Growth of Urban Peripheries with Reference to Inconsistent Spatial Planning Policies: South-east Amman as case study

Magdy Tewfik Saad¹ and Alia Khalid Amr²

Abstract

The rapid random spatial growth of the urban peripheries of Amman calls for an immediate reconsideration of the enforced planning policies that govern the spatial growth of those settlements. However, an overall assessment of the current planning mechanisms is urgently needed.

The article addresses some spatial factors which are impacting the peripheral growth at the south-eastern edge of Amman. It includes the urban land policies that are generated by Greater Amman Municipality GAM. The adoption of decentralization as a prevailing framework for urban policy in the latter two GAM master plans forms a turning point at the planning level. Such concept has evolved through the application of rigid frameworks that culminated into complex urban superposition.

This study deals with a marginal settlement which lies at the south-eastern edge of the Greater Amman Municipality, i.e. Muwaqqer. The analysis intends to explore how Muwaqqer has expanded randomly, testing in the meantime the relationship between Amman city core and its peripheral settlements both spatially and functionally. Light shall also be shed on the two major master plans of GAM: The Greater Amman Comprehensive and Development Plan (GACDP) of 1986, and the Amman Master Plan: Metropolitan Growth of 2008, tackling their impact on the peripheral district in question.

The study proposes some feasible planning measures to pave the way for better control of the rapid urban growth at the peripheral areas with the aim to mitigate the negative aspects which adversely affecting the urban structure of Amman.

However, the paper also examines the urban transformation of the chosen settlement which further aggravates the multi-jurisdictional divisions that initially meant to sustain an urban uniformity for a modern Amman entity.

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Introduction
The city of Amman is the largest growth center in Jordan and depicts the concept of a “city-state” in many ways. It is surrounded by less advantaged municipalities and villages with variant relationships and strict centralized urban policy.
Recently, the urban structure of Amman has been actively changed. Consequently, the capital city is embarking on a phase of alteration of its spatial structure. Nevertheless, the city edges have negatively impacted Amman at the cultural, social and economic levels. Besides, the most serious change has occurred within the urban structure of the city which has promptly generated concerns about the urban transformation. During the past four decades, the inconsistent concept of city management, which aimed primarily to control the unprecedented urban growth of Amman, has further exacerbated the overall image of the capital’s entity. A variant theoretical definition of the urban planning process for Amman has been repeatedly changed due to some political, economic, and social circumstances. Thus, the determining urban policies have ultimately led to reversal variables of the spatial content including the outcome of the development planning process. Focusing on the urban design of the city core, the redistribution of development measures and their spatial effect on the regional scale have been totally defused.

Urban Policies of Amman: an overview
Abrupt population growth and successive waves of refugee influxes from neighboring countries are among the outstanding forces beyond the recurring changes of spatial planning policies in Jordan. However, the absence of coordination between concerned public authorities often impedes an integrated process of planning in Amman. Other crucial factors such as the lack of consistent laws and bylaws (e.g. Tafweed law, Investment Promotion Law and Jordan Rural Electrification Law) which are supposed to regulate the relationship between the dominating central administrative-based system and the developers have ultimately proved a big failure.
It is worth mentioning that the city of Amman, throughout its relatively short modern history, has witnessed many actions of development plans. Mostly such plans meant to enhance the spatial expansion of the city. The most significant of which were: the comprehensive plan of 1986, and the master plan of 2008. Both plans have developed methodologies for the future urban expansion of Amman.

The Greater Amman Comprehensive Development Plan (GACDP) 1986
The published Main Report, which is considered as a summarized essence of the urban development plan, has indicated the adaption of “Greater Amman” concept bringing, for the first time, a new urban scale which was never known before 1986 (Abu-Dayyeh and Malkawi, 2004). Thus, the city area had expanded overnight from 172 km$^2$ to more than 700 km$^2$. Presumably, this action has foreseen a metropolitan growth that would accommodate a population of 2 million by the year 2005 (GACDP, 1986).

Planning and Management of Urban Growth Policy
The plan of 1986 identified the main corridors for urban development in Amman-Zarqa towards the northeast, Irbid-Salt to the north and Madaba to the south, where the urban growth mostly occur parallel to existing highways (Al-Asad, 2005). At the administrative level, the plan has adopted a two-tier system in order to tighten the grips on the escalating urban development expansion. However, the mechanism of the plan implementation over the annexed zones that should maintain an umbrella for the Greater Amman Municipality have created several challenging obstacles facing the joint planning team.$^3$

$^3$Joint Planning team: Greater Amman Municipality and Dar Al-Handsah Consultants.
The two-tier system has consisted of two administrative levels: the capital level that sizes the central responsibility of controlling the whole urban planning process of Greater Amman Municipality, while the administrative level had a limited mandate over issuing construction permits and implementation of the central planning actions under the auspices of an advisory body which has been supervised by the first administrative level (Figure 1). Such concept of controlled authority has activated a strict centralized policy although in a disguised manner, it has enforced an administrative control on land use through the imposition of GAM approval on all the urban actions within the amended zoning limits of Amman.

![Two-Tier System Diagram](image)

**Figure 1: The Two-Tier System which was adopted by the Greater Amman Municipality (Malkawi, 1996).**

**The Amman Master Plan: Metropolitan Growth 2025**  
The declaration of another GAM administrative expansion in 2008, as part of a national agenda, has resulted in annexing a few neighboring municipalities, i.e. Naour, Sahab, Al-Jiza, Muwaqqer, Marj Al-Hamam, Ohud, Husban and Um Al-Basateen. Thus, the size of GAM gained approximately 62.2% more of its area before expansion. It has, then, been visualized that the metropolitan growth of Amman should accommodate over 6 million citizens by the year 2025. A spatial framework has been set forward to guide the urban planning policies and to control the expected physical growth occurring at the Amman Urban Development Corridors (UDC) on three planning levels:

- Metropolitan level.
- District Planning level.
- Local level.

This Plan has introduced, for the first time, the concept of the “Metropolis” which is based on the intensification and expansion of the existing physical structure in order to ensure a coherence of the Amman's urban structure (GAM, 2008). However, the adapted mechanism which is responsible for translating such concept has not shown any significant difference from those recommendations given earlier in the Greater Amman Comprehensive Development Plan of 1986. It has simply reformulated most of the spatial and administrative strategies that have been previously spelled out in 1986 plan, such as:
• Identifying main growth centers located mostly along the highways.
• Forming a central administrative authority which could organize and control the planning of the whole capital through a clear vision, under one policy.
• Developing the existing physical structure to halt random peripheral growth within the zoning limits of the city in order to preserve the remaining agricultural lands, natural resources, archaeological and heritage sites.
• Enhancing the condition of infrastructure and services.
• Effectuating an integrated national transportation strategy.

It is worth noting, that the Master Plan meant to handle the urban growth until the year 2025 based on three successive scenarios (Figure 2). Even though, the Master Plan has identified an urban envelop which has separated and defined new urban zones designated for future development.

![Intensification within the built-up areas 2008-2013](image1)

![Urban expansion inside the urban envelope 2014-2019](image2)

![Urban growth outside the envelope 2020-2025](image3)

Figure 2: The proposed phases in the Amman Master Plan 2008.

Peripheral Districts within the Master Plans
The inner ring road and the two industrial corridors (Amman-Zarqa and Sahab-Muwaqqer) have maintained a great opportunity for a random sprawl of settlements and peripheral industrial growth around the city edges. The steady expansion of the GAM zoning limits has imposed new facts on the ground, where areas once have been forming an urban edge turned part of the urban fabric of Amman per see, although continued excluded even annexed.

![Peripheral settlements Around GAM boundaries](image4)

Figure 3: The peripheral settlements Around GAM boundaries. (GAM, 2008).
The outer urban settlements have been scattered with neither spatial identity nor specific urban form in terms of spatial structure, especially those peripheral areas at the eastern and northern edges of Amman. Settlements along the ring roads and the industrial corridors remained vulnerable and less developed.

The master plans suggested two Satellite towns on the outskirts of Amman in order to control the ongoing urban growth around the city (Abu-Dayyeh, 2004). However, one can easily observe the critical relationship between the peripheral growth and the highways encircling Amman.

Other intricate issues such as the problematic municipal border demarcation, instable zoning laws and bylaws, conflict of interests among municipal authorities with regards to priority setting, meager financial resources dated back to the 1970s coupled with soaring urban land prices, all of which have theoretically necessitated a comprehensive approach to the development planning of Amman. Adjacent municipalities have often extended zoning limits and changed land titles without necessarily any objective reason, except for satisfying the interests of some influential land owners. Such irresponsible practice caused further fragmentation of the urban fabric of the peripheral districts, let alone resulted in the redundancy of large serviced lands in the zoned areas.

**Top-Down Planning at the City Edges**

Despite of the twenty-two years lag between them, the two above stated master plans have close resemblance in regard to the peripheral settlements around the GAM. The master plans unanimously have adopted similar principles in order to improve the spatial structure and the physical entity of Amman. Apparent similar strategies in the two plans can be summarized as follows:

1. Directing the urban growth towards the east and southeast districts by declaring two subsidiary satellite towns: Sahab to the south-east of Amman and Al-Jiza to the south. The two satellite towns should be linked by an outer ring road (100m wide) encircling the city core reaching Zarqa north-east of Amman (GACDP, 1986).
2. Controlling the spatial growth at the suburban areas and thus preventing further urban expansion. This could be achieved by enhancing the decentralization discourse, controlling the urban policies and directing the spillover towards the proposed satellite towns.
3. Establishing a “Green Belt” around the city center so as to navigate the urban densification processes recurring within the proposed areas.
4. Developing an Urban Corridor (UDC) which was proposed earlier in 1986 by the GACDP aiming at the improvement of the southeastern edge of the capital and connecting in the meantime the industrial areas lying north-east of Amman with the southern regions of Jordan all the way to the Aqaba Special Economic Zone (ASEZA). This attempt has meant to mitigate the dominance of Amman as a sole growth center (GACDP, 1986) and (Abu-Dayyeh, 2004).
5. Curbing the escalating prices of urban land and soaring land speculation at the city edges which has been caused by an inadequate practice of planning, failure to provide urban development alternatives by local municipalities and the paucity of serviced land for future development (GACDP, 1986).
6. Annexing municipalities and villages at the peripheries to Greater Amman Municipality in order to control the future spatial growth and to improve the overall urban structure of Amman.
Brief Assessment of Amman Development Plans: 1986 and 2008

The two master plans have shadowed general administrative visions, especially at the capital level by identifying the same urban developing strategies of controlling the spatial growth. However, the peripheral settlements have been speculated almost in the same manner, including the enforced zoning and building regulations.

One of the main objectives of both master plans has been the decentralization of the central administrative municipal body of GAM. However, the proposed mechanism to implement such decentralization had a two-tier system which has nominally produced an independent administrative sub-center in each district which in turn has been directly linked with the central authority of GAM. Accordingly, this has created a disguised form of centralization, connected politically, administratively and functionally with the top authority. Thus, GAM remained the central director of the urban policies for the peripheral districts. Other identical proposals appeared in both plans are:

- The adoption of ring roads and urban development corridors (UDC) besides the radial arterial roads. However, the master plans had omitted the nature of future urban growth which would accompany opening highways and the associated changes of land use around them. It is noteworthy that the inner ring road area yet suffers chaotic land use changes especially by the establishment of many building material factories adjacent to urban housing.
- The expansion of GAM zoning boundaries by annexing peripheral municipalities such Muwaqqer, Al-Jiza and Sahabhas mainly aimed to impose urban control the overall spatial development and to enhance the deteriorating administrative and economic conditions of those districts. However, after the year 2008, some of the annexed municipalities have claimed independence from GAM for fear of becoming marginal left overs of the capital Amman. In addition, those municipalities do not define themselves as peripheral settlements, on the contrary; they claim capability of urban policy management to ensure integrated spatial planning that could support the urban development of Amman.
- The declaration of the so-called “reserved lands for future development” on the outskirts of Amman in an attempt to establish the Amman Urban Corridor (UDC), although these lands have not been fully under GAM control, in addition to the complexity of the land acquisition procedures and high cost involved. This has led to more uncertainty about the future management of the proposed urban planning and the validity of the Amman (UDC) project.
- Excluding some of the existing peripheral settlements with high population densities from the comprehensive development, while giving priority to other low density one. For example, the plan of 2008 has directed the spatial expansion towards the area of Badr Al-Jadeeda ignoring the Rusaifa district which has high population and possesses economic and spatial values directly to Amman. This proves the failure of the adopted urban policies and lack of planning professionalism.

Looking at the outputs of the two master plans: the GACDP of 1986 and the Amman Master Plan of 2008, it is obvious that the two plans have dealt with the city edges concurrently, directing, however, the spatial growth towards the same peripheral districts, adapting almost the same ring roads and acknowledging the inclusion of the same districts of Sahab and Al-Jiza for the future expansion of industry as part of GAM (Figure 4).
Amman Peripheral Margins: Al-Muwaqqer District

For the very reason of the International Highway (Jordan-Saudi Arabia) that passes through it, the municipality of Muwaqqer is considered one of the most important peripheral settlements lying directly at the south-eastern edge of GAM. Al-Muwaqqer district had remained part of the Greater Amman until it became independent in 2011. Al-Muwaqqer plays a key role both spatially and economically to Amman for the following reasons:

- The future physical expansion of the city of Amman.
- It forms the gate of Amman to the neighboring countries: Saudi Arabia and Iraq.
- Al-Muwaqqer has an economic importance at the national level too. It is a potential industrial center next to the industrial zone of Sahab. Muwaqqer lies on the highway which links outstanding the industrial districts of Zarqa, Sahab with the eastern and southern regions of Jordan all through to the port of Aqaba in the south of Jordan.
Figure 5: Muwaqqer District and Associated Environs
Source: Ministry of Municipal Affairs, 2014.

Figure 6: Location of the International Highway (Jordan-Saudi Arabia)
Passing by Muwaqqer

The zoning limits of Al-Muwaqqer have expanded occasionally. Random urban growth has generally characterized its expansion despite of the relative low population density and the fragmented physical distribution of urban development. However, the international highway which penetrates Muwaqqer plays an essential role for the future growth of the existing human settlements (Figures 5&6).

**Al-Muwaqqer in the GACDP 1986**
In the mid-1980s, the Muwaqqer municipality was identified as marginal settlement with a low demographic growth. In 1986, the Comprehensive Development Plan for Greater Amman (GACDP) revealed some planning strategies to stimulate the spatial growth and urbanization of east Amman. It has proposed the establishment of a satellite town near Sahab in an attempt to find a minor urban industrial center to release the heavy load imposed on the city core.
However, the application of those strategies has been entangled because of the absence of an effective mechanism that regulates the spatial growth of the industrial zones in south-east Amman.

**Al-Muwaqqer in the Amman Master Plan 2008**
The spatial and administrative definitions of Al-Muwaqqer municipality have changed since effectuation of the GACDP of 1986. The district has witnessed a random spatial growth. Unexpectedly, the expansion has been associated with poor physical and administrative transformations during the twenty two years lag between the two master plans.
After the declaration of the adjustment of Amman zoning boundaries in 2008 that included Muwaqqer, the spatial development plan which should have targeted the Muwaqqer district has been frozen until 2014. The postponement has been due to other scheduled municipal priorities, as Al-Muwaqqer then has not been regarded urgent. Despite of such deliberate negligence, recurring random growth has taken place at Muwaqqer. Some amendments of the plan have included the following:
- Intensifying the spatial growth within the built-up areas of Muwaqqar town center in order to reduce its uncontrolled spatial expansion.
- Directing the industrial development towards the proposed industrial zone west of Al-Muwaqqer.
- Improving conditions of the settlements along the industrial corridor (Sahab-Muwaqqer) i.e. the Amman UDC. However, the imperfect implementation of the plan with regards to Al-Muwaqqer has worsened the fragile urban fabric of the district.

The irrelevant urban densification policy has not taken into consideration the existing dispersed individual properties in Muwaqqar. Besides, the Amman Master Plan has not proposed a clear mechanism for the implementation of the urban development at Sahab-Muwaqqar industrial corridor which has gradually become out of control. Scattered industries and random commercial development have mushroomed on both sides of the highway.

**The Current Spatial Structure of Muwaqqar**
Apart from the fast population growth occurring in Muwaqqer, the industrial and commercial developments which have been approved by the urban policy were the main reason beyond the creation of a spatial chaos. The spatial structure can be described briefly as follows:
- The population estimate of Muwaqqar extrapolated from the 2013 census amounts approximately to 39 thousand, with 24370 60%, living in the town center (Department of Statistics, 2013).
- A serious decline in agricultural lands parallel at the expense of rapidly growing industrial and residential uses.
The nearest public transport bus station is located in Sahab that is 11.5 km away from the town center of Muwaqqer. It is the only means of public transport there.

The only public medical center which service Al-Muwaqqer is located almost 13.7 km from the town center, while the nearest hospital is in Sahab.

Lack of bank and ATM services.

Lack of open green spaces, parks, public open spaces and other recreational activities.

### Planning Infractions at Al-Muwaqqar

The existing urban policies governing Muwaqqar have not been able to control the accelerated growth of the local spatial expansion. Sporadic private land ownership and casual changes in land use and plot titling have contributed serious obstacles to the spatial development. The planning infractions at Muwaqqar can be summarized as follows:

- Increasing random urban expansion beyond the approved zoning boundaries has occurred mainly due to private land ownership.
- Continuous amendments of approved plans and changes of land titling which were reserved for social services such as schools, health care centers and public parks have been due to private land ownership.
- The town council members and their relatives always hold the primary power and are thus privileged with municipal services.

### Uncontrollable Spatial Growth in Muwaqqar: causes and factors

The highway and arterial roads have played a key role in the expansion of industrial developments. Other factors that have encouraged the peripheral growth of Muwaqqar can be categorized under two main items:

- Factors that are related to the nature of implicit functional and organizational relationship between Muwaqqar and Amman, and the approved special policies.
- Factors that are related to the existing physical conditions of Muwaqqer and the consequences of the random urban sprawl.

The implications of promoting the above stated factors can be summarized in the ensuing points:

1. The unique nature of tribal land ownership under the title of the Tafweed law (see Tewfik and Amr, 2014).
2. The ring road (Sahab-Muwaqqer-Azraq) is considered the principal eastern gate of Amman.
3. The proposed ring road(100m wide) is located approximately 7.5 km far from the western edge of Al-Muwaqqer.

### Assessment of the Spatial Growth at Muwaqqar

The physical spatial sprawl of Muwaqqer during the period from 1985 until 2013 can be extrapolated from Table 1 below. Thus, it is obvious to trace from the given figures in table 1 that the spatial growth and its directions were characterized as follows:

- **The peripheral growth rate**: an extrusive population and spatial sprawl following the adoption and allocation of industrial development in 2008.
- **The peripheral spatial form**: fragmented, disorganized growth of residential areas around the scattered industrial hub.
- **Direction of the peripheral growth**: the spatial growth has encroached onto three major directions:

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4 Planning criterion recommends a hospital with 100 beds for an urban population of 30 000.
1. North-west of Muwaqqer towards Sahab district.
2. South-west of Muwaqqer towards Al-Jiza where the existing industrial hub encouraged the proliferation of more growth in the nearby areas.
3. The deceleration a spatial growth zone in the northern part.

<table>
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<th>Year</th>
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<th>Occupation License</th>
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<td>15/Km²</td>
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<td>50</td>
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<td>23/Km²</td>
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<td>30.6/Km²</td>
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<td>45.7/Km²</td>
<td>1011</td>
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</tr>
</tbody>
</table>

Table 1: Al-Muwaqqer: population growth, building and occupation license during 1985-2013.
Source: Ministry of Municipal Affairs, 2014

Functional Relationship between Amman and Peripheral Areas
Generally, the functional relationship between the Amman city core and the growing peripheries can be shortly identified in the ensuing features:

- Measuring the spatial correlation intensity between the city core and the outskirt settlements.
- Identifying and measuring the flow of the ensuing variables:

1. Population flow and commuters: movement from the peripheral settlements towards the city core, where such relationship gives a clear indication of the intensity and spatial strength between both as:
   - Commuters flow towards the main urban center referred to as intensity “city core – periphery” relationship. The more the flow increases the stronger the spatial relationship is.
   - Clear indication of “failure – success” of practiced urban policies in achieving self-sufficiency within the urban periphery.

2. Urban services flow: towards the periphery as follows:
   - An inverse relationship can be observed in regard to the bulk of flow of urban services towards the periphery. When the spatial relationship becomes parasitical, the urban service flow increases more toward the city core.
   - Clear indication of “failure – success” of practiced urban policies in achieving self-sufficiency within the urban periphery.

3. Investment size and capitals flow: towards the periphery which is inversely commensurate of spatial and functional “city core – periphery” relationship. The increase of financial flows towards the peripheral settlements can indicate:
   - Neutrality of the “city core – periphery” relationship.
   - Clear indication of “failure – success” of practiced urban policies in achieving self-sufficiency within the urban periphery.
Sample Study
The study pursued a random sampling for gathering some necessary statistics. A questionnaire has been formulated to represent the local community in question. The designed questionnaire has covered 170 families, 8 members from each tribe have been interviewed separately. Data analysis has concluded the following results:

Population flow and commuting:
The SPSS analysis has shown that the average of those who daily or weekly commute between Amman and Muwaqqer has reached 69.1%, of which 55.6% have used their private cars. Only 27% have been using public transport.

Urban services flow:
Results have revealed that the basic urban services, within the study area, do not meet with the current growing demands, while people of Muwaqqer remain relying more on Amman:
- 71.1% were dissatisfied with the available means of public transport.
- 77.5% were dissatisfied with the existing urban services.
- 51.5% have complained of the irregular supply of electricity and water.
- 93% were dissatisfied with the existing local recreation facilities.
- 56.3% have preferred remaining under the central administration of GAM.

Investment and capital flow:
The current investment flow towards Muwaqqer has increased compared to earlier times. It is noteworthy, that 54.9% of the interviewed people have considered Muwaqqer an attractive labor market that provides job opportunities, although 60.6% have not expressed interest in investing at Muwaqqer. 60.6% of the local labor force arrive from surroundings districts.

Relating the above data to the proposed urban strategies in regard with the spatial framework of Muwaqqer zone, one can observe that:
- The population flow and commuting with Amman has increased.
- There is insufficient flow of urban services from Amman to Muwaqqer.
- The average of capital investment has grown.

In other words, the functional relationship between Amman and its peripheral districts remain strong. Al-Muwaqqer continues to rely on Amman for the basic needs. However, the urban planning framework has obviously failed to apply the decentralization concept that has been proposed by both master plans. In addition, the effectuation of the proposed highway shall further consolidate the spatial separation between Muwaqqer and Amman. Moreover, the evolving urban services existing in Amman have polarized a destination for employment opportunities that are inconsistent and contradicting with the desired decentralization.

Conclusions
Over the past four decades, the peripheral districts have developed into random settlements around Amman. Loose municipal control and lack of professional inspection resulted in an actual urban chaos. The deep rooted centralized authority of GAM is clearly contradicting with the aspired decentralization. These marginal settlements, however, have obsolete municipal management systems, often governed by mediocre
individuals. Accordingly, the successive urban policies have failed to integrate or separate the accumulated parasitic settlements that are mainly served by Amman. The adoption of glamorous urban planning policies is not enough. Appropriate institutionalization of the development plans and realistic implementation of the spatial policies could yield the desired change through the following measures:

1. The spatial expansion of the Greater Amman Municipality zoning has often been practiced by annexing adjacent human settlements lying close to the encircling highways. This practice constituted heavy burden son Amman. However, the accelerating growth of industrial development has formed another difficult agent within the current urban fabric.

2. GAM is actually facing intricate difficulties to effectively control an area of 700 sq. km. which was adopted by the Amman Master Plan in 2008. Apparently the concept the “Metropolis” has failed after the pull-out of several peripheral municipalities. Practically, some of these municipalities were the hinterland of Amman, and maintained an essential partner to the fulfillment of the desired metropolis.

3. GAM has already embarked on the implementation of the proposed ring road which was initially suggested by GACDP in 1986. It is worth mentioning, that the marginal municipalities do not possess the same momentum of urban development that Amman has. The failure of adopting decentralization calls for an immediate restructuring of the planning strategy. Moreover, the accommodation of more than 75% of the economic activities and 33% of Jordan population, Greater Amman Municipality needs to reconsider the general objectives of its administrative system.

4. Industrial developments and other pollution sources allocated among the residential areas maintain a serious problem for the future development of Amman. So far, none of the master plans has suggested an efficient way out of this nagging problem.

5. Postponing active measures to alleviate the existing problems facing the remaining annexed municipalities would eventually culminate into:
   - Increase of more marginal settlements within the existing urban fabric of GAM such as Southern Marka and Al-Raqeem districts.
   - Independence of more of the annexed municipalities around GAM similar to what Al-Jiza and Muwaqqer have done.
   - Increase of more marginal settlements with uncontrollable growth and thus becoming notoriously difficult to manage similar to the case of Rusaifa district.

6. Increase of random spatial peripheral sprawl around the zoning boundaries of Amman caused by:
   - The highways that link two of the large growth centers i.e. Zarqaand Salt. Pretty much the same would be the outer ring road of Amman-Muwaqqer-Azraq which links the city core with the suburbs, as well as the ring road encircling Greater Amman.
   - The uncontrolled industrial expansion along the Amman UDC which mainly runs through private properties.
   - An obsolete law of land acquisition which governs the urban development process.
   - The Planning Law and Investment Promotion Law, which allow spatial expansion beyond the zoning limits against financial fine regardless of the Master Plan terms which govern the spatial growth within the city urban fabric.
   - Weird urban policies formulated within an ideal theoretical framework that disregard the time length, land acquisition law and the spatial development regulations.
7. Practice of inappropriate land use policies and urban development often raise planning disruptions between the peripheral municipalities and GAM. Such issues often result in haphazard spatial actions, ignoring the existing physical structure and target unnecessary spatial sectors. In other words, the current spatial structure of Al-Muwaqqer has been ignored in the urban development plans of Amman.

General Considerations
So far, the spatial development plans of Amman have demonstrated that the improvement of urban infrastructure in the peripheral settlements are expensive compared to the development of the urban center. This unfair trend should be reconsidered. In this context, the current study suggests the following considerations:

1. Abandoning the conflicting concept of “decentralization” once, in a disguised manner, the urban policy continues adapting “centralization”. It proved to be waste of time, effort and money to practice strict central urban policy under the title of decentralization. However, lack of understanding to the integrated planning mechanism and ignoring the value of learning from our past experience has resulted in expensive mistakes. The current study recommends the adoption of an applicable centralized approach in order to rectify the current urban planning system.

2. Reassessment of the significant role of the marginal municipalities on equal footing could probably lead to better relationship with GAM, seeking in the meantime better coordination of an agreed planning vision that serves the interests of all parties.

3. Reconsider the obsolete planning codes that control the spatial framework. Such codes do not keep pace with the rapid contemporary changes.

4. It would be more realistic to adopt a “Bottom-Up” participatory planning approach, especially where urban land is mainly controlled by the private sector.

5. Long-term development plans for Amman proved inflexible and unrealistic, especially when facing abrupt population increases caused mainly by migration influx. Continuous planning would yield better outcomes.

6. Enhancing balanced regional development rather than the concentrated economic and demographic polarization in Amman.

7. Reconsidering the spatial expansion policy of GAM and the associated prudence with annexation of the adjacent municipalities so as to enhance the general spatial structure of those less-advantaged districts.

8. Find creative means of cooperation mechanisms that secure innovative urban development between GAM and the surrounding municipalities in order to improve the spatial growth policy of all parties and to evolve an inspired urban image of a contemporary metropolitan Amman.
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