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MANAGING DISTORTIONS IN THE EGYPTIAN SPATIAL SYSTEM: DOES THE CURRENT DEVELOPMENT POLICY PAY OFF?

Tarek Saad Ragab

Professor, Faculty of Engineering Alexandria University, tarekraragb55@gmail.com

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INTRODUCTION

The governmental statement in response to September 2008's disaster of *Al-douwekah*, that disaster which tragically resulted in the death of two hundred and fifty two people and severe injury of five hundred and ten others (Alahram, 2008), reflects the ironic dilemma of Egypt's spatial system deformity. The statement referred to soil saturation with sewer drainage water - in the absence of a sewer network - as the reason why the giant boulders at the top of the middle hill of *Almokatam* mountain, located to the east of old Cairo, split off and avalanched down on hundreds of squatter houses below packed full with rural migrants and urban poor. The statement not only held the casualties responsible for their disastrous loss - referring to their illegal squatting - but blamed them for migrating originally from their villages to Cairo. This attitude reflects a long history of government policy pattern in approaching spatial disparity among other imbalances of the entire spatial system. Currently, almost seventy percent of Cairo's population of 17 million live in informal settlements within the old city center and on the peri urban regions in miserable conditions similar to those of *Al-douwekah* (CAPMAS, 2007). Nonetheless, the number of squatters is growing and their living conditions constantly worsen. As squatters are poor and powerless, they are likely to sustain their condition of misery and marginalization for an unforeseeable future.

However, the initial concern of the government officials and policy makers has not been how to upgrade the substandard livelihood of the poor population majority, as much as how to lessen or, optimistically, reverse their immense inflow to primate urban cores. Unfortunately, even this objective, hoped to be achieved through an aggressively adopted urban policy and tools, is yet out of reach (El-Shakhs, 1971, 1992, 1994). On the contrary, urban growth which develops in core regions at higher rates than those in secondary urban agglomerations is

¹ Professor, Faculty of Engineering Alexandria University.

additionally intensified by inadequate development decisions which have led to a widening spatial disparity gap between rural regions, primacies, and secondary urban agglomerations (El-Shakhs, 1982). Alleviating the built up social tension and frustration generated by expandable spatial disparity, along with the effects of the problems associated with overgrowth of congested urban cores has become the major concern of the successive state governments but wears out their limited financial and managerial capacities, and certainly impedes a steady achievement of the state's long-term development objectives.

A review of the Egyptian development policy paradigm over the last three decades reveals the adoption of a new spatial development option which endorses the construction of new cities and satellite settlements in proximity to traditional urban cores and major cities. This policy pattern was later overlapped by the construction of mega industrial/agricultural projects and their required residential complexes on desert hinterlands far from the traditionally inhabited urban and rural regions of the Nile valley and Delta. The new policy trend replaced a fuzzy form of unsystematic development which focused on the reclamation of nearby desert lands and the construction of industrial centers in proximity to major urban cores. New policy has been marketed on the social level as imperative to effectively decelerating excessive urbanization in two congested primacies, Cairo and Alexandria, with a secondary objective of balancing the national spatial disparity. Although such a development option, which is as politically encoded as it is controversial, is forcefully advocated and adopted by the formal state institutions, indicators of management of the Egyptian spatial system's distortions remain humble and occasionally disappointing, even for the declared purpose of mitigating the intensity of over-urbanization phenomenon.

This essay investigates the multiple causes pertaining to the imbalances of the Egyptian spatial system and the capacity of the new development policy trend to rectify the spatial system deformities. It argues that the current policy approach, frequently resulting in greater dominance of urban cores which continue to gain influence and accumulate wealth and contribute, consequently, to the intensification of urban-rural disparity and spatial system deformation. The research is sectioned into two parts: the first part discusses the major characteristics and forms of spatial system deformity. The second part evaluates the consistency and efficiency of the current spatial development policy. Policy evaluation adopted a bilateral approach of comparing policy development paradigm to the Event-Based Public Development model postulated by Gore & Nicholson (1985) in addition to examining data extracted from three consecutive statistic census results. For the purpose of convenience, *Toushki* mega project was selected for evaluation as a model of the new development policy trend.

SPATIAL SYSTEM AND URBANIZATION PATTERN

Overview

Egypt, while undergoing a stage of economic and social transition, has found that its spatial system is under the influence of unstable agglomeration forces and economies-and-diseconomies that constantly change its spatial interface. There are also three apparent characteristics which have influenced Egypt's spatial system: a) the extensive spatial disparity between the northern and the southern parts of the country; b) the acute unequal population dispersion which is evidenced in population count imbalances between the Nile Valley and Delta, and the country's remaining regions, and in the non-hierarchical city-rank structure of the entire country which display the dominance of the two primacies in terms of allocation of investments and possession of social services; and c) the untamed urbanization growth and population polarization to major urban cores.

Geographically, two natural factors contribute to the imbalances of the spatial system. The river Nile, Egypt's major source of water, flows to the Mediterranean through the narrow valley of which the maximum width is 12 km for about 1200 km, forming Egypt's fertile Delta with a 250 km width. (GOPP, 1991). As agricultural has been Egypt's major economic activity- practically all agricultural activities take place in some 25000 km² (6 million acres) - most cities, and rural areas as well, except for a few of first- nature locations such as Alexandria and Suez Canal cities, were forged along the Nile valley and Delta, leaving vast areas of the country desolate. Due to the scarcity of the manageable water compared to Egypt's area and its speedily grown population, Egypt has built the High Dam on the Nile stream as part of its water security strategy to better manage its limited water share. However, this didn't contribute to rectifying the spatial pattern. Egypt's climatic nature, the second natural factor, has contributed also to spatial system imbalances. Aridity has confined arable land to the banks of the Nile leaving no chance for outward expansion. Additionally, the extremely hot temperature of the southern deserts has expelled the

population who chose to migrate to the richer and cooler northern regions, leading to more unbalanced population dispersal and economic disintegration.

Along with natural factors come the political economy dimensions which influence the country's spatial nature and determine the trends of development policy. Throughout the recent history of Egypt, the political economy dimensions have competed in conservative-radical terms, in state-led versus market-led terms, and in trade restrictions (import substitution) versus open trade (export-led growth) terms. Three major periods have had distinguishing different political economic ideologies interrelated to the state's spatial characteristics. During Mohamed Ali's rule (1805-1848), he realized how he should relocate Egypt's resources to bridge the wide development gap between Egypt and the modern West, and he allocated significant investments for developing agriculture which contributed positively to the state's economic progress. Nevertheless, his "modernization" policy focused on impersonating Western lifestyles and occidental city planning and urban development models. Both trends failed to improve the livelihoods of the majority poor peasants who lived outside glittering look-alike Western cities where only landlords and technocrats reaped the fruits of the resulted economic progress. Mohamed Ali's successors followed his same steps in all but a few details. However, population distribution and the rate of urban growth did not represent a real concern to the system at that time. Throughout the colonial period, in which a pattern of urban development policy was gradually articulated, investments were directed towards the establishment of projects around major cities, where the colonial marshal's headquarters were located¹. Cities along the Suez Canal also had some of the development investments seized, as they signified strategic locations along the Suez Canal which represents a major source of revenue. The Egyptian nationalization period (1952-1974), started with the 23rd of July coup d'etat but witnessed different developmental policies. At the beginning, a new trend surfaced which endeavored to turn Egypt into an industrial country-which was seen as the magic key to modernization and development- at the expense of agriculture development. Many industrial projects were established around Alexandria, Helwan and Shoubra Al Khima to the south and to the north of Cairo, Al Mahala Al Kobra in central Delta, Nagaa Hamady in middle Upper Egypt, and in other spots close to major urban centers which attracted many peasants for better paid industrial jobs. This pattern of public investment formed spatial concentrations to the north around core areas which was the norm until recently, despite meager attempts to distribute investments outside traditional urban centers in the last two decades. These socio-political timeframes have shared a sluggish, inconsistent, or a false paradigm of development, lacked a concrete vision for development, and failed to foresee the future implications of their development policies on the integrity of the national spatial system.

Urban Overgrowth and Polarization to Primacies

Since the beginning of massive and continual rural to urban migration that followed post-World War II, urban growth rates have averaged about one percentage point higher than the rates for rural areas (CAPMAS, 2007). Generally, Egyptian cities and villages have grown at a fast pace, surpassing 800% of their original footprint in 1985 in some areas in 2006 (The World Bank, 2008). The urban population has also been expanding at the rate of 4 percent annually for more than forty years (CAPMAS, 1997). The poor and deprived population in rural areas are constantly pushed to migrate to wealthier cities where they can have access to employment opportunities, better education, and improved health care services. On the other hand, concentration of economic activities operating in and around the two metropolitan agglomerations pulls more migrants and qualifies these two metropolitans to be among the biggest urban concentrations in Africa and the Middle East (Ibrahim, 1987).

Rapid urbanization in major cities, while leads to a higher rate of economic development due to the improved integration of different economic sectors, expands regional disparity, and consequently promotes urban polarization (Richardson, 1989; El-Shakes, 1971; Alonza, 1971; Shishido & Wheaton, 1981; De-Cola, 1994).

Urban polarization, which has been at its peak from the mid 1970s, induces different patterns of urban growth. The dissimilarity of growth patterns and rates between primacies and the remaining cities is so significant that Cairo, for instance, has been luring both rural and *urban* migrants with continually high and incremental rate of urban primacy (UNDP, 2006) ii. The phenomenon is also evident for Alexandria, where primacy rate reached 2.98 % in 1996 (CAPMAS, 1997). These high urban primacy indexes suggest variation to the primacy pattern of Western countries in their early stages of development. As for developing countries, the lack of financial resources and incapacity to develop transportation and communication networks often direct urban growth towards wealthier, better connected regions, with no expected pattern change. In many instances, nevertheless, governments were eager to reverse the polarization pattern to the degree that they initiated industrial/urban growth poles to compete with urban core regions in luring migration flows. Venezuela (Friedmann, 1969), Tanzania (Sawers, 1989), South Africa (Dewar, Todes, and Watson, 1986), Thailand (Sternstein, 1979), Egypt (Stewart,

1996), Mexico (Barkin, 1975), and Peru (Jameson, 1979), each had one or several of these growth poles, most of which stumbled because they failed to attract the quantity or quality of migrants intended.

The introduction of push and pull factors by Lee (1966) has contributed to the interpretation of the migratory influencing forces that have been driving migration flows since the 1950s in developing countries. Along with other factors, rural poverty has pushed migrants out while higher incomes and social amenities associated with the primate cities have lured them in. However, there is some evidence that urban primacy decline did begin prior to 1980 in some developing countries although government programs that targeted urban primacy were indecisive (Wong, 2006). Vining (1986) found that five advanced developing countries, Greece, Ireland, Spain, Argentina, and Venezuela, experienced a significant decline in rate of net migration to the core region in the 1970s, while further evidence from MacKellar and Vining (1995) revealed that negative net migration to the core was observed in Mexico, Cuba, Brazil, and Venezuela. Villa and Rodriguez (1996) found that 12 of the 14 largest primate cities in Latin America had experienced a decline in the level of primacy between 1970 and 1980.

Building on the assumption postulated by Mehta (1964), Wheaton and Shishido (1981), and El-Shakhs (1971) that correlates the initiation of urban polarization reversal to the country's progress through economic development, polarization decline and/or reversal initiation, is likely to take considerable time considering the sluggish and fluctuating rate of economic development and the inequitable means by which development revenues are distributed in the community groups. (El-Shakhs 1971, 1992, 1994; Yousry & Aboulatta, 2002). The concept of relating the decline in urban polarization pace to the transition of the country to the next phase of economic development is consistent with Egypt's inability to sensibly develop its economy in the last 30 years and to distribute development revenues fairly among the population. The growth in GDP per capita,¹¹ has been wiped out by the vast income inequality between the rich and the poor. In contrast with the government allegations, the fruits of development have not been absorbed by the high pace of population growth, but mainly channeled to a minor group of tycoons who accumulated more wealth and seized more political power (Ragab, 2007).

This explanation of urban polarization forces and dynamics in Egypt acquires more credibility than the one proposed by literature, which ignores the interrelation of urban polarization intensity and the stage of economic development. These differences raise doubts of success in imposing some Western models of urban development on developing countries. Additional factors are the weak and inconsistent approaches and methodologies of the applied development plans, and the historical influence of colonial policies on the pattern of spatial system, which were not experienced in Western countries within their transition period.

High demand for housing and urban land due to over urbanization has produced an extensive form of informal housing in all Egyptian cities. In 2006, informal settlements represented almost 40% of Egypt's total urban population, accounting for 16.7 million inhabitants living in about 8.9 million housing units (CAPMAS, 2007). The majority of these settlements encroached illegally on agricultural land. While formal settlements have access to education and health services as well as to clean water and sanitation, many of the informal settlements, slum pockets that grew in the old urban fabric in particular, suffer from a high unemployment rate, safety problems, domestic violence, and the lack of all basic services and amenities.

On the other hand, the impact of over urbanization is additionally intensified by the institutional weakness of land management bodies at all levels of administration. These institutions neither provided urban land for development in terms of managing planning plots, securing legal tenures, and constructing basic infrastructures-and-services, nor implemented procedural, transactional, and operational urban jobs. The institutional vulnerability hampered government's capacity to keep pace with the incremental magnitude of over urbanization-related problems or to sustain minimum standards of urban job performance. Nevertheless, the imperative need for expanding institutional capacities to efficiently manage massive and incremental demand for land and services, later gained priority on the authority's agenda. The results, consequently, are indicators that are linked, partially or totally, to management incapacity: the proliferation of illegal housing settlements and accompanying substandard living conditions, the unjustifiable overspending, the insignificant cost recovery and cost effectiveness of development activities, and the poor exploitation of the limited available resources.

City rank and population density-development rank

Beside the high primacy indexes of Cairo and Alexandria that have been mentioned earlier, there are substantial imbalances in the city rank system and in interrelated population densities in almost every city. Many have much less population than others at the same rank size, and all experience, except for some newly established cities, imbalances in population densities all over their districts. For instance, the city of 6th of October comprises 1.1

million inhabitants while Borg Alarab city comprises .221 million inhabitants although they both have the same rank. As for population density, the *Hai* (neighborhood) of Albasateen and Dar Elsalam of Cairo had 719,800 inhabitants in 2007 whereas hai Almusky, also in Cairo, had only 30,800 inhabitants although they have the same area, displaying unbalanced urban hierarchy (CAMPAS, 2007).

Analysis of the current pattern of demographic indicators based on the administrative skeleton^{lv} shows the acquisition of governorate capitals on the highest human development rank, separated by a considerable distance from the remaining of their marakez and cities/ This Prime City Effect phenomenon is caused by the concentration of economic, social, and service activities in those cities resulting in greater progress and development in the prime city than in the remaining governorate cities. Also, there is a wide spectrum of densities within the administrative boundaries of each governorate (CAPMAS, 2007).

Urban/Development Policy

Development can be pursued under the pressure of solving persisting problems or simply by the human need for sustainable improvement of livelihood. This pressure has been built-up by economic, political, and demographic factors. The substandard conditions and escalating lack in housing commodity, population concentration and associated problems of overgrowth have put pressure on urban development. Additionally, the agricultural food consumption- production gap and the high rate of unemployment, which necessitates the generation of more labor intensive jobs, create development pressure for agricultural expansion and agriculture based industrial establishments. In most developing countries, where the state central government undertakes the major responsibility of development decisions, it chooses to respond or not to respond to the development pressure and decides upon what policy type and tools it should adopt.

Egypt's development policies within the last four decades have been many and varied, taking contrasting positions, and having varied results. Like many of the prevailing policies in developing countries in the 1960s and 1970s, development decisions were frequently biased to favor urban development, with consequent disadvantages to farmers and rural communities. These urban biased policies contained a sub-theory of economic development and an explanation for retarded growth and poverty. Starting from 1974 after the signing of the peace treaty with Israel, multi-lateral aid agencies such as the World Bank, and some bilateral agencies started to aid Egypt's plans of development through mid-and long terms loans and grants but reacted to the notions of urban bias and urban overdevelopment. Bilateral agencies sometimes responded in a counter 'urban bias' way, providing funding and technical assistance to agriculture and rural development. In contrast to bilateral agencies, the World Bank became increasingly active in urban loan programs but was also circumspect regarding Egypt's import substitution and protectionist economic policies. The World Bank had commenced urban and housing loan programs in 1976, but it was not until 1988 that many bilateral agencies took a more positive attitude to urbanization (Harris, 1992). The changed attitude to urbanization reflected a growing realization that accelerated economic development was linked to urban economic development; the volume of urban poverty would exceed rural poverty in the early 21 st century, and urban environmental conditions would add urban policy significance.

The state's urban-biased policy which was interpreted in the pattern of capital investment concentration in and around primacies and major urban agglomerations could be linked to two factors: the political pressure practiced on decision- makers by wealthy elites and technocrats, and the tendency of the ruling regime to favor this influential community group who came into the political arena by the new market- led economy, privatization policy, and the powerful economic role granted to the private sector during Al-Sadat's ruling period (1970-1981). Along with these two factors comes the fact that social benefits and services in cities could be achieved with a lower cost than the cost needed in rural areas and accordingly, the government is tempted by the ease with which to gain faster and cheaper social support and momentum for regime continuity by those who live in urban cores in return for its biased urban policy. The data are sparse and not always reliable, but access to services and employment opportunities is often stronger in major cities than in secondary cities and rural areas. These benefits, however, do not extend to the poorest groups within the city limits who usually resort to the informal and illegal measures of survival like those of Al-douwekah slum settlement.

Generally, the national development policy has been based, more or less, on "tackling the most persistent problem" strategy rather than on long term strategic planning. The state capacity to formulate development objectives, national urban policy, and structuring a mechanism for policy assessment and readjustment has encountered the state government's lack of commitment towards development which is strongly interrelated to the type of ruling regime. The jurisdictional powers granted to actors of the eve" ctional authority, the nature of the decision-

making mechanism, and the balance of powers acquired by different community groups all affect the state's capacity to sustain efficient spatial development (Brown, 1991; Goldstein, 1993; Stewart, 1996). Democratic regimes tend to arrange local and national priorities, including developmental objectives and policy, according to the best interest of all different community groups aiming at filling the community needs gap and achieving social equity. In contrast, non-democratic regimes, such as those of Egypt and many developing countries, may tend to protect their regimes' dominance or patronize privileged community groups by taking biased or indecisive development decisions in spite of their infeasibility, inconsistency or their detrimental implications on the accomplishment of development objectives. In the latter political regime class, multiple community actors' roles are abridged to be played only by the head of state and a few top officials. Hence, criticism or attempts to delineate alternative courses of policy action by community members who are outside the decision makers' inner circle, will be deemed as unaccepted opposition. Consequently, policy monitoring, reassessment, and readjustment are either diminished or overlooked which definitely increases the chances of policy failure.

Mega projects program

Since the mid 90s, a new development policy trend has protracted investment priorities with macroeconomic development. However, the unfettered role of market processes has produced a vast, but widely chaotic, pattern of urban development. The development policy depended on the establishment of mega agricultural-industrial projects in desolate and scattered locations. Projects are categorized geographically into two groups. The first is located to the south of the country and comprises projects: "Toshki"vl, "East of Awaynate", "Darb Alarbaeen", "Assyout Valley", "Abou Tartour", "Aswan ironing complex", and "Nasser lake Development". The second is located to the north east of the Delta basin and comprises projects: "West Suez Gulf", "Shark Al Tafreea", "Technology Valley", and "Alsalam Canal".

With an absence of sound transportation systems linking these projects to older urban centers, they provoked considerable doubts about their feasibility. The State incubation of project-model development was meant to encourage private local and foreign investments to contribute to the national development process which could expand to lagging regions and lessen the burden on the state resources. Projects were assumed to generate strong pulling forces, building on a migration gravity model, by providing job opportunities that were attractive enough to switch the migrants' traditional destination preferences. It was also predicted that inhabitants would gradually create market demand for services and other commodities that would, in turn, form economic agglomerations and generate more jobs which would attract other migrants and the process would then become self-sustained.

DOES THE CURRENT URBAN DEVELOPMENT POLICY PAY-OFF? POLICY ASSESSMENT

Methods of policy assessment vary considerably. However, some scholars, Kaplow and Shavell (2004) for example, claim that any method of assessment that is not purely welfarist violates the Pareto principle (Stewart, 1996). Kaplow and Shavell use the term "welfarism" to describe notions of social welfare "under which assessment of policies depends exclusively on their effects on individuals' utilities" (Kaplow & Shavell, 2004). Building on this notion, observing divergence, or consistency in interrelated system patterns, demographic indicators and trends in particular, can construct a viable evaluation for the development policy capacity to accomplish short, medium, and long term objectives (Wong, 2006).

However, observing system pattern in Egypt's case is somehow questionable as doubts of data accuracy is often surfaced. Census data carried out at in 1986, 1996, and 2006 are used to detect divergences and consistencies in demographic and spatial patterns as indicators for policy efficiency. The revision of the 2006 census data and a comparison with previous census data of 1996 and 1986 reveals some important facts. First, numbers of population growth continued to display escalation in primacies; Population in the governorates comprises primacies which witnessed an increase in the ten year period (1996-2006): Alexandria 23.09 % (from 3339076 in 1996 to 4110015 in 2006) and Cairo and Gi/a 22.9 % (from 12836306 in 1996 to 16889877 in 2006). Second, the population density average continued also to be recorded as high as 26,000 people per square kilometer in Cairo and in some of the more crowded quarters of the city such as Rowd al Farag as high as 135,000 per square kilometer while in Alexandria it reached 122,000 people per square meter (CAPMAS, 2007). Third, the pattern of informal housing also sustained its normality of intensive proliferation: Greater Cairo Region comprised 81 informal squatters, most of them have grown on agro-land, and few on desert land in 2006.

Additionally, an estimated one million people continued to live in the mausoleums of the historical city's cemetery of Cairo.

Generally, indicators point to the sustainability of the high primacy index and primacy ratio which demonstrate a long lasting and consistent high rate of urban growth in primacies, in spite of some evidence of population relocation associated with the state's policy trend. Population density and concentration variations between core regions, secondary agglomerations, rural areas, and desert still point to a severe distortion pattern of population dispersal.

Another policy assessment method is the comparison with the theoretically established models of public development. Assumedly, intersections and consistencies with the theoretical models draw a notion for the policy effectiveness and chances of policy success. For the sake of simplification, a comparison with the Event-Based Model, postulated by Gore & Nicholson (1985), is used to compare with the Egyptian developmental policy paradigm taking Toshki project as an example. Areas used for comparison are the development paradigm's feasibility and compatibility, the physical condition of the location of the development, the public procedures and decision making mechanism and nature, and the characteristics of ownership. These areas supposedly cover major aspects of the development model as described by Gore and Nicholson.

Feasibility

There is little evidence of proven feasibility and viability in meeting monetary and non monetary objectives that could be referred to as a lack of knowledge, consciously or unconsciously, of some facts associated with development projects. Also, there was a failure to approach and test feasibility and viability in any way and through any stage of the development process. It is obvious that development decisions, which are fundamentally interlinked to the conclusion of whether expected revenues are likely to exceed expected costs enough to produce the desired profit, have not followed this course of action. None of the multiple methods of feasibility assessment, such as Multi Criteria Assessment (MCA) or the rigid Cost Benefit Analysis (CBA) have been used to aid the process of making development decisions; accordingly, expected revenues depended on "wishes" more than concrete calculus. On the other hand, the expensive bills of development projects, along with the huge investments in primacies, continue to seize a major portion of the state's annual budget devoted to investment in infrastructure, social services, and urban projects for the whole country.

Macro economy -public development compatibility

The fact that spatial equilibrium is the end result of the multitude of interactions between the macroeconomic policy and the adopted spatial development policy, policy regime (where macroeconomic policy and urban development policy are only elements in the set of government policies), and the structure and capacity of institutions raise complications in evaluating the actual consistency of the development paradigm with the state macroeconomic framework. At one extreme, there is the possibility that an inconsistent or incompatible development policy, rather than weakness in institutional capacity, is mainly responsible for macroeconomic crises. At the other extreme, a properly designed development policy can be seriously undermined by a weak and ineffectual economic policy and both components tend to be mutually reinforcing.

One avenue of consistency is to approach development, in terms of selecting policy tools, options, and methods of implementation that are related to cost in a way that doesn't disrupt the state's economic plans and its capability to achieve economic objectives, in another term, adopt development policy that coincides with trends and capacity of the macroeconomic framework. To examine this notion, first, a revision of the situation with regards to the macro-economic trends and indicators for the last 10 years in Egypt is undertaken hereafter.

In Fiscal Year 1988, the total revenues of the government were EGP 89.1 billion and reached almost EGP184.7bn in FY2008. Much of the increase came from a rise in tax revenues, particularly personal income and corporate taxes which constituted the bulk of total domestic taxes due to recent tax reforms. Revenues, however, have remained more or less constant (about 21%) as a percentage of the GDP over the past few years. On the expenditure side, strong expenditure growth has remained a main feature of the budget. Importantly, there has been a dramatic increase in domestic debt which is projected to be roughly 62% of GDP in FY 2002 up from 58.4% in FY 1988, including the cost of food and energy subsidies, which rose from EGP18.0 billion in FY2002 to EGP64.5 billion in FY2008. The overall deficit, after adjusting for net acquisition of financial assets, remains almost unchanged from the cash deficit.

The budget's overall deficit of EGP 43.8 billion or -10.2% of GDP for FY 1998 has become 49.2 billion in FY2007, so that is narrowed to -6.7% of GDP. The deficit is financed largely by domestic borrowing and revenue from privatization sales, which became a standard accounting practice in the Egyptian budget. More recently, the fiscal conduct of the government was under strong criticism and the subject of heated debate and discussions in the Egyptian Parliament. In particular, reference was made to weak governance and management, especially for extra expensive development projects (Abou Tartour and Toshki in particular), loose implementation of tax collection procedures and penalties for offenders, and improper accounting of the overall system of basic subsidies and domestic debt, leading to domestic market disruptions, high inflation, increased inefficiencies and waste in the domestic economy.

The gross external debt of Egypt, including the total public and private debt owed to non-residents repayable in foreign currency, goods, or services —based on the Ministry of Finance, the Central Bank of Egypt and The World Factbook—is estimated at US\$29,898 million at the end of FY 2007 (Table 1).

Table 1: Egypt's Summary of External Debt 2001-2007 (Millions of USD and Fiscal years).

| Item | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|------------------------|--------|--------|--------|--------|--------|--------|--------|
| External Debt ((USD m) | 18,613 | 17,488 | 25,925 | 26,812 | 28,949 | 29,593 | 29,898 |
| External Debt (% GDP) | 23.3% | 20.8% | 38.2% | 33.9% | 30.9% | 27.4% | 22.9% |

The project's primarily economic studies have recognized that such macroeconomic characteristics, as indicators for the state economic capacity to undertake development projects, do not coincide with the high cost of the Tushki project. It was noted also in the case of project implementation, that financing project would delay other development plans and produce hardships in financing the project's multiple phases. To overcome the lack of funds, the state government had sought various sources of funding. While the small short-term finance needed during primary works and mobilization was easily secured through internal resources, extensive long-term finance needed further capital from external sources. To induce capital pooling, the government introduced attractive tax exemptions among packages of other incentive privileges for foreign investors and international contributors, but failed to secure the sufficient capital needed. Lack of adequate finance has resulted in a failure to secure constant construction progress. Projects completed for the available limited funds from the state's resources thus depended on inclusion within the state's capital program, of which spending priorities have been determined not by a market-led approach to viability but by political assessments of need. As the construction of projects developed, it was clear that the market had moved into deep recession, of which Egypt's nascent economy would need extended time to recover (Abdelsalam, 2002).

Ownership

Designating state owned isolated deserts or wetlands for development has secured land tenures with neither ownership costs, disputes with absentee owners, passive ownerships, nor compulsory purchasing actions. However, the integrity of the project ownerships was always questioned. The desert farm lands were restricted to a limited group of elites who were selected very carefully from the inner circle of the ruling party. Properties were later sold at cut rate prices but with a stipulation of purchasing large land lots. While securing legal ownership has contributed to attracting few big-capital companies and individual rich investors, the minimum land area conditions have excluded the medium and low income population—originally targeted by the development model— from the project's land market. The sense of insecurity and instability has, therefore, dominated all job seekers and potential land owners who have looked for jobs in the project. For this reasons all of them thought of their jobs as "temporary" and eventually they went back to their original home regions or migrated afterward to Cairo or Alexandria.

Institutional capacity and public procedures

The importance of consistency of both aspects which constitute the policy regime —namely policy design and policy implementation— is central to policy success. While technical capacity is critical in devising a compatible set of policies, institutional coordination and credibility are pivotal in policy implementation. There are several factors which establish the notion of a sound institutional capacity for the conduct of development policies. First, the "triumvirate" institutions responsible for development policy, the public, the decision-takers, and planning bodies (and their associated think tanks) should exist, have clear mandates, and perform respective functions properly.

These functions encompass all the processes involved in the formulation and implementation of developmental policies. Second, policy coordination among the triumvirate institutions, as well as with other government agencies responsible for sectoral policies, is important. This is because there is a need to ensure that cross-policy consistency is maintained and various policy conflicts are avoided, or at least minimized, in both the short and long term. Third, the status and credibility of those institutions (and that of the government bureaucracy in general), particularly in terms of their relative autonomy from political interference, are significant in that their capacity to provide professional policy analysis and options for "rational" decision-making should be maximized. The ultimate decision making authority rests, of course, with the legitimate political institutions in a country. Last but not least, fundamental market institutions such as property rights and contract enforcement must exist and function. In the absence or malfunctioning of these enabling conditions, no development policy can perform properly, as the policy transmission mechanisms which are intended to create a certain structure of incentives are blocked or perverted. Institutional constraints to formulating and implementing development policies can be interpreted as the absence or relative malfunctioning of any of the abovementioned factors.

Since the state government (the decision-maker) is the only actor in the development process, Toshki would never have been carried out if it had not obtained strong presidential adoption and support which indicates, as previously mentioned, a drastic political interference in the development decisions. While the law stipulates the Parliament's approval of the national projects, and in contrary to the strong opposition by planning experts and community groups, development endorsement did not represent a problem with the manipulation by the ruling party of the parliament which, by all means, represents a complete absence of public participation in decision making. Approvals for development, public procedures, and legal actions are performed by the Cabinet's different bodies upon the approval. According to the political nature of each development project and the power of the presidential support, legal requirements can be easily waived to let the project proceed or bring the project to a complete halt.

Physical conditions

One of the most controversial issues in Toshki is the suitability of the site's physical conditions for the nature and feasibility of such development activity. Site surveys which were undertaken to record ground levels, investigate soil structure, and check for the location suitability for agriculture indicated hardships in providing irrigation water to the site without the reconstruction of expensive pump stations and of open concrete irrigation channels. There were also restrictions preventing the construction of foul or surface water sewers which needed further arrangements and additional cost. The state government advocated the expected high cost that resulted from the physical conditions of the selected site based on the idea that a distinction should be drawn between the existence and the impact of physical constraints, and on the notion that physical constraints do not necessarily prevent development- as they can normally be expressed in terms of extra preparation or construction costs- which may be eligible for a derelict land grant or other public subsidy. Furthermore, the acuteness of the population polarization trend, in addition to the gap of agricultural food production- consumption was politically used to garner some social acceptance for the project's physical hardships. Delays due to severe hot temperatures, regular sand storms, and unexpected soil structure have resulted in additional costs in terms of lost revenues and interest charges on working capital.

Another physical aspect of the development model is the distance between the project location and the inhabited regions with their centers of concentration of activity. While a smaller distance exists between the origin -lower upper Egypt- and the destination -Toushki- than the distance between the origin and preferred migration destination as Cairo- and Alexandria, which suggests stronger attraction forces according to the Zipf's Gravity model, other destination's interrelated conditions intervened negatively to weaken the expected attraction forces. These conditions can be classified into three major factor groups: economic, socio-political, and physical. Economic factors are: a) weak access to employment opportunities in comparison to Cairo and Alexandria, b) high cost of living, c) expensive transportation and communications, and d) the non equivalent salaries all representing weak economic pulling forces. While socio-political pulling forces are generated by a) lower standards of social services and amenities provided in the project and areas existed in the alternative destinations, b) the exclusion of middle and low income group from formal project's land market, and c) lack of public support for the project. The physical pulling forces are embedded in the unbearable harsh environment^{TM1}, and hardships in travelling and commuting to the project are due to poor and insufficient transportation measures.

A POSSIBLE WAY OUT?

Development policy that focuses on developing clusters of activities and adopts modern technology in newly reclaimed desert or desolated hinterlands, but turns a blind eye to the lagging traditional agriculture and industrial sectors in the Nile Delta and valley, creates a two-sided context of the development of the economy. As these subsets never integrate, they act as an impediment to the national development matrix. In this case, economic disparity and poverty are likely to intensify, especially for those who live in rural areas and who are engaged in lagging economic sectors. Highly paid economic activities concentrated in proximity to urban cores and which depend on highly skilled labor and modern technology are far from harmonized with low-paid, intensive, unskilled labor-based activities especially in agriculture sector. This inconsistency maintains the structure of migratory pulling-pushing forces intact. Therefore, allocating investments to produce homogeneous economic subsets remains crucial.

It is already known that a viable tool to activate polarization reversal is to control migratory pulling and pushing forces operating in the spatial setting, but to do so, regional and interregional expansionary forces should be initially operated through an interregional inter-industry/agriculture linkage system which secures harmonization of the incompatible economic subsets. While the study reveals the state government recognition for the need to initiate the process of polarization reversal, it also reveals that the recently adopted policy option- as much as the previous ones- does not influence the migratory pulling and pushing forces. The inexistence of signs of policy reappraisal and readjustment suggests a lack of formal political commitment to development and probably reveals the need for a different spatial policy approach.

Such a new policy approach aims primarily to evenly and gradually balance spatial pattern and population through "actual" investment in secondary urban centers. These centers, which are designated to accommodate more population and urban growth and simultaneously sustain their original residents, can play a central role for economic development if they are permitted to. The development approach focuses on constructing a micro-economic development environment in secondary urban centers by promoting self employment projects and micro-entrepreneurial industries, accessible micro- loans and lending mechanisms, and improved communication and transportation networks and amenities that support this pattern. This, probably, can lessen the intensity of over-urbanization in urban cores without compromising the accomplished rate of economic development. The equilibrium of spatial redistribution and balanced population dispersal permits a grace period from the pressure and associated problems of over urbanization before exhausting the carrying capacity of the secondary and lower-rank urban centers. During such a grace period, it is expected that some of the pressure on urban management institutions is alleviated and consequently allow for better regional management and spatial integration. Promotion of the spatial integration may be extensively targeted through the development of efficient regional connectedness tools such as better and reduced transportation costs that may reduce the total cost of producing and delivering regional products to market, labor, and other production-cost differentials. Having generated these alternative opportunities, the intensity and direction of migratory forces would be reconstructed.

As secondary agglomerations are expected to operate as polycentric nodes for development, they can secure outward expansion on proximate development locations with compatible and coherent economic bases. Economic growth would secure finance for reasonably inexpensive infrastructure and help in the establishment of new markets and demands for commodities. The wealth creating alternative economic opportunities generated would provide a solid base for population stable growth.

Considering the macro level of the economy, cost of resources is considerably lower in those secondary agglomerations than in the newly constructed development locations. Investment in secondary agglomerations in terms of manpower development and new technology employment is often cost effective and has a better cost recovery as there is neither the need to establish basic infrastructure nor invest in mobilizing the population.

As for the social level, such a policy approach would decrease the wide social gap that exists among community groups living in primacies and in other lower-rank cities and rural areas. Upgrading living standards for the underprivileged population would probably enhance population equity and ease escalating social unrest. Spreading these policies over a longer span of time would increase the chances of overcoming the negative implications of the policy on the national rate of development. This approach is assumed to be more tolerated by Egypt's nascent economy and has a direct and faster effect on Egyptians' livelihood.

CONCLUSION

The answer to the question posed on the front pages of this discourse is no, the current development policy in Egypt doesn't pay-off in managing the deformation of the spatial system. Analysis of statistical census results of years 1986, 1996, and 2006 reveals the constancy of the population indicators, migration trends, and urban growth patterns which represent major distortions of the spatial system. This unchangeable situation suggests the incapacity of the spatial development policy to manipulate the current spatial system and trends, specifically the initiation of the polarization-reversal process.

Historical natural factors have been adversely working against constructing a healthily balanced and regionally integrated spatial system in Egypt; the geography of the river Nile and the hot, arid climate nature of Egypt. Along with natural factors comes a group of political-economic dimensions contributing to the same end result; the state's biased pattern of urban development investments, the political atmosphere and ruling regime's lack of commitment towards development, and the state incapacity to manage and maintain development.

Since the current development policy has had an insignificant effect on the urban setting, unfavorable system characteristics are likely not only to continue but also to intensify. These are resulting in a more regional disparity which leads, in turn, to regional diseconomy and disintegration.

Comparing Egypt's development policy paradigm to the theoretically established Event-Based Public Development model indicates general inconsistency except for in the minor area of compatibility. Development policy inefficiency is revealed in the identification of notoriously infeasible goals, and in the lack of mechanism of reassessment and feedback, internal consistency, logical soundness, transparency, and consistency with the national economic objectives and plans. This suggests the inevitability to resort to another less ambitious policy trend that focuses on a priority of developing lagging regions already equipped with basic infrastructure and human resources. This "grace-period" policy approach depends on effective alteration for the migratory pulling and pushing structure to achieve a period of grace that enables the institutional structure to reform and carry out development responsibilities. However, this alternative approach has no chance of success unless it is accompanied by formal commitment to development.

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- i At that time Alexandria was house of cotton stock exchange and setting of western and local wealthy merchants.
 - ii Cairo's population represents 26.2 % of the total urban population (Human Development Report, UNDP Egypt, 2006).
 - iii According to the World Bank Country Classification, Egypt has been promoted from the low income category to lower middle income category.
 - iv Divisions are: Governorate, capital city of Governorate, towns, Marakez (small towns), Ahyaa (plural of hai) defined according to local administration law initiated 1996.
 - v Geographically, Egypt is divided into three major administrative units, 86 Hai, (Kism), 196 Markaz, and 187 city. (Egypt Human Development Report (EHDR). 2008).
 - vi Toshki project, the utmost of a kind, aims at the reclamation of 500 000 feddans vi of desert land in the first phase to be increased to 630 000 feddans in the second phase all irrigated by surfaced water. The project master plan includes the establishment of 18 small towns and 100 villages in addition to multiple agricultural-based industrial projects. A total of 345000 employment opportunity were estimated to be secured and the total investment averaged 300 billion Egyptian pounds (60 billion USD) (Alahram 2008). The agricultural nature of the project was met by acceptance as it was seen a viable tool for alleviating the escalating pressure of agricultural food shortage.
- ™ Summer noon temperature may reach 50 degrees centigrade in shade.