eleven percent for both investment and employment, as applied by the study authors from rates used in the National Agenda. Gross fixed capital formation has grown at an annual compounding rate of only 6.4 percent in the 25 years between 1982 and 2006, while private and public enterprise employment has grown at about five percent each year since the Department of Statistics began this series in 1992. (derived from Central Bank of Jordan Annual Series Table 36 and Department of Statistics employment data)

industrial core.³ Initial movement is over short distances from the core to locations where land prices are lower but infrastructure and labor is sufficient to meet investor requirements. This has happened to some degree in Jordan with the location of the Ad Dulayl and Al-Hassan industrial estates near Zarqa and Irbid (arguably part of Amman's growth pole). However, the current surplus supply of industrial land in Amman and the almost unique feature in Jordan of the availability of unused land near most urban centers with low alternative use value suggests that land price differences alone will not encourage the movement of industry away from Amman.

While investors will continue to be attracted to remote areas because of unique natural advantages, e.g. minerals or transport access, industrial deconglomeration will likely be a gradual process. The GoJ could support this process by addressing the underlying cause of underdevelopment directly rather than indirectly through inefficient fiscal transfers. The main concerns of investors outside of Amman have been a lack of skilled labor and the low productivity of local workers.⁴ Therefore, specific non-tax government interventions to encourage investment in low-income regions of Jordan could include:

- Vocational training grants
- Supporting worker housing and transport – e.g. through low cost loans, etc.
- Removing all hidden subsidies for land or infrastructure use in public estates, etc. in Amman
- Imposing road user charges and congestion fees in Amman

Industrial estates can address some concerns of investors, in particular, infrastructure and government administration but cannot overcome higher transport costs and labor scarcity.

RECENT THINKING ON LOCAL ECONOMIC DEVELOPMENT

It is useful to comment further on what governments can do to foster local economic development. Annex Three of this report provides extracts from a USAID report that reviewed Jordanian and foreign experience with public-sector assistance to local economic development.⁵

With the strong motivation coming from alleviating regional disparities, helping the poor, and integrating a nation's economy, governments in many countries, developed or under developed, have tried various policy instruments to reduce such regional disparities. However, a blunt assessment of these experiments, based on an empirical study of eight industrial and 18 non-industrial countries, is that "local economic development policies have failed in almost all countries – federal and unitary alike – to reduce regional inequalities."⁶ An outcome is that, in replacing the various, conventional, locally-targeted fiscal incentives or financial infusion, a popular approach is to bring together all the stakeholders – government and private – to exploit agglomerations by making full use of local immobile

³ Sauwalak Kittiprapas, *Regional Development in Thailand – Divergence and Recent Deconcentration*, Thailand Development Research Institute, 1999

⁴ See the discussion of regional economic development in Jordan in *Overview of Non-fiscal Measures to Attract Investment*, Gabi Afram, Amal Al-Nashef, Rana Dababneh (Al-Jidara), Duanjie Chen, Eugene Reilly (The Services Group), AMIR Program, April 2005. Extracts of the report are presented herein Annex Three.

⁵ *Overview of Non-fiscal Measures to Attract Investment*, Gabi Afram, Amal Al-Nashef, Rana Dababneh (Al-Jidara), Duanjie Chen, Eugene Reilly (The Services Group), AMIR Program, April 2005.

⁶ Shankar, Raja, and Anwar Shah (2003), "Bridging the Economic Divide Within Countries: A Scorecard on the Performance of Regional Policies in Reducing Regional Income Disparities," in *World Development*, Vol. 31, Issue 8, August 2003, pp. 1421-1441.

resources, accelerating innovation, and encouraging local competitiveness on a global stage.

The implication of this policy switch is that local economic-development policy should encourage agglomeration by aiming at areas with high growth potential rather than those with little unused resources. This is not to say that the policy direction in helping the poor is wrong, but the question is what kind of policy actually works. Facing the intensified challenge of this question, policy makers are increasingly linking together local innovation, industry clusters, and rural development.

What does a government need to do to accommodate agglomeration economies, related urbanization, and rural development? There is no doubt that provision of infrastructure is crucial as labor migration requires housing, transportation, public utilities, medical services, education system, and more. Above all, perhaps, institutional support and strategic planning are important for cultivating economic dynamics, which are keys for sustainable growth and development.

What, then, are the main elements of institutional support? And what level of strategic planning should a government have in mind? Besides a pro-business government leadership that provides a stable social and political environment including a sound legal system, the main elements of institutional support for a business-friendly environment may include the following: a close cooperation between government and business sector, an effective coordination within the government, and a sound tax system.

The GoJ is moving in this new direction by replacing geographic fiscal incentives with improvements to both local and national business climates. New development zones can provide better governance and infrastructure in low-income regions of the Kingdom. Income tax and trade policy reforms seek to reduce national economic inefficiencies. GoJ programs, including SABEQ and the Development Zones Commission, are facilitating dialogue and strategic thinking between national and local business stakeholders. Local communities are reaching directly to the global economy, for example Ma'an's plan to research and commercialize energy efficient technologies. This is a slow and arduous process but if based on strategy and market forces is more likely to be sustainable than if based on short-term policy inducements.

INTRODUCTION

The Chairman of the Development Zones Commission, His Excellency Saleh Kilaneh, has requested the opinion of USAID/Jordan and the USAID-funded SABEQ Project on the usefulness and nature of an industrial mapping exercise for Jordan. The author of this report is not a physical planner but offered to prepare this report based on his brief acquaintance with an industrial map exercise undertaken by a consultant in 2006 using the experience of Tunisia and funded by the European Commission delegation in Jordan.

This report briefly discusses industrial land use principles, reviews the Greater Amman Municipality Industrial Land Policy, and summarizes the work and results of the 2006 industrial mapping exercise in Jordan.

ZONING LAND USE

Land is a finite resource; efficient allocation cannot always rely upon price signals alone. Government intervention is necessary to account for non-market values, such as minimizing pollution of neighboring land uses, clustering like activities to minimize utility supply and public service costs, ensure adequate transport access, protect health and safety, conserving aesthetic values, maximizing access to consumers, etc.

Local government zoning policies allocate land to four broad competing land uses, i.e. residential, commercial, industry and agriculture. Each category of land use has specific requirements which can be matched as far as possible to characteristics of areas or zones of land within the local jurisdiction. In general, commercial activities are located as hubs surrounded by residential areas to both consume commercial services and supply labor. Industrial activities lie outside both of these areas and agriculture occupies the periphery. Industrial activities are usually disaggregated and zoned into light, medium and heavy industry depending on the scale and environmental impact of the industry. Zoning also provides a mechanism to differentiate the rate of land tax to be applied by local government to each category of land use.

INDUSTRIAL MAPPING

There appears to be no single standard or definition of industrial map – the phrase loosely applies to any geographic description of industrial land use, on a national, regional or local scale. Zoning, in contrast, allocates land use to specific zones at the city or municipality level. Industrial maps could include national country maps of mineral deposits as well as maps of all industrial zoned land. In general, local governments around the world are increasingly adopting detailed Geographic Information System (GIS) applications to better understand the geographic, environmental, economic, social and physical infrastructure features of land within their jurisdiction. Many governments seek to apply proactive approaches to encourage industrialization and promote its perceived economic advantages; through fiscal and non-fiscal incentives, i.e. income tax, grants, training, marketing and promotion, etc. Industrial mapping can be an innovative way to present site location information to potential investors.

Industrial maps risk being used by government to direct or prescribe the location of individual industries rather than reserving suitable land to industry in general. Allocating land to specific industries is based either on their perceived synergistic advantages to the national economy, the abundance of a perceived key industrial input, or to minimize a perceived adverse impact on nearby land use. Linking locations to particular industries is akin to governments seeking to “pick winners” through income tax and capital incentives. Investors are better incentivized than

government to select a site that satisfies both their input and market requirements. Many special economic zones (industrial estates, free zones, etc) have failed because governments have selected sites not able to provide the labor, utility or infrastructure requirements of end users – see Box 1 below.

Box 1. Physical Design, Development, and Management Practices

Difficulties in harnessing the full potential of zones are often linked to poor site location, design, and development practices. Most government-developed zones, for example, were located in remote areas to act as growth poles. The location of many others reflected political rather than economic and technical factors. While the Philippines Bataan EPZ is probably the most common example of this, it is certainly not alone.

- The Cartagena Free Zone in Colombia was located on a swamp resulting in extremely high capital development costs.
- The San Bartolo Free Zone in El Salvador had to be subsidized to offset high development costs due to poor site conditions.
- The Katunayake EPZ in Sri Lanka was poorly designed, resulting in congestion, over-crowding, and social unrest.
- The design of the Kingston Free Zone in Jamaica did not provide enough open space and social amenities, resulting in over-crowding and continuing labor problems.

Other zones were over-developed, much ahead of investor demand. For example, in its first two years of operations the Zolic Free Zone in Guatemala constructed over 24,000 square meters of factory space, which sat empty without adequate marketing support (The Services Group, “A Note on Export Processing Zones.” 1991).

Source: Special Economic Zones: Performance, Lessons Learned, and Implications for Zone Development, FIAS, April 2008, page 50

Predicting the adverse impact of an industry on neighboring land use is also difficult. While it is necessary to zone land in order to separate broad classes of industrial activity from residential and commercial land use based on agreed environmental and social criteria, policy makers should avoid assuming that the environmental or physical impacts of a particular industry are known and unchanging. Instead, local governments can apply market mechanisms to limit pollution and the consumption of scarce resources and infrastructural services by any industry located in a particular area of land. With continual process innovation, industries are reducing their water and energy consumption and reducing polluting emissions.

Governments need to steer a middle path between no land use planning at all and dictating the locations of individual industries. By ensuring economic resources are efficiently priced, e.g. land tenure, labor, utilities, transport, government services, etc. while controlling negative externalities such as pollution and congestion costs, government can let the market decide the spatial distribution of industry throughout the nation. Indeed the market value of land on its own and the need for low cost access to raw materials generally precludes most heavy industries locating close to residential areas.

Local community involvement is also an important determinant of industrial location. The local community derives its own value from use of land in the community – values that can often be ignored by central government. Government and investors need to account for local land use

values before allocating the land to a particular industrial purpose. A Canadian company is seeking compensation from the Egyptian Government when the Egyptian cabinet cancelled an agreement after construction of a \$1.2 billion fertilizer plant five kilometers from Egypt's Ras El-Barr resort on the northeastern coast was forty percent completed. Local residents protesting the perceived environmental impact prompted a Parliamentary committee to recommend the plant's relocation, even though the committee stated that existing plant would be safe.⁷

National Jordanian Industrial Map

In 2006, an independent international consultant was contracted by the European-funded EJADA Project to prepare an industrial map, using Tunisian experience, for the Ministry of Industry and Trade.⁸ The report maps forecast demand for land against land availability in public and private industrial estates and public free zones over the period 2005-2030. The study also identifies appropriate sites for new industrial estates and free zones in each governorate and suggests a time-line for their development. The authors recommend that the government consider new incentives in order to encourage development of new zones. The results indicate locations where land is available and where existing zones could be expanded or new zones constructed. See Annex One for a summary of the reports priority area recommendations.

Consultants used National Agenda estimates to project demand for space in industrial estates and free zones from investment in nine sectors. Manufacturing comprised apparel, food and beverage, metals, pharmaceuticals, minerals and furniture. Services comprised tourism, healthcare services and IT services. Investment and employment growth were projected from the 2005 base year up to 2030 at an 11% compound annualized growth rate (CAGR) for manufacturing and 15% CAGR for services. Standard ratios of 100 industrial workers per hectare and 80 service workers per hectare were applied to project the total demand for land in industrial estates and free zones.⁹

The study reveals that industrial estates and free zones currently occupy about 33,000 dunums – sufficient to meet demand until 2017. However, an additional 118,000 dunums are projected to be required between 2017 and 2030. This large area of new land required appears unrealistic by relying on the overoptimistic National Agenda growth rates. Gross fixed capital formation has grown at an annual compounding rate of only 6.4 percent in the 25 years between 1982 and 2006, while private and public enterprise employment has grown at about five percent each year since the Department of Statistics began this series in 1992.¹⁰ Regardless of the actual area of industrial land forecast, the study is a very useful exercise, not only as an inventory and forecast of industrial land use but also as a comparison of the main physical and economic attributes for industry in each governorate. See Annex One of this report for a summary of the report's priority area recommendations and Annex Two for a table summarizing governorate attributes.

The study also ranked the Kingdom's 12 Governorates according to eleven indicators reflecting industrial investor attractiveness. Each governorate was scored for each indicator using a scale

⁷ <http://www.reuters.com/article/CHMMFG/idUSL567177220080805>

⁸ Findings were summarized in an two annex report for the Minister, *Study for Identifying and Developing Priority Industrial Areas - The Industrial Map Project*, May, 2006

⁹ Services were assumed to represent 30% of the total occupied land in estates and zones.

¹⁰ Derived by the author from Central Bank of Jordan Annual Series Table 36 and Department of Statistics website employment data.

of 0-6 where a score of 0 indicates the indicator is not represented at all in the governorate and 6 shows excellent representation. Results are presented in Annex Two of this report. Amman received a score of 152, more than double the remaining top four ranked governorates: Irbid (74), Zarqa (64), Karak (60) and Aqaba (58). This certainly corresponds to the continuing attraction of investors to locate in Amman.

The Minister of Industry and Trade, Al-Zoubi, was interested to use the map to streamline business licensing for industry. The majority of industries would be automatically pre-qualified to operate within zones to which they are allocated by the industrial map. A short list of activities would require special processing. Furthermore, developers and investors operating in zones outside of the Map would not qualify for any other incentives provided by GoJ.

INDUSTRIAL ZONING AT THE GREATER AMMAN MUNICIPALITY

GAM contracted BearingPoint in 2006 to support the municipality too develop a land use master plan for Amman to accommodate development of the city through to 2025. The resulting Amman Plan has received international recognition including the 2007 Town Planning Leadership Award and the Asia-Pacific City-of-the-Year Award for Leadership.

One of the components of the Amman Plan is the Industrial Lands Policy (ILP). The ILP guides existing and future industrial land use in Amman to areas capable of supporting industrial expansion with appropriate infrastructure, environmental absorption capacity and appropriate access to labor and markets¹¹. Existing settlements, environmental features, agricultural lands, and major cultural heritage sites are protected from industrial land use encroachment. By concentrating infrastructural investment in defined and concentrated industrial areas, GAM, utility providers and developers can pass on the cost savings to industrial users.

Industrial land use regulations will address land use, building height, and building form, and are used in concert with the Area Zoning Map and Area Concept Plans to achieve the planning intent. Area concept plans provide further explanatory detail, including:

- the basis for evaluating project proposals
- a transportation structure within which individual projects can be located
- a basis for estimating servicing and infrastructure costs and requirements
- a basis for Developers to evaluate project viability and marketability in each Industrial Area

The following five land use designations were developed for the ILP:

- Transitional Industry – small workshops and vocational training centers
- Light Industry – small scale and self-contained plants with low risk of unexpected emissions
- Medium Industry – medium scale plants with outdoor storage and heavy traffic flows
- Heavy Industry – large scale manufacturing and processing plants with frequent emissions and continuous movement of goods and people
- Prestige Industry – business and research and development parks

Applying land use criteria based on compatible land use, flexible supply of land, environmental impact, road access, proximity of worker residence, access to other infrastructure and servicing synergies, GAM selected the following three areas for industrial land development around Amman:

¹¹ See the Greater Amman Municipality Interim Industrial Land Policy Development Manual, PMU, 18 August 2007

- Sahab – Al Mouwaqer Corridor: additional industrial areas are proposed along this important metropolitan corridor that takes into account existing industrial uses. Industrial uses within this area will be medium and light industrial uses, defined to provided sufficient buffering from existing settlements in Al Mouwaqer and Nqeera.
- Qastal Industrial Area: utilizing the existing industrial area of Qastal, the concept plan provides additional land south towards the airport and East to the Airport Corridor. Permitted uses in these additional lands will be for prestige industries or master planned industrial uses for business or research and development parks. Remaining lands are classified according to light and medium industry to provide sufficient buffering for prestige uses.
- Al Jeezah Industrial Area: an industrial area will be provided south of Al Jeezah that accounts for existing industrial areas and proposes a mix of medium and light industries. This industrial area will serve as an employment anchor for the southern growth of the Al Jeezah community with the proposed Tameer affordable housing project east of the area.

Jerry Post has remained in Amman to work with GAM to found the Amman Institute – providing urban planning expertise to communities throughout the region. The Amman Institute is supporting municipalities in Zarqa, Irbid and Salt to develop their own industrial land policies.

The project leader for the BearingPoint project, Jerry Post, suggests that the three areas identified by the ILP for industrial development have sufficient land to meet demand until at least 2050. Higher industrial land prices in and around Amman appear to have discouraged little, if any, new industrial investment in the city. Efficient industrial land use planning in other Jordanian cities may attract some new industrial investment, however the experience of well-run industrial estates and zones outside of Amman does not suggest that good planning alone will attract new industrial investment.

ENCOURAGING REGIONAL ECONOMIC DEVELOPMENT IN JORDAN

The GoJ is seeking to remove the current spectrum of income tax incentives available for investors based on geographic location within Jordan. As demonstrated elsewhere in the world, such fiscal incentives have had dubious impact on geographic allocation of industry within Jordan. However, the GoJ is concerned to address persistent unemployment and low incomes in rural areas of Jordan. Experience of other countries with large growth poles, i.e. Brazil (San Paolo), South Korea and Thailand (Bangkok) show that industrial decentralization follows market forces as rising land, labor and congestion costs encourage investment in concentric circles around the growth pole.¹² Initial movement is over short distances from the growth pole to locations where infrastructure and labor is sufficient to meet investor requirements. This is already happening in Jordan with the Ad Dulayl and Hasan industrial estates closer to Zarqa and Irbid than Amman.

This suggests that while investors will continue to be attracted to remote areas because of unique natural advantages, e.g. minerals or transport access, industrial deconglomeration will likely be a gradual process. The GoJ could support this process by addressing the underlying cause of underdevelopment directly rather than indirectly through inefficient fiscal transfers. The main concerns of investors outside of Amman have been a lack of skilled labor and the low

¹² Sauwalak Kittiprapas, *Regional Development in Thailand – Divergence and Recent Deconcentration*, Thailand Development Research Institute, 1999

productivity of local workers.¹³ Therefore, non-tax government interventions to encourage investment in low-income regions of Jordan could include:

- Vocational training grants
- Supporting worker housing and transport – e.g. through low cost loans, etc.
- Removing all hidden subsidies for land or infrastructure use in public estates, etc. in Amman
- Imposing road user charges and congestion fees in Amman

Industrial estates can address some concerns of investors, in particular, infrastructure and government administration but cannot overcome higher transport costs and labor scarcity.

¹³ See the discussion of regional economic development in Jordan in *Overview of Non-fiscal Measures to Attract Investment*, Gabi Afram, Amal Al-Nashef, Rana Dababneh (Al-Jidara), Duanjie Chen, Eugene Reilly (The Services Group), AMIR Program, April 2005. Extracts of the report are presented herein Annex Three.

ANNEX ONE – RECOMMENDATIONS OF INDUSTRIAL MAPPING REPORT¹⁴

PRIORITY AREAS

Governorate industrial land needs were compared to existing land supplies to create the priority land development needs 2006/2012, involving 8 governorates (the Capital, Balqa, Mafrq, Jerash, Zarqa, Ajloun, Tafleh, Madaba). To satisfy the industrial land needs in the governorates up to 2012 as follows:

(i) Capital (Amman):

The estimated land needs by 2012 are: 1,934 dunums

Recommendations:

- Creating an Industrial Estate of 500 dunums developed by either the JIEC or private developers on public land recommended by the Ministry of Municipal and Rural Affairs
- Creating a Free Zone of 500 dunums developed by either the FZC or private developers on public land recommended by the Ministry of Municipal and Rural Affairs
- Develop an Industrial Technology Park on public land recommended by the Ministry of Municipal and Rural Affairs

(ii) Madaba:

The estimated land needs by 2012 are: 1,071 dunums

Recommendations:

- Creating an Industrial Estate of 500 dunums developed by the JIEC

(iii) Ajloun:

The estimated land needs by 2012 are: 986 dunums

Recommendations:

- Creating an Industrial Estate of 191 dunums developed by the JIEC

(iv) Mafrq:

The estimated land needs by 2012 are: 1,071 dunums 98

Recommendations:

- Creating an Industrial Estate of 500 dunums developed by either the JIEC or private developers on public land recommended by the Ministry of Municipal and Rural Affairs

¹⁴ Chapter Eight, pp 95-99

- Creating a Free Zone of 500 dunums developed by either the FZC or private developers on public land recommended by the Ministry of Municipal and Rural Affairs

(v) Tafileh:

The estimated land needs by 2012 are: 1,028 dunums

Recommendations:

- Creating an Industrial Estate developed by the JIEC on land it owns with a total area of 600 dunums in the first phase in Tafileh and 500 dunums in the second phase in Hassa

(vi) Balqa:

The estimated land needs by 2012 are: 1,200 dunums

Recommendations:

- Creating an Industrial Estate of 1,200 dunums developed by the JIEC on land suggested by the Governorate. A final check with the Ministry of Environment and the Ministry of Agriculture is necessary before the final planning stages are complete

(vii) Zarqa:

The estimated land needs by 2012 are: 727 dunums

Recommendations:

- Expanding the Free Zone by an area of 1,000 dunums on shared land between the FZC and the Hashemite University. The current Free Zone is fully utilized.

(viii) Jerash:

The estimated land needs by 2012 are: 1,157 dunums

Recommendations:

- Creating an Industrial Estate of an area of 1,200 dunums across two stages by private developers.

ESTIMATED PROJECT COST

In the absence of detailed data describing development costs in economic activity zones, and external network connections, the direct costs were estimated based on inputs obtained from work groups at the Jordan Industrial Estate Corporation and the Free Zone Corporation. For internal development, costs were estimated at approximately 15 JD/m² with an additional 5 JDs (one-third) needed for external networks and public works. Therefore a total cost of 20 JD/m² was decided upon as the overall cost of the development.

The total cost of about 166 million JDs detailed in the table below, that is distributed across each of the different implementation phases between 2006 – 2012.

ANNEX TWO – RANKING OF GOVERNORATE BY CONDITIONS ATTRACTIVE TO INDUSTRY

	Demography					Economic		Functionality		Geography and Urbanism		Total
	Economically active	Unemployment rate (%)	Professionals	Present skills	Proximity to training centres	Existing firms	Admin. capacity	Proximity to port	Proximity to airport	Construction	Services	
Weight	4	4	4	2	2	4	1	2	2	2	3	Score
Capital	6	1	6	6	6	6	6	2	6	6	6	152
Irbid	3	4	3	3	2	1	1	1	3	4	1	74
Zarqa	3	2	2	3	1	2	1	1	5	2	1	64
Balqa	2	2	2	2	1	1	1	2	5	2	1	56
Mafrq	1	4	1	1	1	1	1	1	4	2	1	50
Karak	1	6	1	1	2	1	1	3	3	1	1	60
Jerash	1	5	1	1	1	1	1	1	5	1	1	54
Madaba	1	3	1	1	2	1	1	2	5	1	1	50
Ajloun	1	4	1	1	0	1	1	1	4	1	1	46
Aqaba	1	3	1	1	1	1	1	6	6	1	1	58
Maan	1	3	1	1	1	1	1	4	2	1	1	46
Tafileh	1	4	1	1	1	1	1	4	1	1	1	48

ANNEX THREE – REGIONAL ECONOMIC DEVELOPMENT

As further background to what governments can do to facilitate economic development, it is useful to repeat the text and findings of a report completed four years ago for USAID in Jordan that explored international experience in local economic development.¹⁵ The intention of the report was to explain measures, other than fiscal incentives, that could be used to develop low-income, high-unemployment areas of Jordan.

Local economic development in this context is defined as the enhancement of the business environment and industrial investment climate needed to make long-term improvements in living conditions and provide jobs and income opportunities to the less-developed areas of the country by attracting investments and creating business activity.¹⁶ Local economic development is thus accomplished through the coordinated effort of private businesses in partnership with national and local entities in promoting initiatives to improve the conditions for citizens of the less-developed areas.

EXPERIENCE WITH LOCAL ECONOMIC DEVELOPMENT

After more than half a century's experiments around the world, a fundamental change is occurring in thinking concerning government policies towards local economic development. (OECD, 2003). With the strong motivation coming from alleviating regional disparities, helping the poor, and integrating a nation's economy, governments in many countries, developed or under developed, have tried various policy instruments to reduce such regional disparities. However, a blunt assessment of these experiments, based on an empirical study of eight industrial and 18 non-industrial countries, is that "local economic development policies have failed in almost all countries – federal and unitary alike – to reduce regional inequalities."¹⁷

What went wrong? The problem lay in thinking about what government can and cannot do.

First, regional disparity in most cases is a combined result of historical evolution (e.g., the uneven process of industrialization), inequality in natural resources, differences in institutional settings (e.g. East and West Germany after reunification), and cultural and mental differences (e.g., urban vs. rural sectors). These sources of regional disparity often cannot be changed at the rapid pace desired by governments.

Second, local economic integration seldom took the route desired by the government – a flow of resources from richer regions to poorer ones. The trend is often the opposite – a flow of resources from poorer regions to the richer ones, which is not necessarily bad, but does seem to some to constitute a waste of government funds and endeavors on the redistribution front.

Finally, past local economic development policies have proven incompatible with the emerging trend of globalization, which is characterized by the "increased movements of goods, capital, labor and ideas, in the context of rapid shift of tastes and demographic changes." (OECD, 2003) This unprecedented mobility of almost all products and services

¹⁵ Overview of Non-fiscal Measures to Attract Investment, Gabi Afram, Amal Al-Nashef, Rana Dababneh (Al-Jidara), Duanjie Chen, Eugene Reilly (The Services Group), AMIR Program, April 2005, pages 5-15.

¹⁶ Roughly speaking, this broad definition covers most of the country's areas which are far from the population and economic activity centers of Amman and Zarqa, which together account for more than two-thirds of the country's population and approximately 80 percent of its gross domestic product.

¹⁷ Shankar, Raja, and Anwar Shah (2003), "Bridging the Economic Divide Within Countries: A Scorecard on the Performance of Regional Policies in Reducing Regional Income Disparities," in *World Development*, Vol. 31, Issue 8, August 2003, pp. 1421-1441.

and their inputs augmented “both opportunities and risks of regions by allowing them – and their competitors – to reach out to external resources and markets” (OECD, 2003). As a result, a strategy of local economic development by promoting the integration of regions into the global economy has become more appropriate than the outdated strategy of bringing all regions into an integrated national economy.

As a result of such rethinking, policy makers in many countries are now taking a different approach, by talking more about “agglomeration economies” instead of “integrated economies,” and more about local competitiveness instead of local equalization.¹⁸ “Agglomeration economies” refers to a situation where enterprises or activities derive cost-saving benefits by locating near each other as clusters, while “integrated economies” refers to a situation where different sectors of an economy (e.g., agricultural and industrial sectors) work together efficiently and are interdependent.

Box A: New Zealand’s New Policy Focus and Local Partnerships Program

Local economic development policies and programs have been a feature of New Zealand’s central government public policy environment since 1999, with a strong policy focus on partnership between central government and regions and on locally-driven, broad-based economic development. This policy focus steers away from inter-regional transfer policies or large-scale investment incentives to focus instead on identifying local specialization, fostering local innovation, developing local capability, and strengthening local institutions, including co-ordination between stakeholders.

In the New Zealand context, policies that encourage agglomeration of economic activity and greater specialization may be particularly important, given the country’s size and distance from major markets, the large number of very small firms and local government units, and the associated difficulties with sustaining critical mass in industries and institutions. It will often be necessary for groups of firms, supported by public sector institutions, to work together to access export markets.

Similarly, neighboring regions and districts may benefit from collaboration, joint initiatives, and resource sharing. The primary concern of policy makers, therefore, has been with levels of institutional support and inter-firm collaboration, the strength of a consensus on a common purpose, and with structures that encourage innovation, skills, and knowledge transfer.

To enhance local initiatives and build local capability and institutions for economic development, economic development partnership groups have been formed in 26 New Zealand regions. In addition, capability building and the development of major local initiatives aligned with a region’s area of specialization are under way.

Source: See footnote 40, Overview of Non-Fiscal Incentives, AMIR 2005, Box 2.2 page 9.

In today’s global economy, most competitive economies are often characterized by their greater level of agglomeration, such as India’s emergence as an outsourcing destination for major international software producers and financial services providers (e.g., large banks). By contrast, countries that are still pursuing inward, national economic integration are often left behind. Of course, this rethinking does not mean a conflict between “agglomeration economies” and “integrated economies,” between “local competitiveness” and “local

¹⁸ According to the *MIT Dictionary of Modern Economics*, the definition of “agglomeration economies” is the following: “Cost savings in an economic activity which result from enterprises or activities locating near one another. Examples of such savings include the clustering of retail establishments which permits consumers to make price comparisons without multiple journeys, the efficient use of information where contact between buyers and sellers is facilitated, the spreading of costs of public services and the development of specialized input suppliers serving a number of consumers in the surrounding area. In the last case, cost reductions arise through economies of scale and specialization in the supplying firms, thus they are said to be internal to these firms. Agglomeration economies are an example of external economies where one firm’s activities confer benefits on other firms.”

equalization.” It simply suggests that a broader stage of economic integration (i.e., from a national to a global stage) through agglomeration economies is a more efficient way of promoting local economic development within a country.

Box B: Local Innovation, Industry Clusters, and Rural Development

Research indicates that one major difference in local economic performance lies in their capacity to innovate – to transfer new ideas and knowledge into high-quality products or services. Innovation is a driver of competitiveness, and vice versa. It is vitally important to understand that innovative activity is not limited to “high-tech” sectors.

The capacity for local innovation is often driven by industry “clusters” – broad networks of companies, suppliers, service firms, academic institutions, and organizations in related industries that together bring new products or services to market with a great advantage of cost-saving through minimized distance between each other.

Furthermore, clusters regularly cross over traditional rural-urban boundaries. Therefore, developing strategies for rural areas need to be designed around “local hubs” and “rural spokes.” Every rural region needs a local hub to connect to, and the connections to the hub are critical. As a result, policy makers need to move away from thinking about purely “rural strategies” and focus on the economic regions in which entire competitive clusters are found and rural activities are linked to urban centers of economic activity.

Source: See footnote 40, Overview of Non-Fiscal Incentives, AMIR 2005, Box 2.3 page 9.

An outcome is that, in replacing the various, conventional, locally-targeted fiscal incentives or financial infusion, a popular approach is to bring together all the stakeholders – government and private – to exploit agglomerations by making full use of local immobile resources, accelerating innovation, and encouraging local competitiveness on a global stage.

The implication of this policy switch is that local economic-development policy should encourage agglomeration by aiming at areas with high growth potential rather than those with little unused resources. This is not to say that the policy direction in helping the poor is wrong, but the question is what kind of policy actually works. Facing the intensified challenge of this question, policy makers are increasingly linking together local innovation, industry clusters, and rural development.

What does a government need to do to accommodate agglomeration economies, related urbanization, and rural development? There is no doubt that provision of infrastructure is crucial as labor migration requires housing, transportation, public utilities, medical services, education system, and more. Above all, perhaps, institutional support and strategic planning are important for cultivating economic dynamics, which are keys for sustainable growth and development.

What, then, are the main elements of institutional support? And what level of strategic planning should a government have in mind?

Besides a pro-business government leadership that provides stable social and political environment including a sound legal system, the main elements of institutional support for a business-friendly environment may include the following: a close cooperation between government and business sector, an effective coordination within the government, and a sound tax system.

PRELIMINARY THOUGHTS FOR JORDAN

Based on the above analysis, we present suggestions as to what Jordanian policymakers may consider doing to attract increased capital investment and promote local economic development in Jordan.

DIRECT GOVERNMENT INVESTMENT IN INFRASTRUCTURE

Ranging from basic infrastructure (e.g., roads, public utilities, and communication systems) to more sophisticated public goods (e.g., education, training, medical services, research and development facilities)

In cases where basic infrastructure is already in place, available funds for future government investment might be planned with an eye to catalyzing agglomeration economies. Geographic areas for such investment should be chosen based on their resources and hence growth potential. These resources include closeness to ports, universities, tourism destinations, and potential markets.

DIRECT GOVERNMENT FUNDING

Including both grants and loans

We have no strong preference for this instrument out of concerns for the cons presented in the previous section. However, if funding is readily available, priority might be given to helping start-up businesses with strong entrepreneurship and innovative ideas.

INDIRECT GOVERNMENT FUNDING

Including funding through commercial banks with government-subsidized, low interest and government loan guarantees

Government should initiate a partnership with the banking system to make such funding a norm in the country. Enterprises seeking such loans are often those with a high probability to succeed based on a solid feasibility study and hence deserve the government's support. The choice between government-guaranteed loans and government-subsidized, low-interest loans should be based on minimizing the risk to government.

INSTITUTIONAL SUPPORT

Consisting principally of pro-business government leadership that provides stable social and political environment, including a sound legal system

In a fast-paced business world, the agenda for government to provide adequate institutional support will be always full. Our list of potential support measures below is neither exhaustive nor prioritized. It is simply meant to illustrate those measures that policymakers may consider.

Government might build close partnerships with the business sector for strategic planning and problem-solving. "Jordan Vision 2020" is an example of such a partnership. Critical to such efforts is the regular appraisal of what has been accomplished and what needs to be pursued further. Only solid implementation of a shared vision will strengthen such partnerships.

Government might take steps to plan strategically and to promote agglomeration economies with innovative ideas and within Jordan's unique local context. Thus, ideas contributed by various parties in the past envisaging Jordan as a center in the region that provides high value-added services, ranging from educational, medical, training, high-tech, and professional (e.g., legal, accounting, urban planning), might be further explored through feasibility studies. Some of these ideas might be implemented, if they are proven feasible.

Government might make staff training a part of its regular business, with the objectives of "skill upgrading" and "mental modernization." The content of this regular training includes

how to coordinate within government both horizontally and vertically, as well as how to deal with the enterprise sector on specific issues. This type of regular training is crucial to ensure the efficiency and effectiveness of a pro-business government.

EXTRACT FROM CHAPTER FOUR: RELEVANT JORDANIAN EXPERIENCE

(pages 53-55 of main report)

...To solicit views on the current investment climate in Jordan, officers at the JIEC Investment Services Bureau (ISB) and investors from various public and private industrial estates were interviewed as part of the research undertaken for this report. (See Annex 6 for further information.). An ISB officer reported that site visits to industrial estates located close to Amman or to its north usually lead the investor to prefer the establishment of his investment in the location where he visualizes business movements through trucks and similar forms of transportation, rather than investing in the southern part of the country that is semi-deserted and rural. Others reported that the dismal performance of Al Karak is due to the lack of sufficient and adequate marketing and promotional planning, especially during the last couple of years. Recently the ISB of the JIEC developed a marketing strategy that reportedly will improve the performance of its affiliated industrial estates, especially the one located at Al Karak.

In the case of Al Karak Industrial Estate, although the investors interviewed stated Zone C tax exemptions as being important in their decision to invest in that location, they placed greater weight on a number of issues related mainly to the quality of the local workforce and estate management. More specifically, they viewed the poor work ethic of the local workforce as an impediment to fully capitalize on the tax exemptions granted. There was a general consensus that a tax exemption would rank inferior to other key success factors such as quality of infrastructure, industrial estate management support and professionalism, and industrial work ethic by the locals that was reported to be of higher significance than technical competence.

In contrast, there was a general consensus amongst investors in other industrial estates that, if they ever considered investing in less developed areas such as Al Karak and Ma'an, fiscal incentives would be considered insufficient as investment decision factors if not coupled with quality physical infrastructure in terms of road networks, transportation facilities, and other utilities. Investors also stressed the importance of an adequate business support infrastructure in terms of availability of governmental representatives (from Ministry of Industry & Trade, Ministry of Labor, and Jordan Customs Department). Additionally, investors voiced significant concerns about labor and discussed this issue at great length. Moreover, investors stated that they fear the tribal spirit of the local population at Al Karak, and that "they have an agrarian way of living and do not appreciate, nor they have the minimum requirements, to be engaged in an industrial lifestyle that is required at the industrial estates." A common phrase encountered was: "We are already suffering from laborers and their bad work behavior from absenteeism to passiveness in Amman. Imagine how it would be in Al Karak!"

In summary, survey results indicate that investors would consider Al Karak or any other less developed area as a possible investment destination if the following conditions were met:

- Labor laws and regulations regarding foreign workers are facilitated.
- Industrial-friendly and competent and supporting infrastructure exist.
- All facilities and services available in Amman (governmental offices including customs, banks, transportation, easy logistics, and the like) are also available in Al Karak.
- Administrative and procedural issues are handled through an effective and supportive management.

- Some existing or possible investments exist that provide backward and forward linkages to the project.
- The costs of rental and selling of buildings and land are significantly less than industrial estates located in other parts of the country.
- Facilities and utilities are less expensive than in other parts of the country.

Investors in Abdullah II and Al Tajamouat Industrial Estates also voiced concerns about labor issues. They are not content neither with the technical skills of local laborers or with their work ethic. Investors seem to favor local workers if they meet the average standards that any investor requires. However, due to the lack of availability of locals who can satisfy the investors' needs, investors tend to hire foreigners who are more productive and are known to be more responsible than locals. In this regard, most of the investors interviewed reported that the Labor Law is cumbersome and the procedural aspect of it (e.g., visas and work permits required for foreign laborers) is tiring.

Investors that are located close to Amman reported that their main motivation to invest in their current location was the proximity to services and facilities (banks, governmental organizations, and customs office). Furthermore, investors favored Amman because it is an economic hub and logistics are not a problem. Investors also complained about the bureaucracy and red tape of the government procedures and administrative practices. One investor said: "The problem is not in the law as much as it is in the execution of that law; procedural and administrative issues are tiring us." Therefore, it is safe to conclude based on the investors' feedback, that Jordan's various attempts at non-fiscal incentives for regional/rural development have also been largely unsuccessful. Al Karak is stagnant, ASEZ is not yet delivering on its promise...

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