

Towards An Effective Urban Growth Management Strategy In Qatar (1)

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Introduction:

Control and management of urban growth is currently a subject of intense debate in both professional and academic planning circles, as suburban sprawl, pollution, and the decline of the urban environment particularly in city centres have become more sensitive public issues. The desire to control growth versus an increasing public need for housing and other related facilities has created a serious dilemma for planning agencies in their efforts to facilitate for better living environment.

Growth control is one of those subjects on which there is very little middle ground. One on side are academics and economists who argue that growth controls are generally exclusionary and almost always raise the price of housing and other related facilities (Frieden 1979; Fischel 1990).

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- (1) The State of Qatar is a peninsula situated halfway along the West Coast of the Arabian Gulf. It covers an area of 11,437 sq.km. It has a desert climate of hot summer and relatively warm winter. The present population of the State is estimated at 600,000 inhabitants, most of whom reside in Doha, the capital city (around 450,000), while the rest lives in a number of small towns and village. The State of Qatar is rich in its oil and natural gas, and estimated to be one of World' s three countries that possess the biggest gas reserves.

Abstract:

Control and management of urban growth is currently a subject of intense debate in both professional and academic planning circles, as suburban sprawl, pollution, and the decline of the urban environment particularly in city centres have become more sensitive public issues. The desire to control growth versus an increasing public need for housing and other related facilities has created a serious dilemma for planning agencies in their efforts to facilitate for better living environment.

Growth management can be defined as the mitigation of the impacts of growth in order to improve or maintain the quality of life in a community. By clearly articulating the values of the community and identifying those items that contribute to the quality of life through the creation of a growth management strategy and implementation plan, it is possible to establish an effective approach to manage future growth.

Increasing demands for urban growth with decreasing satisfaction in the resulting quality of life is the dilemma of most countries including the State of Qatar. The inefficient use of economic and physical resources results in development that generates new problems, such as sprawl, traffic congestion and rising demands for increased government spending on new infrastructure and services.

The lack of comprehensive planning and development control may also results in infrastructure installation costs that are much higher than what they would be with a growth management strategy in place. The land allocation policies that are uncoordinated with physical development plans in Qatar exacerbate the problem by directing development to areas without appropriate infrastructure and services.

This paper aim at reviews the current problems associated with the lack of an urban growth management strategy in the State of Qatar and outlines the process of creating a comprehensive system to effectively handle urban growth. The paper will also attempt to formulate an outline for an effective strategy to mitigate the impacts of growth in order to maintain and improve the quality of life in the State of Qatar.

On the other side are the residents of growing areas who see controlling growth and its side effects, i.e. traffic congestion, declining environmental quality, and loss of traditional character; as essential to maintaining their quality of life (Landis 1986). There is as yet no consensus within the planning profession as to which methods of growth control and growth management do and do not work.

The terms growth control and growth management are widely but incorrectly used to mean the same thing. Because this paper is primarily about growth management, not growth controls, it is imperative to differentiate between the two concepts. Growth controls are designed to limit significantly population growth, housing construction, and / or economic growth below levels that would otherwise be achieved in an unconstrained market. While growth management seeks to redistribute growth and development in a way that minimize negative environmental, social, and fiscal impacts. The primary tools of growth management are conventional zoning and subdivision regulations, annexation controls, and urban limit lines, as well as infrastructure service and timing requirements (Schiffman 1989).

The distinction between growth management and growth control is much clearer conceptually than it is in the everyday world of development regulation. Growth control policies inevitably involve elements of growth management, and vice versa. On the other side of the coin, the cumulative effects of certain growth management strategies may be to limit

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significantly new development. In such cases, growth management strategies function as *de facto* growth control programmes.

One other distinction between growth management and growth control is worth making. Growth control programmes, such as building permit caps or annexation limits, can be and often is adopted independently of other land use planning policies. That is, a city need not have a well thought out land-use planning process to implement a growth control programme. Growth management strategies, by contrast, rarely exist without good development planning.

Qatar's current dilemma of increasing demands for urban growth with decreasing satisfaction in the resulting quality of recent projects, neighbourhoods and services provides a stimulus for thinking about developing growth management strategies. In Qatar, the inefficient use of economic and physical resources resulted in development that generated new problems, such as sprawl, traffic congestion and additional demands for increased government spending on new infrastructure and services. Also the lack of comprehensive planning and development control resulted in infrastructure installation costs that are much higher than what they would be with a growth management strategy in place. Land allocation policies adopted by the Land Department that are uncoordinated with physical development plans exacerbated the problem by directing development to

areas without appropriate infrastructure and services. Creating a growth management strategy for Qatar can produce:

1. A more efficient process for long - term management of national resources (physical , economic and social) .
2. Improved management of supply and demand for government lands and services and more equity in issues of land allocation and development approval.
3. Increased quality of physical development for urban and rural communities.
4. Increased public health and safety due to improved sewage, solid waste, and water and ground water conservation systems.

In establishing a growth management strategy, it is important to identify clear growth management goals. The goals represent a consensus of the government's policy and objectives for future development. The process of identifying goals should initiate increased communications and coordination among the many ministries and departments that are involved in Qatar's physical development.

Although more growth and development is desired in Qatar, there is also dissatisfaction with the quality, pace and pattern of existing development. The quality of planning, design and construction vary widely. In many areas, the rapid pace of development has outstripped availability of

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infrastructure and services. A pattern of sprawling development is common, extending far past the municipal limits of both [Al-Rayyan] and [Doha](2), see Fig. (1). Within [Doha] and [Umm Said], there is much vacant land that is fully serviced and undeveloped, while some suburban homes have no roads, sewer or water lines. Water is trucked in and sewage is hauled out of many neighbourhoods at great expense and inconveniences. In other areas of Qatar, some villages have been abandoned and others continue to decline because services and conveniences are not available nearby. In spite of some government efforts to provide services and infrastructure to communities in the northern and western parts of the country, families in those areas continue to move closer to the capital [Doha].

The uncontrolled growth in Greater Doha area, (an area which includes the towns of Doha, Al-Rayyan, Wakra, and Umm - Slal), and the decline of villages throughout Qatar are overwhelming existing government resources. This has created an inefficient use of government resources that, with proper planning and management, could provide the needed infrastructure and municipal services for Qatar. An effective growth management system can save billions of QRs. (1 US Dollar equals to 3.65 QRs.) in government provided lands, infrastructure and services.

(2) Doha is the capital city of Qatar, situated on the eastern coast of the peninsula with a total population estimated in 1995 around 450 000. Al-Rayyan is the second largest city adjacent to Doha with a total population estimated around 45 000.

Also the allocation of free government land to all Qataris has a larger cost to the government once all the ramifications are considered such as infrastructure elements, i.e. roads, water, drainage.... Etc. The gift of land carries a very high hidden price tag. Increased demands for infrastructure and services require further government spending to support development of the allocated lands. Lack of an effective national physical development planning and growth management system inflates development costs significantly and draws funds away from other needed government investments.

The purpose of this paper is to review the current problems associated with the lack of growth management strategy in the State of Qatar and discuss the process of formulating a comprehensive system to effectively handle urban growth. The paper will also attempt to formulate an outline for an effective strategy to mitigate the impacts of growth in order to maintain and improve the quality of life in the State of Qatar.

Problems and Related Growth Issues:

Qatar is a rapidly growing and developing country, which has seen tremendous changes in the last 30 years due to the vast wealth generated by the exploitation of oil and natural gas. The country and its citizens anticipate additional growth and development in the future but want to ensure that it will also be beneficial. This desire for continued improvement and

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innovation can be the key incentive for creating and following a growth management programme.

There is much discussion and criticism within the Qatari community about the quality of life created by recent development patterns and procedures in Qatar. Many developed neighbourhoods and districts lack proper utilities and facilities. The cost and delay in providing infrastructure is increasing. Localized traffic congestion is worsening. In addition there is a sense of unease within the society that the quality of the built environment does not adequately support the cultural traditions of Qatari family life and that old traditions will be lost.

The following is a brief summary of the main problems facing physical development in Qatar:

1. The lack of a comprehensive master plan to provide a consistent pattern for future development that responds to the needs of Qatar and its citizens has contributed to ineffective physical development activities. The physical development plan could be the basis for further studies that support the development of goals and objectives for a growth management strategy.
2. The lack of current and appropriate data to assist policy - makers impairs their ability to make the best-informed decisions on land allocations, subdivision and development permits. Government

allocation of land for housing has major influences on the pattern of development and the demand for utilities. According to studies made by the Ministry of Municipal Affairs and Agriculture (MMAA) there are significant government costs (primarily for infrastructure and public services) associated with the allocation of government lands.(3) Costs data and physical development plan recommendations could increase the effectiveness and decrease the costs of these land allocations.

3. There is no comprehensive evaluation of the real cost of providing infrastructure on demand throughout the country. Service departments are unable to plan, budget and schedule for an orderly extension of infrastructure. Extending infrastructure beyond municipal boundaries to government allocated lands may be more costly than purchasing, or funding allocation of, existing and vacant plots serviced with infrastructure inside the municipal area. There should be research on the full costs of extending infrastructure to service remote government allocated lands in order to demonstrate the impacts of land allocation decisions. For example , the financial impacts of these development choices have not been fully evaluated :

(3) See, G. of Qatar, Civil Engineering Department, Government Land Outline Programme, unpublished document, 1993.

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- a. The costs of extending infrastructure to [free] lands versus funding purchase of fully - serviced private lands; or provision of funds to citizens to purchase lots from existing stock instead of allocating newly - created, ex-urban lots.
 - b. The ability of service departments to service all lands distributed, in terms of number of lots, timelines of providing services and availability of government funds for construction of utilities.
 - c. The costs of providing basic infrastructure, services, facilities and amenities for existing developed areas versus the cost to extend development to areas beyond the reach of planned and / or completed infrastructure.
 - d. The costs of lost economies of scale and efficiency, which are caused by dispersed and random patterns of utility construction.
 - e. The total estimated cost to provide infrastructure and services to all allocated lands and to existing subdivided and unserviced lots versus the availability of funding to provide those services.
4. The lack of consistent and strict support for the enforcement of policies and regulations has weakened government ability to plan effectively. Current policies and regulations are not always enforced due to requests

from the government or development precedents that do not comply with current policies and regulations.

To summarize, issues that growth management strategies address in light of the above problems are:

- **Provision of a comprehensive master plan, policies and programmes to define appropriate development patterns, quality, and cost.** The master plan must guide land use and development strategy at the local and national scale , addressing issues of urban / rural settlement , land suitable for development , provision and coordination of utilities , availability of housing , etc.
- **Strategic allocation of government land.** A strategic development plan will provide guidance in the appropriate locating and timing of development, thus allowing allocation of lands to fulfill the growth management.
- **Monitoring and evaluating information about the development of supply and demand, costs and conditions.** This data enhances the evaluation of physical development investment, decisions, and functions.

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- **Coordinated support from all ministries and departments.**

The growth management process increases inter-department communication and coordination for planning, prioritization, implementation, and scheduling of physical development activities.

The Growth Management Process:

Growth management is both a strategy and coordinated implementation process that guide the forces that form cities and settlements. By definition, growth management planning is: “a comprehensive approach to manage future growth by interrelating planning, engineering, financial, and other organizational operations into a total management system “ (4).

The importance of preserving and improving the quality of life in communities and maximizing the financial investment in infrastructure are the major reasons that most countries have engaged, in one way or another, in the growth management process. The process requires: (5)

- Consensus of a vision and goals for the future, through the integrated coordination of the activities and aspirations of public and private sectors to achieve the vision.
- A sound master plan .

(4) Philip O. Carter, *Techniques for Coordinating and Managing Growth*, Journal of Urban Planning and Development, June 1993, ASCE

(5) Landis, John, *Do Growth Controls Work? A New Assessment*, American Planning Association Journal, Autumn 1992.

- An effective development control agency.

Commitment of time, resources and dedication to implement the growth management strategy is vital to achieve results. Growth management is a continual process, which must be continually monitored and refined over time to remain effective.

Countries that have developed growth management policies use their understanding of the forces that form cities to guide the pattern and quality of their future development. (6) There are many factors that influence the development, form and quality of cities. Natural systems and features such as landforms, coastlines, mountains, and rivers control the locations and limits of settlements. Cultural and economic factors such as proximity to jobs, transportation and markets are equally influential. Each city's form reflects the combination of its unique geographic, political and cultural history.

Requirements for successful growth management strategy:

It is expected that a successful growth management strategy should include three key activities:

1. Developing a Consensus of Goals :

The process of creating a growth management strategy must look beyond the creation of plans and regulations. The process must also establish goals

(6) Landis (1992)

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and objectives and create consensus and support for the successful implementation of the growth management strategy.

In this context, it is important to identify the major stakeholders (7) and ensure their participation in setting goals and objectives for the growth management strategy. While this can include nearly every one, there are key stakeholders who have significant involvement, investments or interests in development activities. In addition to government agencies, which provide planning, housing and infrastructure services, private developers, banks, local businesses, residents, and land owners are also participants in the process of urban growth. The participation of all key stakeholders creates a plan that represents the full range of interests.

A planning process that does not involve key stockholders risks missing critical development components and possibly creates active opposition from those whose interests and needs have not been considered. A successful goal-setting process involves broad participation. If all key decision makers and stakeholders are involved in the process and have an opportunity to examine alternatives and impacts of growth, there is a much greater

(7) Stakeholder is a term that refers to one who has a stake or interest in the future character of the city or an urban area.

likelihood that the growth management programme will be well crafted, balance all needs and issues, and be fully supported and successful.

In Qatar, planning and development activities are concentrated in the government, although they are dispersed among many Ministries and the Emir's office. Each organization operates fairly autonomously within its own sphere of specialization, although the decision of one department may impact upon the effectiveness of other departments /ministries.

Developing a growth management strategy in Qatar requires establishing a process for each of those organizations to contribute their expertise to the planning process. National goals and objectives must be identified to orchestrate the efforts and resources of all. A growth management strategy then incorporates, prioritizes and balances the goals of each ministry in a comprehensive summary of national goals and development policies. Review and approval of the growth management strategy, its goals and procedures, is needed through the highest level of the government in order to ensure consensus and support.

2.Creating and Implementing a Comprehensive Master Plan :

The comprehensive master plan is the first tool that must be created for the growth management strategy. The plan gives physical form to the goals, policies, and standards. It establishes the development pattern, character, and density for future growth. The plan identifies areas suitable for

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development, their size, type and intensity, and areas unsuited for development.

There are two processes that support implementation of the physical development. First, development review to ensure consistency of proposed projects with the plan. The development review process addresses all projects (government and private) and is designed to ensure effective implementation of the master plan and the growth management strategy. The second tool is the preparation of a Capital Improvement Programme to allocate funds and to phase provision of infrastructure. The (CIP), systematically identifies all capital projects, when the projects are needed, and when and how funding will be provided. Each ministry and department can develop its own (CIP), based on priorities identified in the national goals, the physical development plan, and its departmental needs and budget. Therefore creating a (CIP) assists in the effective allocation of funds and budgets throughout the government and supports national goals and the growth management strategy.

Growth management strategy requires that development must be linked to the availability of services. The term concurrency or provision of adequate public facilities may be used to describe this requirement. In cases where services, such as schools, roads, and sewers, are not available development cannot proceed and should be delayed until either public or private funding provides services.

For Qatar, concurrency could begin with the required availability of basic utilities: electricity, roads, water, and sewers. In later years, other public facilities such as schools, parks and cultural services may be added to concurrency requirements.

3. Establishing an Integrated Coordination Process :

Extensive coordination of planning goals and objectives with public and private sector project implementation is crucial for growth management. Growth management cannot be achieved without the joint cooperation and participation of all government agencies and private development efforts.

A successful growth management strategy requires government leadership and guidance plus support and commitment from all public and private parties. Therefore, identification and achievement of specific benefits is important to demonstrate the value of the process. Cooperation and participation can best be achieved if the benefits of doing so are well known to the government, private developers, and landowners.

A Growth Management Strategy for Qatar:

There is a strong consensus within government departments in Qatar who are engaged in physical development that a growth management strategy for Qatar would be beneficial and appropriate. Growth management will optimize the use of scarce financial and natural resources more efficiently,

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develops infrastructure services, and creates the opportunity to set clear priorities for physical development.

The growth management strategy for Qatar may comprise the following elements:

1. Goals and Objectives :

Goals and objectives for the growth management strategy for Qatar should clearly address the need and the benefits of managing development and should reflect national development policy and national goals and objectives. The following growth management goals and objectives could be developed:

- Control the quality , pace and type of development on government and private lands .
- Ensure adequate infrastructure for existing and new development ;
- Protect the value of land .
- Fairly allocate costs of development among the government , the land owners / developers and the purchaser .
- Use land and environmental resources properly for development and conservation .
- Allocate government lands in accordance with a physical development plan and national policy .
- Use government funds efficiently to provide needed services and infrastructure for Qatar's citizens.

2. Organizational Structure :

It is recommended that the growth management strategy for Qatar be structured as described below:

- a. An Emiri decree should create Qatar's national management strategy. The decree should authorize and initiate the growth management programme, the procedure, the responsibility of various agencies, etc. Approval from the highest level of government is needed to provide leadership and to support the management and enforcement of the strategy (8).
- b. A Ministerial Coordinating Committee (MCC) should be formed to review and approve the initial growth management strategy and updated strategies in following years. The committee should include representatives of different ministries; their review and comment is necessary to coordinate those activities outside the responsibility of the Ministry of Municipal Affairs and Agriculture (MMAA) (9).

The committee should act on request for appeals in cases where there are conflicts between the growth management strategy and ministerial policies and projects . The (MCC) evaluates each case and develops a resolution in keeping with the intent of the growth management strategy.

(8) The Emiri decree refers to a decree instituted by the Emir, the ruler of the State of Qatar.

(9)The Ministry of Municipal Affairs and Agriculture is the prime ministry responsible for physical development in Qatar.

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A Ministerial Coordinating Council should be established to protect the integrity of the growth management strategy and to wisely incorporate new opportunities and challenges in keeping with the goals for growth management.

- c. The Planning Council, (10) should review the growth management strategy, physical development plans, capital development programme, etc. annually to coordinate with other budget planning activities. Annual updates of the growth management strategy increase the Planning Council ability to identify and coordinate the social and economic impacts and more effectively budget for physical development.
- d. The growth Management Committee ensures that the implementation of the growth management strategy remains consistent with national goals. The committee should review issues brought to its attention by the Planning Department (11) as gleaned from different applications;

(10) The Planning Council is the highest planning organization, established in 1989, to formulate economic and social development plans. Currently is chaired by a committee headed by the Minister of Energy and Industry.

(11) The Planning Department is the prime government agency within the Ministry of Municipal Affairs and Agriculture, which is responsible for physical planning and day-to-day monitoring of physical development on the national, regional, and local levels

evaluate requests for variances from projects not complying with the growth management strategy; guide the Planning Department's activities in implementing, monitoring, and updating the growth management strategy.

- e. The planning Department should address day-to-day implementation and regular monitoring of the growth management strategy. The planning Department should implement the growth management strategy as part of its subdivision and building permit review, current planning, and long range planning activities. The Planning Department can approve only those development applications that comply with the goals, priorities that comprise the growth management strategy. Fig. (2) shows the organizational structure of the proposed growth management strategy.

3. Actions required :

The following are recommended actions required to be undertaken by concerned government agencies, particularly the Ministry of Municipal Affairs and Agriculture to curtail implementation or alleviate impacts of inappropriate growth and development. These actions could be divided into two categories as follows:

a. Short Term Actions , these should include :

- Stopping government subdivision and land allocation beyond municipal limits. The government should not contribute to sprawl or

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provide lots in areas without services. The true costs of this pattern should be documented to illustrate the impacts of this practice.

- Commitment to strict enforcement of all current policies and regulations that manage direction, quality, and timing of growth.
- Imposing moratoria on selective areas to halt speculation in underdeveloped areas within urban areas.
- Obtaining more information for construction and maintenance costs of infrastructure and life cycle costs. Data collection should be planned and implemented to monitor and refine economic evaluation of infrastructure costs.
- Developing a report or other method to provide cost data to government leaders so that they can understand and use this information to guide policy decisions on land allocation and development allocations.
- Creating other incentives to encourage development in suitable areas . For example, a smaller amount of land could be taken for government improvements (roads, schools, etc.) in areas preferred for development . In the long term, a tax or utility fee could be imposed on empty lands in areas where services are available but unused due to lack of development.

- Promoting locations where infrastructure is available. In those areas, the Ministry of Municipal Affairs and Agriculture could attract development through promotion and marketing programmes.
- Freezing new permits in areas not suited for development or where services are not yet available.
- Using a development audit to accompany building and subdivision applications. Such an audit would evaluate the suitability of areas for development based on environmental impacts and availability or scheduled provision of infrastructure and services.

b) **Long Term Actions** , these should include :

- Implementation of physical development plans as the pattern for growth and development in Qatar.
- Utilization of a capital improvement programme to prioritize and phase the provision of infrastructure and services in coordination with the physical development plans.
- Establishment of government policies for development and land allocation should be coordinated with growth management strategy. Incentives to encourage development in desired patterns should be an element of the overall policies.

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- Development of an organizational structure to administer the growth management strategy and to increase communication and coordination of physical development among ministries and departments.

4. The Capital Improvement Programme :

A capital improvement programme (CIP) provides a prioritized schedule and budget for all capital improvements, such as infrastructure and utilities. The CIP identifies each project's priority, costs, and estimated construction period. This information can be used to coordinate development with timely provision of utilities and to ensure that high priority areas receive infrastructure as soon as possible. The CIP also provide private developers with information, about when their properties will be served, which is useful for their investment and development strategies. An annual CIP ties in directly to the growth management strategy.

5. Development Review Process :

The development review process supports the growth management strategy by reviewing each development application in light of growth management requirements, as described in the goals and objectives, the physical development plans and the capital improvement programme.

The development review process also needs to consider variances from the growth management strategy. Variances should be reviewed and approved.

Standardized process and evaluation criteria should be established that define clear reasons for granting a variance.

A request for variances could be recommended by either the Planning Department or requested by the applicant. If the owner challenges the denial of the application, there should be a reasonable period after the Planning Department's decision, during which the request for variance can be filed. There can be only one variance request per project and the decision is final.

6. The Monitoring System :

In order to increase the effectiveness of the growth management strategy and demonstrate the benefits of its implementation, a monitoring system should be set up to collect development data for review and evaluation. Data about approved and completed development, the location of utilities and infrastructure the costs of infrastructure, grading and construction and the CIP status of projects, should be included. The Growth Management Committee and the Planning Department should use this information to evaluate the impact of the growth management strategy and for future planning updates.

Without sustained government support, a growth management strategy is doomed to failure. Growth management must deliver identifiable benefits in line with the vision to maintain community and political support. At present, there is a very distinct sense of skepticism about effective change in Qatar. In order for a growth management strategy to be effective, it will have to

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show some immediate results. The Ministry of Municipal Affairs and Agriculture will need to develop a strategy about how to describe and promote the benefits of growth management within the government. It will be very important to identify measurable benefits of growth management to everyone in the government who will be affected by change.

Continuity of leadership is important to provide policy guidance, technical expertise, and institutional memory to keep development programmes on course. A successful growth management strategy requires many years to bear fruit, due to the number of projects and investment decisions that comprise development. Although there can be early benefits that are recognized and promoted, a sustained effort is needed to realize success.

Conclusion:

In conclusion, it is clear that the creation and implementation of a growth management strategy will provide the means to achieve an improved future for Qatar, where physical development supports national economic, social, and environmental goals. More specifically, the benefits that Qatar will gain from an effective growth management strategy will include: the more efficient use of development funds, budgets, loans, services; a more efficient use of land; more equity in issues of land allocation and development approval; improved efficiency in infrastructure construction; and above all, Qatar can become a model for effective growth management in the Gulf.

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Figure (1) : Pattern of Urban Sprawl of the Cities of Doha and Rayyan

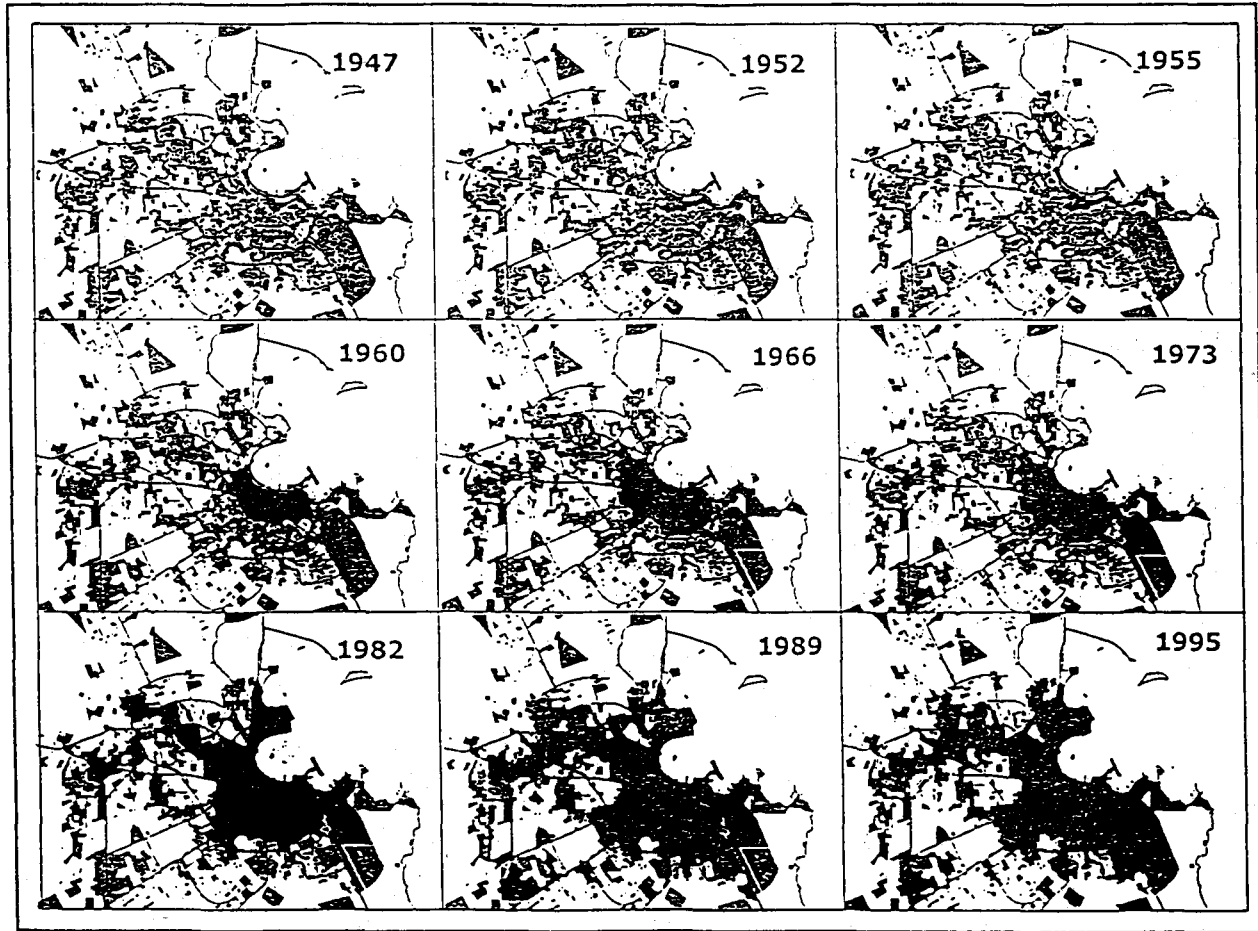


Figure (2) : Organizational Structure of the Proposed Growth Management Strategy for Qatar

