



**The impact of sustainable urban planning on land  
property and markets in Sharjah**

تأثير التخطيط الحضري المستدام على ملكية الأراضي و السوق العقاري في اماره الشارقة

by

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**Dissertation submitted in fulfilment  
of the requirements for the degree of  
MSc SUSTAINABLE DESIGN OF BUILT ENVIRONMENT  
at  
The British University in Dubai**

**May 2019**

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## **Abstract**

Modern civilization faces numerous challenges in its quest to meet its needs despite the limited nature of the available natural resources available to humanity. The nature of land as a natural resource supports the arguments opining for the implementation of sustainable urban planning (SUP) measures. The implementation of sustainable urban planning measures in Sharjah must target essential aspects such as housing, infrastructure, and social amenities among other notable and desirable outcomes. The information collected from the survey indicates that land is one of the most valuable resources in Sharjah despite it's less than optimal use within Sharjah. Furthermore, Sharjah can attract growth by developing its infrastructure, improving its social amenities, incentivizing economic growth and improving its healthcare sector. Such measures are only possible if supported by the local authority in tandems with the relevant stakeholders to implement even development across the underdeveloped and developed urban areas. Finally, the implementation of SUP should focus on introducing economic-development oriented activities to boost its appeal in collaboration with the government as the supervisory body on all proceedings. The findings further suggest several policies that could improve Sharjah's standing that include incentivized trade policy, property rights and SME funding policy, natural resource protection policies, green building and construction policies, ethics regulation in the industrial sector policy, and finally the land use and land price regulation policy. Further consultation with experts and local authority affirms that the introduction of these policies will have the desired effect on Sharjah with an emphasis placed on land use regulation. In that regard, the study findings documented in this report are essential to the future of Sharjah particularly in improving its lands market standing.

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## ملخص

تواجه الحضارة الحديثة تحديات عديدة في سعيها لتلبية احتياجاتها على الرغم من الطبيعة المحدودة للموارد الطبيعية المتاحة للبشرية، حيث أن طبيعة الأرض كأحد الموارد الطبيعية الهامة تدعم الحجج الرئيسية في تطبيق وسائل التخطيط الحضري المستدام ، إن تطبيق وسائل التخطيط الحضري المستدام يستهدف الجوانب الأساسية في امارة الشارقة مثل الأسكان ، البنية التحتية ، المرافق المجتمعية و غيرها من الجوانب التي تساعد على الوصول للنتائج المرغوبة .

تشير البيانات التي تم جمعها من الدراسات الميدانية إلى أن الأرض تعد واحدة من أكثر الموارد الطبيعية قيمة في امارة الشارقة على الرغم من انها ليست بالأستخدام الأمثل الذي تطمح اليه الأمارة ، علاوة على ذلك تستطيع امارة الشارقة ان تجذب النمو من خلال تطوير بنيتها التحتية ، تحسين المرافق المجتمعية و تحسين قطاع الرعاية الصحية و التعليمية و بالتالي تحفيز النمو الأقتصادي . لكن لا يمكن اتخاذ هذه التدابير إلا اذا تم دعمها من السلطات المحلية بالتعاون مع شركاء التنمية و اصحاب المصلحة المعنيين و ذلك للعمل بيد واحدة على تطوير المناطق الحضرية النائية و المتقدمة ايضا .

أخيرًا ، ينبغي أن يركز تنفيذ برنامج التخطيط الحضري المستدام على إدخال أنشطة موجهة نحو التنمية الاقتصادية لتعزيز جاذبيتها السوقية و العقارية بالتعاون مع الحكومة كهيئة إشرافية في جميع الإجراءات. تشير النتائج أيضًا إلى العديد من السياسات التي يمكن أن تحسن مكانة امارة الشارقة على المستوى المحلي و العالمي والتي تشمل سياسة التجارة التحفيزية العالمية ، سياسة حقوق الملكية الفكرية و تمويل الشركات الصغيرة والمتوسطة ، سياسة حماية الموارد الطبيعية و البيئة ، سياسة المباني الخضراء المستدامة ، سياسة العمليات الصناعية التنظيمية للوائح و الاخلاق المهنية ، وأخيرا سياسة تنظيم استعمالات و اسعار الأراضي . بالإضافة الى المقابلات التي اجريت مع الخبراء و السلطات المحلية و التي بدورها اكدت اهمية تطبيق هذه السياسات و مالها من الأثر الكبير على امارة الشارقة مع التركيز على اهمية العمل على تنظيم استعمالات الاراضي كأولوية رئيسية ، و في هذا الصدد ، تعتبر نتائج الدراسة الموثقة في هذا التقرير ضرورية لمستقبل امارة الشارقة وخاصة في تحسين مكانتها في سوق الأراضي.

## **Acknowledgment**

The culmination of a long and arduous period of research and study efforts is the satisfactory completion of my thesis. The completion of this document would not have been possible had it not been through the support and contributions of various individuals in my personal and academic life. I would like to take this opportunity to thank those individuals for their stellar contributions. The countless hours spent writing, evaluating, and revising this document in accordance with the course expectation were exhausting, to say the least, but the experience was irreplaceable. The amount of time spent in consultation with the teachers and various facilitators proved to be particularly useful in refining this research endeavor and the presentation outlined herein. I would like to convey my appreciation to my professor Dr. Bassam Abu-Hijleh who has been instrumental both as a facilitator and a mentor during the course of my studies. His consistent and intuitive input into the work put into this dissertation was crucial in its successful completion. My development and wellbeing during this would not be possible without the support from close friends and family members. My parents, in particular, were a constant source of support and encouragement in difficult period where the easier option would have been to give up. However, the constant show of support and encouragement was crucial in motivating me to fulfill the dissertation requirements.

Finally, I would like to thank all the teaching staff and the non-teaching staff of this fine institution for their work behind the scenes to facilitate learning and research. Their efforts often go unappreciated because it is expected of them but this does not make it any less impressive or essential. Thank you.

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### **Abbreviation**

|            |                                 |
|------------|---------------------------------|
| <b>UAE</b> | United Arab Emirates            |
| <b>BRS</b> | ARZ Building Rating system      |
| <b>CSR</b> | Corporate Social Responsibility |
| <b>EEG</b> | Emirates Environmental Group    |
| <b>UN</b>  | The United Nations Habitat      |
| <b>GDP</b> | Gross Domestic Product          |
| <b>QoL</b> | Quality of Life                 |
| <b>SUP</b> | Sustainable Urban Planning      |

# **Chapter 1**

## **Introduction**

## 1.1 Introduction

Land is a limited natural resource available to every nation and community across the world where development and globalization are central themes. The limited nature of land dictates different facets of progress achieved in the social, political, and economic fronts. Countries that exhibit higher levels of optimal land use are among the leading nations across the world when compared to others based on the three aspects of life. The Netherlands is a viable example of a country whose optimal land use translates directly to its economic, social and political growth. The Netherlands is a green country where more than four-fifths of its land surface serves recreation, nature, agriculture, and woodlands according to Halleux, Marcinczak, and van der Krabben (2012). The report also affirms that despite the limited size of land surface available the nation has a unique use of land displayed by varying spatial use as well as the documented land reclamation projects. The need to develop proper means of land utilization led to the introduction of urban planning in the modern context (Smith 2007). Construction of cities followed no particular pattern before the mainstream introduction of urban planning. Instead, the process was a haphazard endeavor that utilized different resources to achieve diverse outcomes powered by resources from those with financial clout. Arguably, urban planning is the crucial tool available to modern-day leaders who aim to optimize the use of the non-renewable resources available to human beings (Smith 2007). Such efforts are in place to ensure that human beings enjoy a particular quality of life while minimizing the wastage of the limited land resource, among other means of production, available to them.

## 1.2 Motivation

The Earth faces the distinct possibility of becoming inhabitable courtesy of human activity that put a strain on the admittedly limited natural resources. The limited nature of resources implies that as such, resources become depleted thereby plunging humanity to the possibility of severe shortages that could affect the quality and length of human life. The land is at the epicenter of this controversial debate that includes means of optimizing its use. Globalization and urbanization are responsible for the changes witnessed in recent years, leading to inefficient use of land resources (Meyfroidt, Lambin, Erb & Hertel 2013). In that sense, it is logical to explore alternative intervention mechanisms such as urban planning and sustainable urban planning to protect humanity from the risk of rendering earth inhabitable. The need to understand the value of land, factors that impact its appreciation or depreciation is a worthwhile study course that this report pursues earnestly. Consequently, the following report investigates the impact of the introduction of Sustainable urban planning on land prices and property market with a particular focus on Sharjah in the UAE.

The information collected and interpreted in this study process will provide a platform to evaluate the implementation of sustainable urban planning methods. The realization of the earth's diminishing resources warrants the use of such an intervention mechanism to help humanity live efficiently regardless of the depreciating natural resource volumes. The information gathered could also contextualize the recent changes in land values and market trends for future application. The research will provide essential information that could aid future research efforts seeking to improve the sustainable urban planning intervention mechanism on a global scale. Additionally, there is a distinct

knowledge gap that the results of this study will help to plug if the research is successful in meeting its aims and objectives listed earlier in this report.

### **1.3 Aims and Objectives**

The aspect of land is in an emotive and central topic that has wide-ranging repercussions across political, social and economic circles. The introduction of sustainable urban planning as an intervention method is likely to cause significant implications on the immediate environment and the surrounding community. The research study aims to establish the extent of the impact that sustainable urban planning has on the value of land and property pricing with a particular focus on Sharjah in the UAE. Moreover, the report investigates the effects of the same on the market trends based on literary sources that address the scope of the subject. The report seeks a universal body of results that will meet the research objectives outlined below within the stipulated time frame.

The following research seeks to meet several objectives that include:

- To establish the general impact of sustainable urban planning on the economy of the affected region while providing comprehensive coverage of the changes to the land and property in recent years.
- Provide an inferred prediction of the future of land and property markets based on the information gathered that explains its current state and influence of sustainable urban planning.

The above objectives bear the foundation for answering the following research questions:

1. What is sustainable urban planning? And what does its continued implementation portend for the sustainability of the planet?
2. What is the extent of sustainable urban planning's impact on the economy, and society in general?
3. What are some of the recent innovative interventions, as part of sustainable urban planning, that have yielded positive implications for the targeted region?
4. Does the available literature provide a unilateral depiction of the long-term impact of sustainable urban planning for future generations?
5. What is the logic behind the implementation of sustainable urban planning in urban areas?
6. Does Policies and laws have an influential role in creating a sustainable urban environment?

#### **1.4 Research Plan**

The research plan will consist of several phases documented by the number of chapters dedicated to the aims and objectives addressed herein. Chapter 1 covers the introductory phase that will present background information about the topic of the study and the process of research. Chapter 2 will serve as a platform to explore the currently existing literary sources that cover sustainable urban planning and its implications on the economy, politics and social aspects of society. The information will also include the distribution of notable differences brought by intervention mechanism associated with sustainable urban planning as documented by accredited authors. Chapter 3 will document the systematic research process adopted or this particular research to establish its suitability in the pursuit of the research aims and objectives. Chapter 3 will also

illustrate the research methodology that addresses the process of data collection, analysis, interpretation, and tentative discussion in line with the aims and objectives listed herein. Chapter 4 and 5 will include a detailed studies and analysis of the current situation, including a number of questionnaires and interviews with stakeholders and development partners in this field. And finally Chapter 6 will include all the relevant literary resources used to explore and substantiate the efforts of the research team regarding the impact of sustainable urban planning on land value and the market.

# **Chapter 2**

## **Literature Review**

## 2.1 Introduction to the United Arab Emirates

The United Arab Emirates is a federation of several emirates that came into being after the great union on the 2nd of December 1971. The UAE comprises of seven emirates that have steadily grown in stature and value over the recent years to become one of the Middle East's most important economies. The seven states that make up the UAE include Ajman, Abu Dhabi, Ras al Khaimah, Fujrah, Sharjah, Umm al Quwain, and Dubai as shown in figure (2.1.1) . Abu Dhabi serves as the capital of the UAE. The UAE has a population of about 8.1 million people who occupy an area equivalent of thirty thousand square miles ( cense 2015) . The UAE is predominantly an Islamic nation with the main language spoken being Arabic, although globalization is responsible or several other languages sprouting up. The country's main currency is the Dirham, and the life expectancy for the population stands at 78yrs (women) and 76yrs (men). The UAE is an authoritarian nation currently led by Sheikh Khalifa bin Zayed after being named as the president by the UAE Federation Council in 2004 upon the death of his father.



Figure (2.1.1) : distribution of the seven emirates on the map – ( AnnaMap 2018)

The UAE was initially dependent on the fishing industry and the pearl industry before the discovery of oil deposits within its reserves. The discovery of oil deposits catalyzed a significant shift in the economy marked by significant growth and transformation of various states. The UAE transformed into a regional trading and tourism destination hub that is both competitive and lucrative for investors. Out of the seven states, Sharjah was the most appealing choice for research given its strategic location given that it is adjacent to the Gulf of Oman and its potential impact on the UAE as a whole as shown in figure ( 2.1.2) . Sharjah is the third largest state in the UAE, and it is the home to numerous educational, cultural, and commercial institutions. Sharjah is host to Sharjah Airport, which is a crucial cargo hub in the Middle Eastern region, which contributes to the economy of the UAE while serving the third highest population in the UAE. Therefore, it is the ideal region for this research study that covers the impact of sustainable urban planning in a modern day urban center such as Sharjah



Figure ( 2.1.2) : Showing The city of Sharjah and its other cities , in the left city of Khor Fakkkan, Middle city of Dibba al-Hasn and on the right city Kalba ( TheWorldMap 2015 )

## **2.2 The Development of Sharjah Planning From 1968 To 2018**

The UAE is home to numerous innovative changes in its urban centers driven by external and internal factors tied to the political, social and economic stability of the region. The last fifty years have brought significant improvement in SUP practices, particularly in the latter years. The changes in question are a direct response to the growing economic viability of the region and the increasing demand for land and essential commodities such as decent housing. The study revealed several fascinating findings of Sharjah and The UAE region in its entirety within the fifty-year limit indicated earlier as discussed below (Rizzo 2014). The changes include the introduction of the green building codes in the UAE, Revision of the existing corporate social responsibility regulation, significant changes to the immigration policies, and the natural environment. In hindsight, Sharjah has grown from a reclusive region in the UAE to the cusp of the definition of the modern-day metropolitan city with impressive infrastructure and urban planning systems in place.

The introduction of the green building codes was one of the most significant achievements recorded in the last half a century as the UAE adjusted to the challenges brought by urbanization. The region faced adverse repercussions directly associated with rapid urbanization and population growth, which threatened the stability of the region. The introduction of those codes transcended the boundaries of the UAE as evidenced by the introduction of similar regulations in Qatar, Lebanon, and the Middle East (Olubunmi, Xia & Skitmore 2016). Currently, the region has far unique green building codes covering the UAE and the adjacent region that includes the ARZ BRS from the Lebanese Green Building Council, the Estidama from the Abu Dhabi Planning Council, the Global

Sustainability Assessment System from the Qatari authorities, and finally the Dubai's Municipality green building regulations ( Al-Sa'fat ). Such changes took root in the latter years as the region realized the importance of optimizing the resources available within its boundaries (Olubunmi, Xia & Skitmore 2016). Green buildings are a testament to the commitment of the government and the local authority to oversee the introduction of measures that regulate the construction industry.

The introduction of the green building codes sought to achieve desirable levels of the consumption of energy, water as well as other resources on the back of exponential population growth. Additionally, the green building possesses the capacity to reduce the carbon footprint of the urban population, among other forms of pollution experienced in the region (Olubunmi, Xia, & Skitmore 2016). Such changes have also affected the normal operations of commercial entities operating within Sharjah and the greater UAE region. One such change manifests in the form of revised corporate social responsibilities that allocates particular responsibilities for the consumption of the natural resources to the perspective and operational corporate societies in the region. Currently, corporations in operation in Sharjah must meet the threshold of involvement and responsibility to the local communities (Tsavdaridou & Metaxa 2015). The corporations must take up the initiative in driving healthcare, safety, eco-friendly solutions, and long-term community investment as part of sustainable urban planning that benefits all the involved stockholders. The increasing influence of CSR programs guarantees the efficient use of resources, safeguarding the interest of the local population and improving the long-term sustainability of the region in question.

According to Malekpour, Brown, and de Haan (2015), one of the main reasons behind the increase in population growth over the last fifty years is the immigration policies in place by the UAE and the local authority in Sharjah. The entire UAE as a country operates using open immigration policies that encourage the movement of individuals across its border to specific regions of economic viability or urban appeal. The increasing population has led to a significant boom in the construction industry as it struggles to sustain the increased demand for proper residential and commercial buildings (Shehu, Shehu & El Khatib 2018). The realization of the significant mismatch led to the establishment of the Emirates Environmental Group (EEG) to further the sustainable development goals of the region. The EEG is a leading non-government organization with headquarters in Dubai that advocates for pertinent issues that include waste management, education, energy, and water conservation as well as the urban ecological design among others (Shehu, Shehu & El Khatib 2018). Furthermore, the emergence of a vibrant civil society is responsible for the increased number of strategic changes in Sharjah in recent years to meet sustainable urban planning objectives. Such groups were instrumental in championing for improved SUP initiatives that served the interest of Sharjah.

Sharjah also faces a distinct change that other cities in the world might not experience during normal operations in the form of natural constraints like the weather and the natural topography. The natural environment around Sharjah and the UAE exhibits desert conditions that affect the structure and design of buildings that optimize the extreme sunlight and exhaustible water reserves. Sharjah has extensive construction projects in place in line with the urbanization demands imposed by the increasing population demands (Taleb & Taleb 2014). In hindsight, the changes in Sharjah in the

last fifty years have steadily streamlined with current SUP practices. The changes to the construction industry as well as on the economic front are representative of the region's desire to match the urban development in other areas of the world. The region is likely to experience increased growth to match the growing levels witnessed in other great metropolitan areas as described by Wei, Huang, Lam, and Yuan (2015). The trend that includes the increased improvement of SUP in Sharjah is likely to grow in the future on the foundation offered by technological innovation across multiple disciplines.

### **2.3 Economic Changes from 1968 to 2018**

The economic changes witnessed in Sharjah, and other regions in the UAE follow a distinct pattern catalyzed by technological innovation and sustainable urban planning. The most notable economic reform in the area stems directly from the oil-rich reserves within the UAE which catalyzed the growth of other industries. The oil deposits opened up the region to the banking sector, the healthcare industry, improved per capita earning and overall economic growth. The exportation of oil and oil products to an ever-growing oil market has created significant job opportunities for the locals as well as peaking the interest of the international business community (Mahmah & Kandil 2018). The region grew from economic obscurity in the yesteryears to a leading industrial nation supported by a booming real estate industry and overall improvements in other economic sectors. The changes in the economy have cut across the income levels, the standards of living, consumption of natural resources, and entrepreneurship among other factors. Each of the factors described above provides significant input in the manifestation of economic growth not only in Sharjah but notable portions of the Middle East.

The changes to the economy in Sharjah and the adjacent towns have mainly revolved around the exploration and sale of oil and oil products to the international market. The introduction of sustainable urban planning in recent years has contributed significantly to the exploration of oil with the view to optimize the process and protect the environment. Such efforts are contributory to the need to reduce pollution emitted by different industries and manufacturing firms in the region (Mahmah & Kandil 2018). Furthermore, the region's immigration policies and increasing entrepreneurship appeal have led to the entry of significant business investors looking to capitalize on the untapped market potential. The potential for business in the expansion and the growth of Sharjah and the UAE has aided in strengthening the economy for the last fifty years. Sharjah and the adjacent regions have benefitted immensely from the increased employment opportunities across different industries that depend on the oil industry for sustenance (Mahmah & Kandil 2018). The country's income distribution has experienced a gradual increase as the country's economic potential came to the fore through increased oil exportation.

## **2.4 Urban Planning**

Ideally, urban planning refers to the large-scale intervention process set in motion to direct the planning and development of modern-day human settlements. The widespread intervention cuts across all possible platforms that include architectural, economic, infrastructural, political, as well as ecological aspects. The universal goal of urban planning is to ensure that the use of land is optimal while streamlining the future use of the same resources by the incoming generations (Tweed & Sutherland 2007). The efforts by urban planning focus on the internal form or structure of the city while also

catering to the functional and aesthetic appeal of modern-day urban centers (Tweed & Sutherland 2007). Typically, urban planning involves critical review and rectification of the infrastructure and building to ensure that the environment meets the threshold for ideal development and growth. Urban planning responds to the diverse needs of the human race by streamlining it with the limited natural resources available on earth.

Urban planning is a multifaceted approach that cuts across different disciplines, different social and physical boundaries driven solely by the desire to meet human needs using the resources available. The UN-Habitat describe urban planning and design as an area that supports cities as well as the relevant authorities with viable guidelines, tested approaches, and effective tools that support urban growth (UN-Habitat 2012). Furthermore, urban planning and design help improve sustainability, efficiency, and equity by relying on design and planning at all possible levels. Urban planning efforts contribute to climate change mitigation and adaptation with the long-term view of helping urban centers cater to different needs from political, social, and economic backgrounds.

Meeting the urban planning objectives requires the extensive use of resources in a coordinated manner, in direct response to some of the challenges of modern-day human settlement. Human beings face different challenges in matching the available resources with the exponentially growing human population in urban and rural centers across regional boundaries. Some of the challenges include the need for proper housing, access to social amenities, access to adequate healthcare, employment opportunities, proper waste disposal, proper infrastructure, food security, and environmental conservation among others (Ahern 2013). Each of the challenges could result in significant repercussions for the quality of life of human beings if they do not receive sufficient

intervention through urban planning mechanism. The challenges listed above arise from the concurrent human action or the repercussions of prior decisions made in partial ignorance.

#### **2.4.1 Urban Sprawl**

One of the most notable problems facing urban planning is the onset of urban sprawls in most modern cities in response to the distribution of wealth and economic opportunities. By definition, urban sprawls refer to a migration phenomenon that involves the movement of the population from populous towns and cities to the preferred low-density residential areas. Such patterns of movement or relocation result in several significant challenges that include increased road accidents, environmental degradation, and subsequent repercussions, and increased public expenditure by the governing authority (Johnson 2001). The increase in public spending is a direct repercussion of the need for improved infrastructure and social amenities payable through taxation among other revenue generation streams. As populations migrate to other locations, the local authority must spend more public funds on providing essential services to the previous low-density regions. Additionally, the need for transport will slightly increase as the need for transportation between populated cities and the lower density regions continues rising leading to traffic jams. Finally, the environment is likely to experience significant changes as humans modify the low-density areas to meet their needs which could have a substantial impact on the environment (Johnson 2001) figure (2.4.1.1) shows the negative effects of this.



Figure ( 2.4.1.1 ) : Showing a large number of people on the course of their endeavors in New York which emphasizes the challenges that a typical modern city could face from the influx in population.( New York times 2009 )

Essentially, urban sprawl refers to the notable migration of human population from densely populated towns and cities in favor of low-density residential development and rural locations. Urban sprawl is a direct result of the increased population which lead to an increase in demand for housing as shown in figure ( 2.4.1.2 ) , such that people voluntarily move out of congested city centers to low population regions. As such, urban sprawl inadvertently helps the spreading of a city as well as its suburbs over rural lands as the human population continuously grows. Urban sprawl represents a challenge in the management and utilization of natural resources to meet human needs through different means discussed below. Urban sprawl could emanate from several factors that include low land rates, rise in the standards of living, improved infrastructure, the absence of proper urban planning, increased population growth, low house tax rates, and consumer preferences.



Figure ( 2.4.1.2 ) Showing the spread of Urban sprawl in Western Australia, where the urban population size grows exponentially leading to an increase in demands for housing among other facilities.( Ben Sykes 2018 )

According to Yue, Liu, and Fan (2013), lower land rates have a direct bearing on the cost of land and houses in the outer suburbs of the towns and cities which affect the realization of urban sprawl. The article further elaborates that low land rates in the suburb regions emanate from the low demand for land in those regions as compared to city centers and the immediately adjacent areas. The high land rates in the city center drive individuals who are unable to afford them to opt for land outside the city limits. In recent times, there has been an increase in budgetary allocations targeting the improvement of infrastructure. The increased spending targeting infrastructure such as roads and electricity, making previously undesirable becomes particularly appealing. The introduction of such infrastructure enables other individuals to move out and live comfortably in locations away from the populated city centers (Yue, Liu & Fan 2013). Another reason for the urban sprawl's increase is the rising standards of living that affect the average income per family. The rising standards of living imply that more people are

financially capable of paying more to travel from one location to the next for economic and social purposes.

According to Rosni and Noor (2016), urban planning is essential in mitigating urban sprawl to within acceptable and manageable levels especially in the context of immense population growth. A lack of proper urban planning mechanism opens up the possibility of unchecked urban sprawl as people look for areas with low human traffic. The preference for such low-density populated areas could lead to unprecedented development in the form of deforestation, haphazard construction of infrastructure, and pollution (Rosni& Noor 2016). As such, the lack of proper urban planning encourages urban sprawl by meeting the needs of individuals looking to migrate from populated urban centers. Urban sprawl could also arise catalyzed by lower house tax rates imposed on buildings in the outer suburbs of the modern cities. Modern day cities have higher taxes imposed on properties by the local governments which provide sufficient incentives for people to live in the outer suburbs. Continued preference for low tax areas will lead to a gradual spread of population from populated urban centers to low-density population areas (Rosni & Noor 2016).

The most popular cause of urban sprawl is the notable increase in population across the globe that increases the need for land use. A spike in population growth implies that the cities and towns become unable to meet the needs of its population within their borders or boundaries. Such conditions gradually lead to an increased preference for better living conditions outside the city limits without relocating too far from the city centers. Typically, the suburbs have more resources available, and the cost of living in such areas is significantly lower than the levels exhibited in the cities or towns. Oueslati,

Alvanides, and Garrod (2015, 1601) explore this cause as the most viable explanation for urban sprawl coupled with other economic factors in the modern day. The article further alludes to another factor that catalyzes urban sprawl in the form of consumer preferences that tend to lean towards the serene and less populated areas. The real estate industry experiences periodic shifts in consumer tastes which lead to an increased valuation of land and properties away from town centers (Oueslati, Alvanides & Garrod 2015). Such locations gain the pristine and posh tags that attract the interest of potential owners looking to move from the congested city life.

Consumer preferences hinge on the economic growth witnessed in a particular region that dictates the ability to purchase goods or commodities as the standards of living improve. The trends in the market indicate that the suburbs provide developers with a platform to construct luxury homes in expansive space available on the outskirts of the city that would not ideally be available (Oueslati, Alvanides & Garrod 2015). The luxurious homes are a product of increased demand by customers looking for properties that meet the particular needs of the population thereby establishing a new and steady market niche. Alternatively, other consumers might not like the congested apartment or penthouse format of modern-day buildings in the middle of the city or the town. Such individuals might prefer secluded locations with increased exposure to the natural environment, thereby causing a sharp increase in urban sprawl. Accommodating such consumer demands will undoubtedly lead developers and planners to pursue utilization of land outside the traditional limitations or boundaries of a town (Oueslati, Alvanides & Garrod 2015). Notably, consumer preferences shift frequently, depending on internal and

external factors in the growth and development industry as well as the economy in general.

The impact of urban sprawl cuts across society and manifests in several forms that include increased public expenditure, health issues, increased traffic, influence on human social life, as well as unforeseen environmental challenges. Urban sprawl exponentially increases the needs for infrastructure and buildings to meet the needs of the migrating population, which directly increases public expenditure accounts limitations (Oueslati, Alvanides & Garrod 2015). Usually, the money collected from tax-payers' funds the construction of the relevant infrastructure and buildings to meet the needs of the locals. Such infrastructure could be essential for the growth of the city or town in a social, political and economic sense particularly in the long terms. As the infrastructure improves, urban sprawl is likely to cause a significant increase in the traffic as the local population increases their reliance on the aforementioned infrastructural improvements. The infrastructure will inadvertently fail to efficiently meet the needs of the people leading to traffic jams and deterioration of the infrastructure. The article by Ahern (2013) further accentuates this point by alluding to the increase in population as the primary cause of the environmental issues facing humanity across the globe.

Ahern (2013) attributes particular environmental issues such as pollution, global warming, and desertification to the concentration of urban sprawl. The need for the development of previously uninhabited land leads to the destruction of vegetative cover and the manufacturing of goods with hazardous byproducts. The denigration of the environment under the pretext of meeting human needs creates a ripple effect that impacts the environment and the quality of human life in the long-term as shown in figure (2.4.1.3)

the increase of population leads to an increase manufacturing which leads to heavy industries. The disintegration of the environment in favor of conditions brought about by urban sprawl could result in social and health repercussions for the locals in those regions. The extensive use of vehicles creates health challenges through oil exploration, oil refinery emissions, and lifestyle diseases that affect the quality and well-being of human life Ahern (2013). Furthermore, the migration from one location to the other could create unforeseen social repercussions for the family and ultimately the community in its entirety. In that regard, urban sprawl is slowly morphing into an urban problem with overlying implications for the immediate environment and the global state of affairs. The arguments presented herein necessitate the introduction of proper intervention mechanisms to protect the long-term interest of humanity.



Figure( 2.4.1.3): Showing the extent of air pollution in parts of China where rapid industrialization has increased the risk of health complications through damage to the environment ( China 2014 )

## 2.4.2 Housing Affordability

Housing affordability is another notable challenge facing urban planning in the face of competition for natural resources (Bredenoord, Van Lindert, and Smets 2014). The exponential growth of the human population is directly responsible for the shortage of affordable and decent housing structure as shown in figure ( 2.4.2 ). The affordability of adequate housing structures depends on the housing expenditure, the economy, and transportation facilities. Each of those factors affects different stakeholders in the housing industry who in turn dictates the market rates imposed on homes and buildings for human use. The variations in such factors could help to explain the disparity in pricing imposed on particular portions of real estate perceived as luxurious. Similarly, the influence of each of the above elements could help to explain the dipping price index for specific properties in towns which contradict traditional principles on housing in the inner city as described by Bredenoord, Van Lindert, and Smets (2014). The article confirms that in previous years the inner city was a preserve of the rich and affluent members of society. In sharp contrast, the suburbs were a preserve of the middle and low-income families, but this trend is experiencing a reversal in recent years.



Figure ( 2.4.2.1 ) : showing dilapidated and low-quality mass housing structures typical of overcrowded urban centers where the urban centers are incapable of providing sufficient housing facilities for its residents.

Affordability depends on the changing relationship between house prices and rent value placed on housing units where extreme changes could create a housing crisis. Moreover, changes to the economy could have significant repercussions on the affordability of housing units where the possibility of mortgage arrears and housing debts lead to cutbacks on consumption and reduction in savings (Dempsey et al. 2011). The economy dictates the ability of the consumers to impose their tastes and preferences into the plans of real estate developers. A struggling economy is unlikely to render the right platform for the construction of trendy structures to meet the prevailing housing preferences. The impact of the economic disparity is visible in the difference between real estate markets in first world countries in Europe and third world countries in Asia and Africa (Dempsey et al. 2011). Ultimately, the affordability of housing depends on the economic factor explored in this section to dictate the patterns of settlement witnessed across the globe under different economic terms see figure (2.4.2.2) .



Figure (2.4.2.2) : showing the construction of modern-day housing units in China that are affordable and conducive for use by the increasing number of the population.

### 2.4.3 Transportation

The transportation industry is also likely to face negative repercussions in light of the lack of affordable housing units. The challenge lies in availing affordable labor for various businesses if the workforce is unable to secure proper housing units within a reasonable distance. The article by Dempsey et al., (2011) reaffirms the importance of social amenities and services in improving the appeal of a particular region or location to the local population. Such features dictate the price tag associated with properties from those areas such that areas with more features are likely to be more costly. Furthermore, there is likely to be an increased strain on the transport facilities by individuals who live far away from their workplaces as shown below in figure (2.4.3). The examples explored herein provide contextual reasons behind the burden of affordable housing and the need for urban planning. Urban planning will provide a safety net that will protect the interest of the inhabitants without necessarily jeopardizing their long-term sustainability. In hindsight, affordable housing goes hand in hand with other relevant infrastructural achievements discussed in this report.



Figure (2.4.3.1): Image showing the strain on transportation due to overpopulation in some area and population movements because of business and work ( Houston 2009)

## 2.4.4 Unique Environmental Site

Choosing the right environmental site for urban planning activities is a significant challenge that cuts across several disciplines and significant categories of urban planning. Every single city or town occupies a unique environmental site comprising unique environmental features. For instance, the environment in Sharjah is not similar to that in Cape Town, New York, Moscow or even Kuala Lumpur. The differences in the composition of the soil and rock formation affect the integrity of the foundation used for building structures with particular conditions, offering advantages and disadvantages. For example, buildings constructed next to large water bodies such as those in Dubai are likely to experience significant wind speed as compared to those in downtown Manhattan. As such, the buildings in Dubai must account for that difference in weather elements to ensure that it is safe and worthy of the needs of the locals in Dubai. Such changes to the core of the environment will undoubtedly influence the urban planning decision-making process to accommodate all human needs (Ahern, 2013, p. 1208) , one of the best example of a well-integrated landscape with the natural resources city of Ho Chi Minh see figure (2.4.4.1 )



Figure ( 2.4.4.1 ) showing the integration and adjustment adopted by the Vietnamese city of in building as per its needs with regards for the surrounding landscape and natural features such as the water body seen herein. ( Viet 2017 )

The topography also affects the possibility of the routes of transportation that is ideal for the specific region in question (Dempsey et al. 2011). The construction of roads and railroads depends on the topography of the region, which could leave the region at an advantage or a disadvantage. Having a reliable transportation system in place represents one of the most important factors that could catalyze growth and development for any given region. For instance, regions that have limited physical obstruction such as waterways, mountains or valleys minimize the cost of setting up electricity, internet connection, and transport to particular areas. Such areas are likely to experience urban sprawl at a higher rate given that they are favorable targets for urban development (Inostroza & Csaplovics 2013). On the other hand, areas that are physically intimidating features that could impede the construction of basic infrastructure will increase the cost of connecting such regions to the rest of the urban centers. Therefore, such areas are unlikely to become appealing or the burst in growth and development that other desirable regions might experience.

Additionally, the environmental site could dictate the ability of the town to access the waterways or airways, which are integral to urban planning exercises or activities. Physical obstruction or unfriendly climate would explain why some regions in Europe have a limited number of infrastructural undertakings despite their presence in countries with strong economies. Regions that experience cold weather such as that in the Arctic are not ideal for urban growth due to reasons discussed above that render the inaccessible or too risky (Inostroza, Baur & Csaplovics 2013). Such conditions could directly affect commercial operations in the affected region depending on several other economic factors. Finally, the environmental site could be essential in providing access to better

amenities which could directly affect settlement patterns and business choices in pursuit of profitability (Dempsey et al. 2011). The physical location of an environmental site is an essential part of the urban planning process due to the diverse repercussions it could have as discussed herein. The rate at which ‘favorable regions have experienced growth in recent years would explain while regions around New York have higher population growth as compared to Philadelphia or Missouri.

#### **2.4.5 The Segmentation of Parcels of Land or Individual Control**

The prevailing events across the world include the ownership of small parcels of land by individuals, business entities or groups of individuals with similar interests. Individual control or ownership of land is directly responsible for the construction of private homes or small-scale business premises. Such activities could depreciate the value of the land due to the opportunity foregone through the construction of high-end housing facilities and buildings. Additionally, individual control could deteriorate into the future conflict where the renovation of a shared portion is due, but the owners hold different opinions. Either condition is detrimental to urban development that alludes to an overlying problem of individual control on the value and use of land resources available regardless of the region in the world (Yli-Pelkonen & Kohl 2005). Urban development could suffer from such conditions that could result in the sub-optimal use of land regardless of its limited nature as discussed herein. The changes to the immediate environment as intended through urban planning might not take place if the individual owners do not consent to such changes. The alternative to the introduction of such changes would entail buying of the land from the owners, but this has the notable drawback of increased expenses.

## **2.5 The Importance of Urban Planning of Cities and Towns**

Urban planning is an essential tool for modern-day cities looking to optimize the use of all resources available to the location of choice as demonstrated in figure 2.2. Any decision undertaken regarding urban planning, in general, must account for the immediate environment, and the factors discussed earlier in this essay. In that sense, urban planning possesses notable significance to cities or towns regardless of their locations as discussed below. The importance of urban planning to cities or towns include positive repercussions for the economy, improved appeal to potential residents, improved disaster preparedness, regulating urban sprawl, optimizing the use of available natural resources, minimizing the damage caused to the natural environment, and finally Improving the quality of human life through increased economic performance. The significance of urban planning allows the city or town to implements plans that are sustainable and self-preservative or future generations of humanity.

### **2.5.1 Positive Impact on the Economy**

The most significant value of urban planning is the utilization of all available resources, including land, to meet economic goals or objectives. Urban planning oversees the allocation of resources dedicated to improving the economy of a particular region. Sharjah is unlike any other region in the UAE and the world when comparing its environmental factors and population demographics. Either element is integral to the contribution they make to the growth of the economy as the region competes on the domestic front as well as the international front (Lund & Skinner 2004). Urban planning would be integral in ensuring that the residents of Sharjah benefit from the economic activities in the region through improved social amenities, infrastructure, care services,

and employment opportunities. Each of these factors contributes to the overall growth of the domestic economy as the quality of life increases exponentially leading to several changes in the economy.

### **2.5.2 Improved Appeal to Potential Residents**

Furthermore, urban planning is likely to increase the appeal of the city to potential residents and expatriates looking for a better city to settle into as they pursue better living standards and job opportunities. The increase in the number of new residents is likely to surge the demand for land and proper housing facilities. In turn, this will lead to the increased value of land and decent housing structures that could have positive repercussions for the economy. Furthermore, the increasing number of immigrants is likely to increase the consumer pool and the human resource pool in the region. Either of those factors is essential to the growth of the economy from its current level to the next level with a step similar to trends in China and countries in the West (Wu 2015). Those countries benefit from mass consumption of their goods and services marked by the increased commercialization of their products. It is in the best interest of all involved stakeholders that a city undergoes extensive urban planning such that it becomes appealing to more of the potential settlers. In the end, such changes have an overlying connection to economic growth in the short-term and long-term as discussed herein.

### **2.5.3 Improved Disaster Preparedness**

Urban planning involves modifying the immediate environment in anticipation of adverse conditions that could jeopardize the economy, the environment itself and human life. The logic behind urban planning is to prepare the city or town to manage any arising risks and to secure human life as well as economic viability. The meticulous redistribution

of resources in anticipation for a catastrophe is essential in dictating how long a city takes to recover from a disaster. The city will also be prepared for perceivable shortcomings that arise from the onset of risk factors. Cities that display higher levels of preparedness are likely to increase their appeal to human settlement as they seek out such areas. The shift in population is likely to be accounted during the planning stage such that the resources will not suffer any significant or irreparable strains. Also, the disaster recovery plan will ensure that the urban city is capable of reviving itself from financial and human-made disasters within the shortest time possible. The housing and land rates are unlikely to suffer much loss should such events take place within the predicted time frame. Extensive levels of preparedness are likely to attract more individuals looking for affordable housing in the area, thus increasing the price of land and housing in the area (Tingsanchali 2012) a good practice from National Center for Disaster Preparedness (NCDP) shown in figure (2.5.3) .

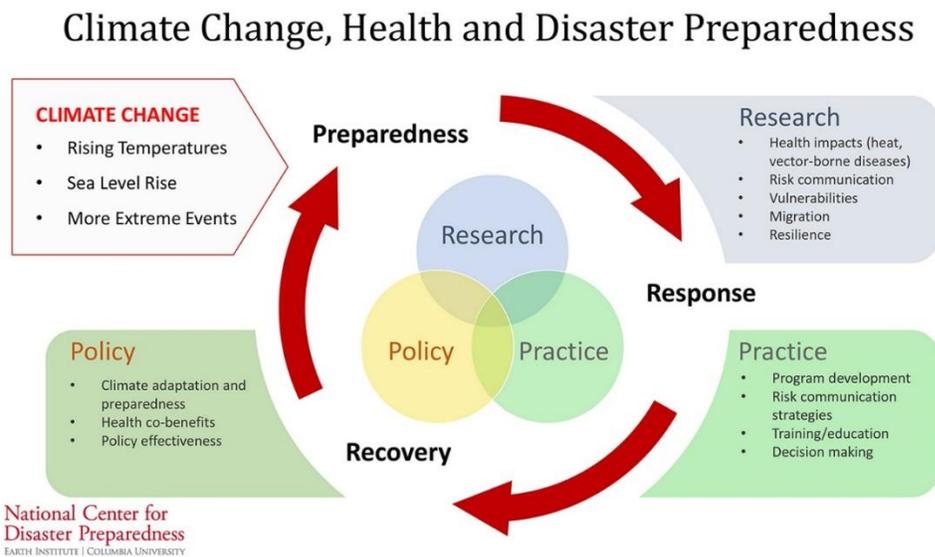


Figure (2.5.3.1): showing the need for introducing a disaster preparedness plan to anticipate and implement measures in place to help the urban center or region in recovering from disasters ( NCDP ELISAVETA PETKOVA – 2015 )

#### **2.5.4 Regulating Urban Sprawl**

Urban sprawl represents a significant challenge to humanity which could affect the long-term sustainability of the urban centers measured by their ability to meet human needs. Urban planning provides the cities or towns with a viable platform to control the spread of urban sprawl. The unmitigated occurrence of urban sprawl could have severe negative implications for metropolitan cities or towns regardless of the value of their resources (Sharifi et al. 2014). Controlling urban sprawl is beneficial because it serves as a proactive effort to ensure that the cities and towns are fully capable of satisfying the needs of the urban population. The absence of such a control mechanism will result in unplanned urban development. Urban planning optimizes the use of available resources in urban centers such that the need to migrate to a suburban location remains insignificant. The repercussions of controlled urban sprawl rates could have significant effects on the environment and the appeal of those cities or towns to potential residents (Sharifi et al. 2014). Urban planning accommodates the settlement patterns of the population by anticipating the needs of the people and using the available resources to match those needs. Ultimately, the ability to effectively regulate urban sprawl could have direct implications for the sustainability of a typical town or city in the face of fluctuating population numbers.

#### **2.5.5 Optimizing the Use of Available Natural Resources**

Typically, every major or minor urban center has access to natural resources albeit at different concentrations. For instance, some regions have significant access to oil deposits, fishing locations, natural gas, and mineral deposits among others. Such resources have a direct link to the standards of living in those towns through economic

developments in those regions (Sharifi et al. 2014). The exploration and exploitation of such resources will undoubtedly improve the economic viability of those towns or cities. The mismanagement of available natural resources could jeopardize the long-term sustainability of the city while attempting to meet the basic needs of its residents. Urban planning provides a suitable platform to optimize the exploration and utilization of available natural resources to ensure that wastage is minimal. Efficient use of available resources will result in improved economic performance and increased quality of life for the citizens of the town or the city (Sharifi et al. 2014). Such conditions could affect the distribution of the population in the town or city while significantly altering the appeal of the center to potential residents. As such, urban planning is essential in imbuing a city or town with tools to improve its long-term sustainability as discussed herein.

#### **2.5.6 Minimizing the Damage Caused to the Natural Environment**

Urban planning involves the introduction of measures or mechanisms that protect the natural environment and the natural resource reserves. Human activity on earth leads to the significant altering of the natural form of the environment is a process defined as pollution as shown in figure (2.5.6). The damage to the environment comes in different ways that include land pollution, water pollution, and air pollution (Dupras & Alam 2015). Urban centers are prone to inflicting damage to the environment. Urban planning accounts for the needs of human beings and establishes the most efficient means of utilizing natural resources while simultaneously preventing extensive damage to the environment. Urban planning prevents haphazard exploration of the natural resources that would deplete the limited natural reserves at a higher rate. Cities in highly industrialized countries experience smog that causes an array of health problems that affect the quality

of life of the residents (Dupras & Alam 2015). Such cities lose their appeal to settlers looking for a clean and friendly environment to settle or start a family. Ultimately, urban planning acts as a control measure that tempers human activities to within ideal and manageable levels.



Figure( 2.5.6.1): showing an Image showing the potential impact that human activity (in this case being petrol extraction) in exploring natural resources which resulted in the pollution of the environment in the image taken in Ecuador ( R.Buendia 2014 ).

### **2.5.7 Improving the Quality of Human Life through Increased Economic**

#### **Performance**

The natural resources available within the vicinity of a city dictate the economic performance of that urban center by influencing the job opportunities, business viability, and human settlement patterns. Each of the three factors dictates the economic performance of that particular region by the extent to which its productivity can translate to the desired economic repercussions (Hennig et al. 2015). Consequently, the city's authority must undertake all possible efforts to ensure the optimized exploitation of those

resources to meet the desired outcomes. Urban planning offers a platform to plot out and execute a precise plan that helps pursue economic goals for urban centers intending to improve the quality of human life. Ideally, a region rich in mineral deposits requires careful allocation of land for mining purposes while accommodating other human needs such as social amenities, access to health care, and quality education among other factors (Hennig et al. 2015). Increased economic performance, catalyzed by urban planning, will improve the standards of living for the locals and enhance the city's appeal to the rest of the world.

## **2.6 Sustainable Urban Planning**

By definition, sustainable urban planning refers to active, innovative efforts that cut across several disciplines focused on utilizing natural resources at efficient levels. Sustainable urban planning includes the use of green buildings, mixed-use development, greenways, green energy sources, and alternative transport options. Sustainable urban development must encompass all disciplines to ensure that the solutions offered are comprehensive in ensuring that the environment and the residents of a typical city benefit in the long-term. An effective, sustainable urban planning is useful in limiting the wastage of resources, particularly land use for commercial purposes. Additionally, sustainable urban planning serves as the control measure or ensuring long-term sustainability for humanity given the limited nature natural resources. Such practices are essential in improving the welfare of the residents and the communities living in the immediate environment (Grêt-Regamey et al. 2013). The efficient use of land and space is likely to affect the future growth of cities by dictating their potential for development. Sustainable urban planning is expected to have an impact on the environment, the occupants in the

immediate environment, and the economy as a whole. Such changes might be in the short-term and the long-term depending on the degree of sustainability pursued by the city planners and the relevant authorities.

The impact of sustainability on urban planning is likely to affect society on three different pillars, namely the environmental, economic and social fronts. Sharjah is expected to face significant changes in its immediate environment and the distribution of efficient building as the city follows through on the fundamental principles of sustainable urban development. From an economic point of view, sustainable urban development in Sharjah is likely to result in the significant changes to land availability and value appreciation or depreciation. The region is likely to attract employees from different parts of the country as well as expatriates looking to benefit from the improved aesthetic and financial appeal (Grêt-Regamey et al. 2013). Sharjah's economy has several distinct features of enterprise that include manufacturing, natural gas, tourism, healthcare, logistics, real estate, and business services. SUP practices will lead to optimal practices in the manufacturing, natural gas exploration, and the healthcare industry. The business services sector, such as logistics and real estate is likely to experience a stabilization effect in the long term as SUP takes effect. The manufacturing, tourism, education, healthcare, and real estate industries are likely to experience positive growth. The efficient use of resources allows Sharjah to grow and develop in line with its long-term growth and prosperity.

Sustainable urban planning is also likely to improve the real estate industry in the region by increasing the demand for decent, affordable housing to support the migrating population (Wolch, Byrne & Newell 2014). Sustainable urban planning for land use and

affordable housing will create a real estate boom as the value of land appreciates exponentially in line with the growth of the economy. The land is an inherently limited commodity whose needs are intrinsically infinite particularly in the face of urbanization and increased human population growth. The boundaries that differentiate Sharjah from the rest of the surrounding regions and the world cannot expand further. As such, it is ideal to utilize sustainable urban planning to temper changes in the region to ensure the value of land improves drastically (Wolch, Byrne & Newell 2014). Such changes will ensure the optimal use of and for various purposes and needs of the local population, which will inadvertently raise its value to the locals and potentially interested groups.

Land that falls under the attractive prospect category is likely to lead to increased demand by able buyers looking for prime land (Malekpour, Brown & de Haan 2015). Naturally, the topography of the city provides a stable foundation for judging the value of the land where aesthetics places a significant position regarding the valuation of land in Sharjah. The appreciations of the value of land will likely lead to clear repercussions for the immediate environment. The most notable outcome will entail the increasing number of luxury land units in response to the demands of the population. The segmentation of the land into high value and low-value sections is likely to be the main catalyst for such changes which could run into the long-term future. Land that falls under the attractive prospect category is likely to lead to increased demand by able buyers looking for prime land (Malekpour, Brown & de Haan 2015).

Furthermore, the changing price valuation of land in Sharjah is likely to lead to urban sprawl as discussed earlier in this report. The affluent members of the society are expected to increase their interest in land with the exotic appeal within Sharjah turning

them into private homes. Such individuals will purchase the limited land allocated for that purpose through the sustainable urban planning program explored in this essay (Zhang et al. 2016). The sustainable urban planning conforms to future demands of the population by regulating the current use of land and related land resources available within Sharjah and the adjacent regions. The planned land use will also deliberately depreciate the value of land in regions perceived to be undesirable by the majority of the population. According to Zheng et al. (2015), the most attractive land pieces will likely belong to wealthy members of the society who will oversee very little, if any, commercialization efforts. On the other hand, lands with medium demand will likely result in the establishment of towns or cities to serve the needs of its inhabitants. Thus, the development of the entire region hinges on the division of land according to the levels of popularity they exhibit to different economic classes.

The development of modern cities or towns is likely to be the prominent result of the changing valuation of land in the same region. A significant portion of the region is likely to develop into modern-day towns or cities as alluded to earlier in this report. The increasing interest in the region is likely to result in an increased number of inhabitants living in the region. The increasing population figures will likely lead to a significant shift in settlement of the citizens in the region. An increasing number of individuals will move from perceived rural areas in pursuit of city life (Malekpour, Brown & de Haan 2015). The size of the city will increase at a steady pace as the town or city becomes appealing to the mass population. In hindsight, the size of the city or town depends on the number of individuals who display a growing affinity for the city. Naturally, the increasing population size will directly affect the employment patterns in the region as more

individuals move to the city. Consequently, the economy of the region will experience a positive change only if the immigrating individuals can achieve employment status.

Sharjah is also likely to face significant changes to its social structure that includes several factors such as income distribution, religion, healthcare and the provision of other essential services. Income distribution is likely to become more uneven as more individuals move to the city in pursuit of a better life compared to their previous locales (Wei et al. 2015). Income distribution depends on the qualifications of an individual as well as a host of other factors depending on the chosen profession. It is likely to dictate the ability of the locals to purchase essential items that complement their lives as citizens of the selected region. On the other hand, the inability to buy essential commodities will lead to sub-par social growth and development for the citizens. The distribution of income will affect the quality of life that any typical individual enjoys by dictating the amount of luxury that they can partake (Wei et al. 2015). The distribution of income will directly affect the ability of the average population to purchase luxury commodities as well as low-end properties. Overall, the purchasing power of the population hinges on the income distribution which in turn affects the social aspect or realm of life for the citizens of Sharjah.

Furthermore, the second pillar of sustainability is likely to face significant shifts in the realm of religion and healthcare as sustainable urban planning takes root. The sustainability of the region hinges on the sustainable urban planning program put in place where the two factors mentioned will change accordingly (Wu et al. 2015). The Sharjah region is predominantly an Islamic region, but this fact could change dramatically if sustainable urban planning takes place. For instance, sustainable urban planning is likely

to improve the appeal of the region to individuals from different religious backgrounds leading to a dilution of the current homogenous composition of the population. Furthermore, the changes to the region instigated by sustainable urban development will likely result in an increased need for healthcare services for the immediate population. The demand for several social amenities will inherently increase as the region becomes increasingly appealing to different individuals from within Sharjah and the entire globe. Such changes will become necessary for the population to enjoy a distinct level of quality of life within the region's borders that is sustainable in the long-term (Wu et al. 2015). The absence of such factors could play a counterproductive role in driving away potential inhabitants in the region regardless of the economic growth patterns.

The final pillar of sustainability is the environment which refers to the ability of the region's ability to cater adequately to the needs of its population for a prolonged period. The implementation of the strategic urban planning in the region will affect the extent of exploitation imposed upon the immediate environment. The current population is well within the optimal levels in comparison to the number of natural resources available in the region. Sustainable urban planning is likely to allocate significant portions of the available resources to meet the various needs of the population (Zhang et al. 2016). The limits imposed on the resources allocation indicate the logical constraints imposed to ensure optimum utilization that cuts down on overexploitation and waste of resources. The absence of such contravening measures will expose the region and its citizens to long-term complications and hostile environmental factors. The environment is susceptible to change depending on the level of pressure imposed on it by human activities (Wu et al. 2015). Strict adherence to the sustainable urban plan will reduce the

possibility of the region descending into a catastrophic utilization of resources that will affect the quality of life for the inhabitants.

### **2.6.1 The Effect of Sustainable Urban Planning on the Economy**

The economy of Sharjah is likely to face significant changes in light of the implementation of sustainable urban planning for its long-term future. The optimization of the available resources in the region will likely propel it to be among some of the most appealing regions in the world. The economic facet that is likely to face the most impact is the entrepreneurship aspect of the economy where sustainability policies are likely to be preventive or appealing. The economy will prosper in a setting where entrepreneurship and sustainable urban planning have similar objectives. Such instances occur when entrepreneurs work within the rules and regulations imposed by the governing authority over the use of available resources to meet the needs or demands of the citizens (Yigitcanlar & Teriman 2015). The economy will operate within optimal levels under the condition that neither the natural resources, nor the accrued demands of the citizens experience a sudden and significant shift. In the event of such changes will ultimately lead to a catastrophic decline in the economic performance of the region and its environs.

Sustainable urban planning's main point lies in the optimization of the resources available to humanity regardless of the location or the region. Sustainable urban planning boasts of a unique ability to thrive on the minimal utilization of the resources available. However, urban planning does not aim to provide long-term stability (Yigitcanlar & Teriman 2015). Ideally, urban planning would cover the arrangement of structures and amenities necessary for the urban lifestyle. Sustainable urban planning is more in tune

with the long-term impact of current actions. Urban planning focuses on guiding plans for the immediate future under the assumption that the resources used at present will be present for future generations to exploit. On the other hand, sustainable urban planning does not make similar assumptions, but protects future generations nonetheless. Without sustainable urban planning, the current prevailing situation is likely to get worse down the road as the wastage of non-renewable resources continues unabated. Urban planning merely optimizes the use of resources for the period where the focus is on land use for economic purposes (Yigitcanlar & Teriman 2015). Sustainable urban planning transcends such limitations by focusing on the wholesome needs of humanity and the environment through the three pillars described herein.

### **2.6.2 The Impact of Sustainable Urban Planning on Land Property and Markets**

The implementation of sustainable urban planning in any given region is likely to create a myriad of repercussions for the immediate environment. The impact of such an approach will cascade across social, economic and political realms and the consequences will affect the adjacent region. Sustainable urban planning involves the incorporation of knowledge from multiple disciplines to ensure the optimization of the resources used in the construction of metropolitan cities. The introduction of sustainable urban planning in any given city involves setting in motion development that meets the requirements of the modern day. Such an approach demands one particular caveat in the development efforts that will not put in jeopardy the inherent ability of future generations to meet their needs. Different scholars and experts have addressed the use of sustainable urban planning to improve the quality of life at present (Rosales 2011). The said literature sources provide documentation of better land use and its impact on natural resources for the designated

region. Thus, the information presented herein documents the effects of sustainable urban planning on the value of land in the long-term.

## **2.7 Quantifying the Impact of Changing From Urban Planning to Sustainable Urban Planning on Land Prices**

The value of land, subject to sustainable urban planning, depends on several factors within the vicinity of the target region. The principal means of measuring the value appreciation is through its economic value from prior years to the present years for various residents of the designated area. Rosales (2011) argues that the value of land is likely to rise in the form of market rates. The article points out the fact that sustainable urban planning allows the city planners to dedicate land to the particular needs of the modern-day society. Typically, human needs cut across different aspects depending on several factors that the article does not address adequately. The use of monetary valuation of land is likely to be the most suitable means of measuring the impact of sustainable urban planning. The real estate and business services sector in Sharjah contributes approximately 23%, while the figure amounts to a total of 12.2% of UAE's GDP. The trend has been on a positive trend for the last few years punctuated by the compound annual growth rate of 12.8% (Mahmah, and Kandil, 2018). Naturally, the inclusions of sustainable urban planning intervention methods will likely lead to the categorization of land into particular units for designated use. The designated use will determine how desirable the land resources available to the local and other individuals looking to purchase land will be.

Bulan, Mayer, and Somerville (2009) state that the ideal means of measuring the impact of sustainable urban planning (SUP) on land prices would entail focusing on the

trends in real estate within a particular region. The article identifies real estate as an indicative factor of how much the industry values land from one specific region over other parts of the country. Naturally, real estate prospers in areas of high interest and massive needs of the population for decent and affordable housing. The rising needs of the population will likely lead to increased calls for the construction of housing facilities to meet those needs efficiently using the principles of SUP. The absence of SUP intervention will likely lead to the indiscriminate use of natural land that could put in jeopardy the inherent ability of future generations to cater to their needs. The ideal allocation of land for housing purposes based on sustainable urban principles will lead to an increase in the valuation of real estate facilities. Ultimately, the value of land that will hold the housing units will experience exponential growth as long as the region maintains its economic viability.

The sentiments expressed herein are further explored by Krause and Bitter (2012) who target the real estate industry as one of the key catalysts for population growth. The article argues that the increased settlement in particular regions will create the opportunity for other businesses and social activities by human beings. Such changes will increase the strain on the available land resources as it struggles to meet the needs of humanity. The limited nature of the non-renewable resources will lead to the increased valuation of the little amount available for consumption in the long term. The article by Krause and Bitter (2012) provides a logical connection between the limited amount of land and the infinite number of uses that humans hold which inadvertently lead to an increase in the valuation of land. The scarcity of the product is the chief catalyst for increased value as people struggle to gain access to the land for different uses. In such instances, the land

becomes a crucial element in the social, political and economic sense where a higher price provides very little deterrence for potential buyers. In such instances, individuals with higher purchasing power are likely to have higher opportunities for buying land.

The essential nature of land as a limited resource is an area of particular interest to city planners as it entails the detailed analysis to determine the zoning of areas. These are residential and industrial zones that must be accommodated in the plan to avoid the unnecessary or poor planning and foster a structured urban setting. The case of Sharjah is not different as the same principles apply to it. The governing authority has set out a clear plan coupled with earmarked areas for future expansion. Thus, sustainable urban planning emerges as a critical area of concern for Sharjah with its potential benefits being the desired outcome. However, other undesirable outcomes accompany the clamor for sustainable urban planning. With the benefits of urban planning comes the inherent factor that is urban sprawls that is a constant feature of urban areas. Also, the rising cost of land is another potential concern for sustainable urban planning. Sharjah is typical of such a metropolitan area and will be impacted in a myriad of ways as more citizens move from rural areas to the city center thereby straining the available resources and instigating urban sprawl.

The views expressed above are reminiscent of those discussed by Filatova, Parker and Van der Veen (2009) about urban sprawls as populations move from low-density regions or areas to urban centers. Their continued migration into the city compromises its sustainability leading to the need to expand the city's boundaries to accommodate the burgeoning population. The urban sprawl is a good measurement option for those looking to ascertain the value of land and the possible changes over time. The urban sprawl setup

is indicative of the shifting perception of land by the population. Sustainable urban planning is likely to account for the pressure imposed on the land resources by modern-day societies. Changes to the demography of the adjacent land will likely lead to urban sprawl as more individuals choose to move to rural or low-density regions. Such trends will contravene traditional migration patterns that saw individuals move to towns and cities in search of better living conditions. The urban sprawl is indicative of the rising value of land in low-density areas by making such regions desirable to human beings for different purposes. Moreover, the urban sprawl will also dictate the nature of sustainable urban planning efforts to promote optimal use of land in city centers as well as the adjacent low-density areas (Filatova, Parker & Van der Veen 2009).

In the context of Sharjah, changes in the value of land will only occur if the region's population redistributes adequately to match the available resources. However, the region is also susceptible to another factor in the form of its regional politics and its stability. The article by Li, Wong, and Cheung (2016) details the central role of politics and regional stability in dictating the amount of progress recorded. Decisions by residents and business entities regarding their desire to relocate to an area hinge partially on the political climate of the region. Typically, volatile regions often disintegrate into high levels of insecurity which does not endear a region to residents and business organizations (Li, Wong & Cheung 2016). Consequently, such volatile regions will experience a substantial devaluation of the land and property prices as the potential consumers deem the area too risky. Different instances in the Middle East and Africa that experienced civil strife and the hostile political climate put off investors and the locals from moving to particular locations en masse (Li, Wong & Cheung 2016). The drop in demand has a

bilateral impact on the price of land where diminished demands force the land and property owners to adjust their rates to accommodate the security risk attached to those properties.

The implementation of sustainable urban planning in place of urban planning is likely to impact the market economics of the immediate region. Urban planning is essential in developing platforms to improve the current state of the economy of the target region. Such plans might not necessarily account for the future of the economy or the social well-being of the target region because urban planning does not focus on sustainability. On the other hand, SUP offers the possibility of improving the current state of living with a view to sustaining it for the long-term future. Measuring the changes incurred in the implementation of SUP in place of urban planning involves juxtaposing the attainable results across market economics. According to Agudelo-Vera et al. (2011), sustainable urban planning guarantees the market economy long-term viability through optimizing the consumption of non-renewable resources. Therefore, any subsequent changes will likely include subverting any wastage of resources with a focus on the future. Such changes will mainly bring significant changes in land use, product availability, shifts in market demands, and improved overall economic performance.

Changes from urban planning to sustainable urban planning will include the systematic use of land in active areas where designated portions of land will serve distinct purposes. The core theme of land use in sustainable urban planning is ensuring the preservation of sections of the land for future use. Such an outcome is only attainable through the optimization of current land use practices to ensure that they meet the demands of the current population. The article by Agudelo-Vera et al. (2011) suggests

the construction of standard housing units that optimize space in line with the desire to minimize the unrestricted use of land for real estate. The attainment of this goal will translate to decent and affordable housing for the citizens without necessarily stunting the growth of the economy. Additionally, such an approach will ensure that the current population will benefit from undisrupted economic and social growth. The improved land use practices will also impact other industries such as the transport industry, and the agricultural sector, among other services provision industries. In the end, the overall change wrought by sustainable urban planning is positive for human life across Sharjah and the adjacent regions in the UAE.

Naturally, the introduction of sustainable urban planning will affect the ability of the industries and manufacturing firm's ability to provide the population with access to goods or even services. The SUP implementation will create the ideal production scenario that optimizes the use of raw materials available from the environment. Currently, the Earth faces the distinct challenges of food security that results directly from the misuse of current resources, changes to the environment and unmitigated population growth (Madlener& Sunak 2011). The ideals propagated by sustainable urban planning focus on limiting the possibility of a mismatch between the demand and supply for essential as well as luxury commodities. Urban planning is likely to match the current needs of the population without a contingency plan in place for future changes. The unique shortsightedness in such a plan will jeopardize human existence in Sharjah and the adjacent regions in the near future. Consequently, the introduction of sustainable urban planning intervention mechanisms will likely lead to significant shifts in industrial processes that aim at providing essential commodities for day-to-day use (Madlener&

Sunak 2011). In hindsight, the ability to provide adequate and quality products for the long-term is an absolute measure of the impact of changing planning methods.

Another plausible means of measuring the impact of changing from urban planning to sustainable urban planning would involve documenting the notable shifts in market demands. Currently, the planet is undergoing a gradual change in trends for ecologically sensitive undertakings that provide safe products for consumption (Lin & Huang, 2012). Such an initiative aims to protect the environment while delivering products that meet universal safety standards for human consumption in the long-term. Measuring the impact of shifting involves differentiating the products from the previous planning schemes to the current products of the sustainable approach. The notable changes in market demands for healthy and green products will also cut across several other industries that include housing and harvesting of natural resources. The current trend in the housing industry, which involves green housing practices, is a testament to the impact of sustainable urban planning that protects the environment while improving current life quality. The protection guaranteed for the environment ensures that future generations do not face the prospects of living constrained lives impeded by limitations on resource availability (Lin & Huang 2012). In the end, SUP will likely make alterations to daily operations of the market demand with the viability of the future as the ultimate goal.

Shifting from urban planning to sustainable urban planning might have the unintended impact of modifying a country's international relationships. Nanda and Pring (2012) argue that different countries across the globe have wide-ranging needs for their people which influences their international policy. The international relationship between

one country and the others depends on the alignment of the objectives of the involved nations for the future. For instance, countries that are actively pursuing green energy with a view to conserving the environment might not intermingle with countries that do not. Typically, policies on green energy pursuing nations might encourage the introduction of a particular mechanism to protect the environment while sustaining the needs of the current generations. However, other countries that do not adopt the same policies will constantly contradict the green energy policies leading to strained international relationships (Nanda and Pring, 2012, p. 90). As such, a change from urban planning to SUP will create grounds for disagreements and disruption of international congruency. Thus, the changes noted in the international relationships could quantify the impact of the adoption of the sustainable urban planning over urban planning in Sharjah or other parts of the UAE.

The ultimate means of quantifying the changes inflicted by launching the sustainable urban planning approach is the changes to the performance of the economy in the short-term and long-term. The ideal economic performance would involve an improvement in various factors or aspects of the economy such as low unemployment, increased consumer purchasing power, access to better healthcare, improvements in the transport industry and improved industrial performances (Chittithaworn et al. 2011). Such changes are likely to result directly from the introduction of SUP that optimizes the consumption of resources in pursuit of meeting human needs. Sharjah engages in numerous economic activities that distinguish it from the rest of the UAE and ultimately the entire world. The introduction of SUP will help the region to optimize the use of human resources in tandem with naturally occurring resources to meet the economic

obligations of Sharjah to the rest of the world. The repercussions of such an outcome will trigger a direct change in the economic factors listed herein which will be indicative of an improved overall economic performance (Chittithaworn et al. 2011). In the long run, such changes will enhance the present while advertently protecting the future generations' ability to prosper on Earth.

The information presented in the preceding paragraph affirms that the healthcare and manufacturing industry are likely to experience significant growth in the event of the adoption of SUP. The introduction of SUP intervention mechanism will likely lead to better use of resources or the healthcare industry as the involved groups optimize their participation to minimize waste while conserving any non-renewable resources. The same logic applies to the manufacturing industry where the manufacturing firms will look to meet their objectives within the accepted constraints of operations. The article by Hollands (2008, p. 316) affirms that the notable changes to both industries in the event of the introduction of SUP represents a noteworthy means of measuring the impact of SUP. Additionally, other economic activities such as mining crude oil and natural gas that makes up the majority of approximately 5.7% of the primary sector's contribution to the GDP. The manufacturing sector accounts for around 17.1% of the total secondary sectors from Sharjah's GDP (Rizzo, 2014). The changes to either industry will be indicative of the extent of influence that sustainable urban planning adds to either industry in the long-term while simultaneously influencing other aspects at present. The impact of such changes will likely affect the economy of the particular region of implementation because either industry directly links to crucial economic activity. Therefore, changes to the

production quotas, health targets, and overall industry satisfaction are plausible means of measuring the impact of SUP on the economy and the society.

## **2.8 Main Factors That Affect Land Prices**

### **2.8.1 Allocation of Land for Construction of Infrastructure**

The most common use for land is the allocation of particular land parcels for construction of infrastructure that caters for transport facilities from one region to the other. The article by Mačiulis, Vasiliauskas, and Jakubauskas (2009) affirms the centrality of transport to different economic activities essential to the improvement of the quality of human life. The use of land to provide transport facilities helps to spur human activities along the transport facility as well as in the two regions being connected. The connection between the two areas offered by the construction of the transport facilities will increase the ability of that region to conduct business

### **2.8.2 Accessibility of Particular Regions**

Ideally, transportation implies increased connectivity between two distinct regions for different economic, political and social purposes. Connectivity offers the possibility of transporting human resources, raw materials and finished product from one region to the next within an allocated budget limit. The transport industry allows private citizens to move from one location to the other as they pursue different business activities or personal undertakings. Areas suffering from low connectivity are likely to be less desirable for business and private homeowners as evidenced by modern-day settlement patterns in major towns and cities (Mačiulis, Vasiliauskas&Jakubauskas 2009). Such areas are likely to exhibit low land prices in response to the little interest from the general

public as postulated herein. The logic behind such trends would justify the introduction of better transport facilities in different parts of Sharjah as part of the catalyst for development and growth (Mačiulis, Vasiliauskas&Jakubauskas 2009). The construction of infrastructure to provide transport infrastructure within Sharjah will likely increase interest in the land in the region leading to a gradual increase in land prices. Such extensive changes to the region's geography will inadvertently improve land prices as part of the sustainable urban planning approach , A very good example of extensive road network as shown below in figure (2.8.3.1) which can be adopted based on the cost , population size and employment rate which dictates the need of more connectivity between cities .



Figure(2.8.2.1): showing a sample of extensive road network that provides a stable connectivity system for the modern day urban centers with exceptionally high population sizes that translates to higher demands on the natural resources (2013 )

Apart from the construction of road facilities other means of transport could further improve the value of land in any region. Tong et al. (2013) argue that the

availability of alternative means of transport helps to minimize the strain imposed on a single transportation facility. The reduced strain will help reduce breakdowns, maintenance costs, and inconveniences caused to its regular users of the transport system. A diverse transport system will further improve the value of land for both business and private citizens who utilize such facilities to satisfy commercial and private needs (Tong et al. 2013). Ideally, proper infrastructure should account for the needs of the heavy commercial vehicles as well as residents who rely on bicycles for mobility as part of the diverse target population (Wu 2015). Ultimately, the allocation of land for those particular purposes will improve the appeal of the adjacent land as well as buildings constructed in the vicinity. The desire for economic growth in Sharjah could have adverse effects on the natural resources available in the region if left unregulated by the viable methods brought about by sustainable urban planning mechanism thereby reemphasizing its importance.

### **2.8.3 Access to Social Amenities**

One of the core drivers of decision making regarding settlement is the proximity and access to social amenities such as schools, hospitals, roads, and leisure locations. Such facilities are essential to the growth and development of an ideal society which suits the needs of an average family as described by (Perin 2014). The same principles apply to Sharjah such that the presence of such facilities will serve as attractive features to draw the interest of the public to settle in the region. Making such changes will appeal to both the local population as well as the foreign population that makes up the body of expatriates residing in the UAE. For instance, schools and leisure locations such as parks are appealing to young a family that typically consists of young children and youthful

parents. Such individuals could benefit from the services from the leisure parks as well as from the education offered in the schools. The hospital will guarantee access to essential medical care that directly connects to the quality of life that the families and residents of the regions live (Perin 2014). The presence of such facilities will increase the appeal of the region thereby increasing the land prices over a continuous period.

The article by Albouy (2016) support the argument by pointing out that modern-day human needs revolve around the accessibility of such social amenities. Such amenities dictate the ability of an individual to perform their role in society as a well-adjusted member of the community. Albouy (2016) argues that society is incapable of functioning at optimal levels if schools, hospitals, and leisure parks are absent regardless of the presence of other ideal commercial factors. Essentially, the article is alluding to the need for the presence of elements that appeal to the social facet of human existence as opposed to purely commercial reasons. Therefore, the land value will increase primarily due to the presence of social amenities that service the needs of the people as well as the increased demand for such facilities in the area. Sustainable urban planning identifies the mismatch between the available natural resources and the need of the public particularly over the social amenities that are essential to quality human life. Implementing SUP ensures that the available natural resources are carefully managed to sustain the needs of the public and the future generations.

#### **2.8.4 Security and Political Stability**

The current situation across the globe identifies security as one of the leading factors under consideration in the valuation of land regardless of the location (Un-Habitat 2012). Ideally, security involves reduced or low potential for physical harm to property

or human life by malicious criminal activity. The safety of any particular area affects the decision by residents to live in that area or even secure employment opportunities within that area. Furthermore, families are unlikely to relocate to regions experiencing significant security lapses since such environments are not ideal for starting or raising families. The same logic applies to entrepreneurship practices that rely on the level of security to guarantee the stability of any business venture in the long-run (UN-Habitat 2012). The level of security directly connects to the process of valuation of land where regions of high security are less desirable hence their low estimate. In that sense, it is essential that sustainable urban development includes measures for the provision of adequate security while attempting to improve the land prices in Sharjah. Low interest in the region due to insecurity will achieve the opposite of the desired outcome by driving away potential residents and investors.

The arguments made for security in this report mirror those that apply to the ability of a particular region to assure the potential residents of the political stability at present and in the long-run. Political stability is essential in ensuring that a region will maintain its current state of growth or improve upon it in the near future. Naturally, volatile areas are unlikely destinations for business entities as well as private homeowners because of their preference for security and stability. That logic is mainly justified by the recent lack of development in the politically unstable regions in Europe and other areas of the Middle East as documented by several United Nations reports (Un-Habitat 2012). Such regions are still undesirable regardless of any headway made in improving their political climate and the resulting security concerns. The most notable casualty of political instability is the valuation of land in those regions that are significantly low. The introduction of SUP

measures will help to stabilize the land prices by implementing a constant factor that dictates the changes in land prices in urban and rural areas in Sharjah. The land prices in such areas are in stark contrast to land in stable parts of the world which are conducive to human settlement and establishment of business enterprises. Ultimately, it is important to establish mechanisms to ensure that political stability remains a priority for SUP.

### **2.8.5 Government Involvement**

Often, the prices of land in a particular area depend primarily on the government involvement through policy implementation and enactment of laws. Naturally, the government holds power over the boundaries of one specific region depending on the system of leadership in place as postulated by Dachis, Duranton, and Turner (2011). The government in place might enact particular laws that dictate the use of land in specific parts of the country to meet the needs of the general population. The choice of the government might affect the price of land in instances where the government puts in place restrictions regarding the access to specific regions. Land prices in such areas are likely to shift downwards as the restrictions take effect. Furthermore, the government might put in place policies that prevent business owners or private homeowners from purchasing land for reasons unknown. Such action ensures that the government has indirect control over the purchase of land within its jurisdiction under the guidance of the incumbent leadership (Dachis, Duranton & Turner 2011). As such, the land prices depend mainly on the choices made by the administration that constitute the government that exercises authority in the particular region.

The government could also have an impact on the land value through the use of tax rates for particular parcels of land within strategic locations. One of the causes of urban

sprawl discussed in this report indicated that land outside the city limits had substantially lower land rates compared to land within the city center (Dachis, Duranton & Turner 2011). The government through local authority platforms can levy land tax rates on land in particular regions as a means of encouraging or discouraging land purchase. The tax rates imposed on land in the city center are unusually high which prompt the landowners looking to dispose of such land at higher prices. In sharp contrast, land found in the outer limits and the suburbs of the city or town has low tax rates which allow the owners to dispose of such land cheaply (Dachis, Duranton, and Turner 2011). SUP offers the government a plausible tool to influence their circumstances around Sharjah and particularly in the UAE in line with its objectives to the public. The government could structure its intervention measures such as taxation and legislation to align with the SUP objectives thereby directly affecting land prices.

### **2.8.6 Distribution of Natural Resources**

Naturally, the distribution of natural resources does not hinge on external influencers which would explain the disparity in natural resource allocation across the globe. The differences in size or quality of the deposits of natural fuel and climatic conditions dictate the level of advancement recorded in recent years. Bjorvatn, Farzanegan, and Schneider (2012) argue for this point by postulating that particular countries with better natural resources allocation have the edge over relatively devoid nations. The article further points out the vast deposits of oil and natural gas in parts of the Middle East that is responsible for a considerable portion of the economy. In that sense, the presence of significant amounts of natural resources could factor into the overall prices of land in particular areas of any given country (Meyfroidt, Lambin, Erb,

and Hertel 2013, p. 444). That fact holds true in intensive agricultural economies where fertile land with suitable climatic conditions holds more value compared to other locations. Value emanates from the ability of the land to provide agricultural products that could be sold at a profit (Bjorvatn, Farzanegan& Schneider 2012). Such sentiments provide contextual information regarding the performance of global economies as land value appreciates in resource-rich nations. Furthermore, similar conditions increase the demand for sustainable urban planning initiatives which accounts for the non-renewable nature of natural resources.

One of the main economic activities that could influence the value of land in any particular area is the size of the deposits of exploitable natural resources such as gas or petroleum. The United Arab Emirates contains a significant quantity of oil deposits much like other countries in the Middle East according to Stevens (2008). Such nations operate their economy based mainly on the products and services related to the exploitation of the said oil reserves which further enhances the value of the oil deposits. Such reserves provide the much-needed income for the population and the economy as well as influencing the price of land. Stevens (2008) argues that the presence of oil deposits in the Middle East is responsible for much of the change witnessed in the region. Countries with immense oil reserves have much more impetus or growth and development which inadvertently improve the prices of land. Furthermore, the value of the land that holds such reserves is likely to increase in response to the demand for oils products. Ultimately, the price of land is expected to rise in Sharjah in areas where the oil deposits are pronounced as compared to other low deposit regions.

While some of the locations addressed herein are laden with impressive deposits of naturally occurring substances, the same logic does not apply universally. Some regions possess better climatic conditions or soil structure that encourages different social and economic activities. Such regions exhibit a higher disposition to perform better at specific social or economic-related activities as compared to the rest of the region (Meyfroidt, Lambin, Erb&Hertel 2013). For instance, particular locations have the distinct ability to sustain a proper fishing industry due to the climatic conditions accompanied by the presence of a vast water body. Other regions might be better suited for setting up manufacturing industry to explore and exploit the raw materials necessary for the production of essential products. As such, the value of land depends on the natural value it possesses by a measure of the products it could provide humanity through specific production processes. In Sharjah, the distribution of natural resources, in particular the oil deposits, directly dictates the nature of the SUP implemented in the region in line with the desired economic outcomes. Sustainable urban planning that accounts for the weather, and ultimately the climate.

## **2.9 Implementation of Sustainable Urban Planning**

The presence of urban planning intervention mechanisms could well affect the land prices within a particular region as it dictates land use by private investors as well as the general public. Plausible urban planning allocates specific use for certain land parcels which could affect the price of land in the long term. The inclusion of reasonable and attainable planning mechanisms will determine the cost of land in a particular region depending on its ability to sustain the needs of future generations. Newig and Fritsch (2009) argue that daily human activities are likely to devalue land by stripping off the

rich deposits of natural resources that increase a parcel of land's appeal to potential buyers. The careful management of the resources therein is likely to improve its appeal to buyers in the future as its value continually appreciates depending on the demands of the local population. Furthermore, the improved use of land resources could boost the economy leading to higher income for the population which inadvertently increasing the population's purchasing power (Newig & Fritsch 2009). Moreover, a higher purchasing power will create the perfect market conditions for competitive pricing of land based on a positive gradient of price growth for real estate and land.

Currently, the city of Sharjah has different uses of land to meet the needs of the people, the business community, as well as the demands of the local authority. The city houses the main administrative and commercial centers implying that government offices, regional business headquarters are within the city limits (Maimaitiyiming et al. 2014). Portions of land in the city center serve the primary purpose of housing the essential personnel working administrative and commercial jobs. The land division also includes the notable number of cultural institutions that include museums driven by the predominantly Muslim population. The city also plays host to two distinct landmarks in the form of popular marketplaces known as souks that operate based on Islamic designs (Maimaitiyiming et al. 2014). Additionally, the city has a significant amount of the land dedicated to recreational areas and public parks as some of the social amenities available. The public parks provide a location for the population to engage in non-official employment activities and relax with their family members (Maimaitiyiming et al. 2014). There are many mosques within the city limits to mark Islamic religion in the area such

that, as such the mosques provide the population with a platform to freely practice their faith.

Sustainable urban planning should accommodate such intrinsic factors in making decisive choices that could improve the aesthetics of the city and its adjacent areas. The article by Geertman, Toppen, and Stillwell (2013) suggests that sustainable urban planning must account for all unique and apparent features of a particular city or town before implementing the same. Sustainable urban planning ought to optimize the use of relevant urban planning techniques to improve the lives of the citizens while adhering to economic obligations. As such, changes introduced in Sharjah are unlikely to suit the needs of a modern day metropolitan center likely as New York. The division of the city's land to meet commercial, religious, and other social needs implies that sustainable urban planning methods must optimize the rendering of the same objectives with minimal levels of waste. The most important of the features identified being commercial activities since the topography and climate of the region is not particularly appealing for activities such as farming. Furthermore, sustainable urban planning could also account for the construction of infrastructure to supplant the current body of connections in place (Geertman, Toppen & Stillwell 2013). Finally, the ideal SUP planning must accommodate the optimization of the exploration of oil reserves.

## **2.10 Prevailing Economic Conditions**

The prevailing economic conditions of a particular region and the country play a central role in the price of land at present and the future. One such aspect of the economy that affects the costs of land as alluded to herein is the employment opportunities within that region. The availability of employment opportunities dictates that ability of an area

to attract potential residents and settlers in any particular region. Current developments in the society exalted the value of employment availability in prescribing the course of any specific individual. The availability of employment opportunities directly influences the size and demography of any given population in the modern-day context (Bonoli 2010). The author argues that employment directly dictates the amount of income available for the population, which in turn affects their valuation of the land they intend to settle in as they fulfill their employment responsibilities. Furthermore, employment opportunities imbue the residents with sufficient purchasing power which could increase demand for land as more people become capable of making land purchases (Bonoli 2010). In hindsight, employment opportunities amount to a significant catalyst for the growth trajectory for land prices, particularly in Sharjah.

The economy of the UAE has registered significant growth in recent years particularly after the discovery of the oil deposits in different states. While the initial growth phase centered exclusively on the oil industry the trend dissipated eventually. The current trends indicate a more diverse prospect for the nation where other facets of the economy are thriving on the foundation of the highly profitable oil industry. The introduction of sustainable urban planning in managing the location and exploitation of oil reserves in Sharjah could help the state in its next phase of growth and development. The implementation of SUP will target the haphazard consumption of natural resources, thereby ensuring that optimal use of such resources limits wastage while accounting for the needs of future generations. Urban planning will likely create ideal scenarios for the present and the immediate future, but its impact will not sustain Sharjah's obligation to the UAE economy in the long-term. The possibility of the collapse of the third largest

city with the third largest population could have devastating repercussion for the UAE in its quest to rival other developed nations in the globe.

### **2.11 Appeal to Business and Commercial Entities**

Another unique factor of the economy that could impact land prices is the commercial appeal of the region to business and potential financial investors. Sharjah is particularly appealing given its commercial value to entrepreneurs of all kind looking to benefit from the population distribution, availability of resources and sound government policies. The commercial appeal refers to the ability of the region to draw in businesses looking to meet demands from their respective market demands. Often, decisions regarding new markets involve careful consideration of the profitability of the venture and the sustainability of the same (McNichols & Stubben 2008). The commercial appeal of a region also dictates the number of business entities that are willing to set up and conduct business in that region. Business is particularly crucial given that it provides the much-needed injection for the economy through utilization of resources, providing job opportunities and influencing the demography of the population. Any of those acts alongside several others discussed by McNichols and Stubben (2008) could influence the value of land by directly pandering to the needs of business and commerce. Ultimately, Sharjah must appeal to commercial entities looking to settle in the region leading to increased land prices. SUP provides a viable platform to improve the appeal of Sharjah to potential commercial investors in the long-term by stabilizing certain factors in the present times.

## **2.12 Knowledge Gap Identified**

The information gleaned from various sources explored in the entirety of chapter two indicates that sustainable urban planning could have enormous repercussions particularly if the implementation is ideal. The literary sources used in the preceding chapter document possible implications for all humans as the introduction of sustainable urban planning affects the price of land and related property. The information discussed indicates that despite the extensive body of knowledge about SUP there is a significant knowledge gap in existence regarding its implication for regions in the Middle East. As such, there is a need for conducting a research study to investigate SUSP where Sharjah serves as the scope of the process. The information gathered through the action research process will provide more contextual information necessary to understand the implications of implementing SUP in Sharjah and the adjacent regions in the UAE.

## **2.13 Case Study**

The challenges that arise with increased urban population and urbanization trends provide the logical grounds for the introduction of sustainable urban planning methods. The implementation of SUP methods could be the difference between long-term sustainability and catastrophic outcomes. As such, a seamless and timely introduction of SUP plans, as is the case with the Netherlands, is the ideal approach that serves the interest of all involved stakeholders. The Netherlands is mostly below the sea level and one of the most densely populated countries across the globe (Van Oort 2017). However, the country has forged a strong position on the global platform courtesy of the spirit of collaboration and innovation to sustain its population. The government, the business community, and scholarly institutions form the core of the foundation by intervening in

scenarios that are extremely challenging. Some of the myriad of challenges they face include water, pressure on the infrastructure, climatic conditions, and its circular economy. The core of the planning approach used by the Netherlands consists of the re-use policy, cycling, flexible road use, sustainable construction, and flood safety measures (Van Oort 2017). Each of the said measures in place in the Netherlands positions it as the ideal example for implementation of the sustainable urban planning case study.

The Netherlands' road system exhibits sustainability where traffic flow is dependent on the information panels over the road. The panels provide vital information such as traffic volume and the weather conditions of the immediate surroundings. Furthermore, the Netherlands is synonymous with the high number of bicycles as a safe and green alternative means of transport (Van Oort 2017). The urban planning involves the inclusion of cycle paths into the road structures to ease traffic congestion while minimizing the pollution levels. The integration of this practice into the urban fabric is an indication of a broader effort that also includes sustainable construction plans to utilize the limited physical space available. The country has extensive patches of energy-neutral housing properties that meet the needs of the dense population without overexploiting the environment. The Netherlands reclaimed part of its territory from the sea, which implies that it is inherently at the risk of flooding should the sea level, or tides rise (Van Oort 2017). The country has an extensive system of dikes and flood defense mechanisms in place to counter the threat of floods and ensure flood safety for its citizens. Ultimately, the Netherlands provides an ideal example of a region using innovation and collaboration to achieve SUP goals.

## **2.14 Conclusive Remarks**

Sharjah is among one of the region with abundance in natural resource deposits in the form of oil deposits that support the economy while encouraging entrepreneurship undertaking. The region is also experiencing unprecedented levels of peace and stability brought on by increased government involvement through legislation and other forms of exercising its authority. The government is continuously engaging in activities that ensure the security of the region while regulating other aspects of society and the economy in general. Such efforts have led to the increasing frequency of construction of social amenities and infrastructure that catalyzes urbanization. Such changes have increased physical access and appeal of the region to residents, potential settlers, and business entrepreneur. Currently, the introduction of sustainable urban planning in the region encourages the process of constructing efficient and viable structures which improves its appeal. Ultimately, each of those factors contributes to the value of land by directly influencing its appeal to potential buyers among other stakeholders.

# **Chapter 3**

## **Research Methodology**

### **3.1 Methodology**

Research methods consist of a systematic and scientific process of collecting, compiling, analyzing, interpreting data for predetermined purposes or objectives. The emotive nature of land further imbues its importance to the present and the future of humanity given that it holds the key to sustainability for the long-term future. The changes initiated by sustainable urban planning are likely to cut across political, economic, social facets of the modern-day society in Sharjah and the adjacent area. The ideal means of quantifying such changes would entail the use of both qualitative and quantitative measures that will guarantee an acceptable degree of outcome representation. The literature review section revealed the tremendous potential impact of SUP on Sharjah and the adjacent regions in the UAE. Several research methods would ideally suit the needs of this research study, which necessitates a careful review of all the possible methods. The best research approach would entail one that meets all the requirements of the research without necessarily creating functional or operational challenges for the research team.

The available research method falls into two general categories, namely qualitative and quantitative research methods. Qualitative research methods rely on words, emotions, sound, and feelings to record non-numerical observations and intangible elements during the research process. Typically the information gathered through this method is impossible to process and contextualize through mathematical techniques (Neuman 2013). On the other hand, quantitative research methods entail descriptions, inferences and problem resolution that utilizes numbers to document the observations in an experiment; such information could be translated using mathematic formulae. Further

classification of the research methodology hinges on the nature of the study, the purpose of the study, and the research design. Each of the three features spawns several other possible means of research that provides actionable outcomes through a logical process of study. The results of the research process will fall into either of the general groups mentioned herein, namely quantitative and qualitative (Neuman 2013).

### **3.1.1 Nature of the study**

According to this categorization, the research process takes place in a manner that subdivides the group into two categories namely the analytical and descriptive research methods. As suggested by its name, descriptive research takes place where surveys or study experiments that seek to establish the facts in any particular subject or area of study. As such, the entirety of the descriptive research process deals with a candid and succinct description of affairs as at present with no control over various variables relevant to the study (Neuman 2013). The alternative means of research under the nature of the study is the analytical research which involves the researcher using facts or readily available information to form the foundation for critical evaluations. Either approach is suitable or researching with particular characteristics.

### **3.1.2 Research Design**

Under the research design categorization, any research approach subdivides into two distinct groups, namely the exploratory and conclusive research approaches. The conclusive research methods focus on providing authoritative and conclusive remarks on the study subject as dictated by the predetermined research question. By sharp contrasts, the exploratory studies, undertake extensive efforts to explore the research area to gather core information regarding the subject matter with little attention to the outcome

(Neuman 2013). The difference between either method is captured in the table below based on several core parameters that include structure, methodology, the findings, and the hypothesis.

### **3.1.3 Purpose of the Study**

According to this classification, research methods fall into two distinct categories namely action research (fundamental) and basic or pure (applied) research. Applied research consists of several characteristics listed below:

- Attempts to eliminate subject theory by adding essentials to a discipline.
- Prefers the use of generalizations
- Assumes that other variables are fixed
- Relies on forecasting as a technique

On the other hand, the fundamental research approach includes:

- Involves the collaboration of several disciplines in solving the problems at hand
- Lacks the need for generalization instead focuses on an individual discipline
- Aims to record and exhibit the notable changes
- It acknowledges that the variables might change during the study (Neuman 2013).

Conducting a large-scale research experiment seeking to gauge the impact of implementing sustainable urban planning on a modern city such as Sharjah must account for all the social, political, and economic changes witnessed. The literature review section of this report affirmed that Sharjah is a dynamic modern city with numerous intermittent factors affecting its current progress. As such, the ideal research method adopted for studying Sharjah should incorporate fundamental research attributes where it involves collaboration with other disciplines while aiming to record and exhibit any notable

changes to the city. Johnson and Onwuegbuzie (2004) note that the fundamental research approach will provide the perfect platform to study individual changes to Sharjah over the years as the implementation of SUP takes its course. Lang et al. (2012) suggest that that type of research will account for recent changes noted in Sharjah in the period post the implementation of the SUP. It could also distinguish between inherent change process and proactively catalyzed changes to the city's environmental dynamics over a chosen period.

One of the most popular research approaches for situations similar to the implementation of SUP in Sharjah is the reliance on exploratory research as outlined in Table 3.1 above. As explored by Fidel (2008) in the report, this type of research is not limited to a predetermined research hypothesis about Sharjah but instead focuses on establishing a foundation for future research. Finally, the study on Sharjah could benefit from the use of either descriptive or analytical approaches to study due to their characteristics described earlier in this report. Researching the impact of sustainable urban planning on a particular region requires both a descriptive and analytic approach that not only incorporates notation of the current facts and using those facts to establish a foundation for critical evaluation. The information presented in this section provides the background for the choice of research method to be adopted for use as described in the following section of this report.

### **3.2 Initial Ideal Research Method Based on Section 3.1**

Fully quantifying the effects of SUP in the region might not be possible through the single use of either qualitative or quantitative methods. As such, the ideal approach would entail mixed method research, as defined by Creswell and Clark (2017), who

champion both qualitative and quantitative approaches to meet the said objectives. The collection of both approaches will ensure that the research study captures both styles, thereby causing an overlap that will cover the weaknesses of each approach. The parameters for information collection will include the impact of the introduction of sustainable urban planning, the prevailing circumstances and the potential repercussions of such an undertaking on Sharjah and the UAE. Due to the nature of the research project, the best approach would entail capturing both qualitative and quantitative data in response to the predetermined objectives. The book by Neuman (2013) advocates for the use of quantitative measurements to record the changes witnessed in tangible aspects of the research where numerical values are applicable. Additionally, the qualitative aspect of the research process will capture the descriptive values that are not quantifiable by conventional quantitative research. A combination of both approaches will allow research of Sharjah to comprehensively cover all aspects of research that are relevant to the predetermined objectives.

### **3.3 Research Methodology Review**

The emotive nature of land further imbues its importance to the present and the future of humanity given that it holds the key to sustainability for the long-term future. The changes initiated by sustainable urban planning are likely to cut across political, economic, social facets of the modern-day society in Sharjah and the adjacent area. The literature review section revealed the tremendous potential impact of SUP on Sharjah and the adjacent regions in the UAE. Several research methods would ideally suit the needs of this research study, which necessitates a careful review of all the possible methods. The best research approach would entail one that meets all the requirements of the

research without necessarily creating functional or operational challenges for the research team. The literature review section revealed the tremendous potential impact of SUP on Sharjah and the adjacent regions in the UAE. Several research methods would ideally suit the needs of this research study, which necessitates a careful review of all the possible methods. The best research approach would entail one that meets all the requirements of the research without necessarily creating functional or operational challenges for the research team.

### **3.4 Research Methodologies and Paper Reviews**

#### **3.4.1 Qualitative Research Methods**

**Paper #1: I hate having nobody here. I'd like to know where they all are': can qualitative research detect differences in quality of life among nursing home residents with different levels of cognitive impairment?**

Authors: Suzanne Cahill and Ana M. Diaz-Ponce

In this paper, the authors sought to fulfill the objective of ascertaining if any similarities or differences exist in the opinions of nursing home residents who exhibit different levels of cognitive impairment concerning the quality of life (QoL). The researchers adopted a face-to-face interview method that consisted of 15-item semi-structured schedule for the interview process. The interview had a sample population of 61 older people with cognitive impairment where 28 had severe levels, 13 mild levels, and 20 moderate levels. All the participants were living in three Dublin area based in NHs. The research identified four key themes of the quality of life as well as several subsequent sub-themes. The themes included social contact, pleasure activities, attachment, and affect thereby

justifying the noted absence of social contact and a lack of awareness. The bulk of the respondents indicated that they were lonely, isolated and in search of a home.

**Paper #2: Human-environment interactions in urban green spaces—a systematic review of contemporary issues and prospects for future research**

Authors: Nadja Kabisch, Salman Qureshi, and Dagmar Haase

This article addresses the absence of definitive information about the general understanding of contemporary human-environment interaction, particularly in urban green space. The information is incapable of underlining the importance of landscape planning, particularly for urban planners and to the benefit of city residents. The review conducts qualitative research that draws from 219 publications covering the topic to fulfill two primary objectives. The first objective is to provide the readers with a pertinent and current overview of the state of research on the existing relationship between society and urban green spaces. The report also seeks to categorize several research approaches used by pertinent research endeavors that identify the primary areas of research that include research areas, target groups, methods used and ultimately defining prospects in urban green space research.

**3.4.2 Quantitative Research Methods**

**Paper #3: The study of urban metabolism and its applications to urban planning and design**

Authors: Christopher Kennedy, Stephanie Pincetl, and Paul Bunje

This article explores the increasingly popular topic of urban metabolism based on the findings of research efforts from two decades worth of research that cover urban metabolism. The article identifies urban metabolism as an essential part of the overall

effort to regulate population in line with the ideals of sustainable urban planning. The development of urban metabolism as a concept is the direct result of compiling information from different sources as mentioned earlier and reining the available knowledge on the same. The article explores the application of urban metabolism to improve sustainable urban planning by deriving sustainability indicators from it, Studying inputs to urban greenhouse gas accounting, using dynamic mathematical models for policy analysis, and finally utilizing the design tools. The research paper also indicates a growing reliance on urban metabolism evidenced by the sizeable number of papers its references.

**Paper #4: A systematic quantitative review of urban tree benefits, costs, and assessment methods across cities in different climatic zones.**

Authors: Roy Sudipto, Jason Byrne, and Catherine Pickering

This article takes up the quantitative review approach to investigate the advantages of tree benefits, costs, and assessment methods across several cities in different climatic zones. The theme addressed in the research paper entails the use of trees in urban centers in mitigating environmental degradation in the face of rapid urban migration. The paper addresses the uncertainty of the tree benefits and the cost of those trees on the local authority and the residents, yet few research efforts address variation between the two factors. The research paper reviews 115 original urban tree studies and covers the research locations, the methods in use, the assessment techniques, and the variation between costs and benefits. The research papers used in this report utilize knowledge published in thirty-three different journals from several disciplines to bring a wholesome coverage of the outcomes. The identified tree benefits included economic, social, visual, health and

aesthetic benefits while the disservices include light attenuation, infrastructure damage, maintenance costs, and other health problems.

### **3.4.3 Mixed Method Research**

#### **Paper #5: Analyzing qualitative and quantitative changes in coastal wetland associated with the impact of natural and anthropogenic factors in a section of Tianjin, China**

Authors: Zhenglei Xie, Xuegong Xu, and Lei Yan

The above paper utilizes both qualitative and quantitative research methods to explore the changes experienced in the coastal wetland associated directly with the impact of anthropogenic and natural factors. The study specifically focuses on a specific part of China named Tianjin. The nature of the study in Tianjin necessitated the use of a revolutionary approach that covers both tangible and intangible changes, thereby justifying the use of both qualitative and quantitative methods. It employs the use of a questionnaire survey and remote sensing data collection to meet the objectives of the study. Contextualizing the changes to the environment, particularly with the aim to introduce sustainable urban planning, requires such an approach.

#### **Paper #6: Public-health impact of outdoor and traffic-related air pollution: a European assessment**

Künzli, N., Kaiser, R., Medina, S., Studnicka, M., Chanel, O., Filliger, P., Herry, M., Horak Jr, F., Puybonnieux-Textier, V., Quénel, P. and Schneider, J.,

This paper adopts both qualitative and quantitative approaches to studying the impact of outdoor and traffic-related air pollution on public health. The methodology uses an experimental approach to quantify the impact of air pollution from traffic and the

outdoors for the public. The research findings indicated that air pollution was responsible for 6% of the total morbidity rate with half resulting from motorized air pollution. The research then makes assumptions based on the result to provide qualitative or deductive reasoning for the paper and analyzing the environmental health policies.

#### **3.4.4 Comparison of Methodologies**

The qualitative research approach intrinsically captures the less quantifiable aspects of the research process such as changes to the climate, the quality of life, and experience of using social amenities. On the other hand, the quantitative approach will cover the statistical or tangible changes to the urban center such as the economic impact of SUP, the rate of growth and development among another factor. The two approaches are intrinsically very different, but a combination of both method guarantees increased effectiveness in the research process. Fully quantifying the effects of SUP in the region might not be possible through the single use of either qualitative or quantitative methods. The collection of both approaches will ensure that the research study captures both styles, thereby causing an overlap that will cover the weaknesses of each approach. A mixed method approach will satisfy different thresholds of the research for Sharjah, while providing sufficient grounds for drawing assumptions regarding other regions in the UAE on the next page table (3.4.4.1), a detailed comparison between different approaches..

| <b>Methodology</b>           | <b>Advantages</b>  | <b>Disadvantages</b>   |
|------------------------------|--|--|
| <b>Qualitative Research</b>  | The use of the qualitative method in paper #1 and paper #2 exposed the research to aspects of the research that were not quantifiable such as loneliness, isolation, and benefits to the quality of life. Such information could be useful in properly contextualizing the results of the overall research.  | The research fails to provide quantities that could help compare the findings to other known metrics in the research process for both paper #1 and paper #2.   |
| <b>Quantitative Research</b> | Paper #3 describes urban metabolism using indicators that are quantitative. Such an approach allows the use of mathematical models and policy analysis to quantify current changes and the desired outcomes through statistics. Paper #4 further provides a cost-benefit analysis using statistical data to map out the cost and the benefits for the purpose of planning and implementation | Both Paper #3 and Paper #4 fail to provide sufficient room for the inclusion of quantitative factors that are obviously part of the research process. Both papers also reveal the possibility of wrongful conclusions drawn from faulty mathematical manipulation of the data collected. |
| <b>Mixed method Research</b> | Research paper #5 uses both qualitative and quantitative research approaches to cover tangible and intangible outcomes of the research process. Both paper #5 and paper #6 possess useful information that could meet the comprehensive needs of the research.   | Paper #6 helps to identify the challenges that could arise from the use of the mixed method research approach particularly in measuring aspects of urban centers such as air pollution. The challenges include the possibility of personal bias and handling different types of answers. |

Table ( 3.4.4.1 ) : A Comparison of three types of methodologies in term of the advantages and disadvantages for each .

### **3.4.5 Determination of the Best Methodology**

The use of qualitative and quantitative methods provides the researcher with an advantageous approach to research whereby the researcher could use either approach to gather pertinent information. The mixed method research approach entails balancing between qualitative and quantitative research methods to achieve the universally desired outcome. The qualitative research method would ideally involve gathering non-quantifiable data about SUP in Sharjah with the aim of using that information in future instances of research and decision-making. Additionally, the qualitative aspect of the research process will capture the descriptive values that are not quantifiable by conventional quantitative research. A combination of both approaches will allow research of Sharjah to cover all aspects of research that are relevant to the predetermined objectives comprehensively. The nature of this research quest is not a scientific one, but rather one that covers the social, economic, and political aspects of Sharjah. As such, the use of experimental research in this particular instance is not only impractical, but also illogical given the nature of the anticipated outcome.

### **3.5 The Justification for the Use of the Mixed Method Research Approach**

The use of qualitative and quantitative methods provides the researcher with an advantageous approach to research whereby the researcher could use either approach to gather pertinent information. One of the notable qualitative research methods available for use is the process of document analysis as a plausible means of collecting information. The article by Bowen (2009) addresses the value of document analysis as one of the available mechanism of research that applies to research in Sharjah. The mixed method approach recognizes the value of secondary information to the overall accuracy and

authority of research on any particular subject. The implementation of sustainable urban planning in various regions across the world involves thorough documentation of the findings in the report or for future references. The information recorded in various research reports that do not document actual research efforts amounts to secondary data. Such information could serve different purposes during another report or research endeavor that implies that such information could be vital to the researcher. Document analysis allows the researcher to adopt the secondary sources as a reliable resource during the research course.

The implementation of the sustainable urban planning in Sharjah, UAE is likely to encounter similar challenges and advantages to those experienced in different parts of the world. Conducting document analysis for qualitative information could help contextualize the similarities and differences noted in Sharjah and the rest of the world. Document analysis provides the researcher with access to information about SUP thereby cutting down the need for conducting extensive research in other regions for comparison purposes. Naturally, there are other instances of research conducted by different researchers for particular research purposes. Information from such study procedures could be adapted to suit the needs of this research endeavor in Sharjah without incurring additional costs of research.

The mixed method research approach entails balancing between qualitative and quantitative research methods to achieve the universally desired outcome. The qualitative research method would ideally involve gathering non-quantifiable data about SUP in Sharjah with the aim of using that information in future instances of research and decision-making. The nature of this research quest is not a scientific one, but rather one

that covers the social, economic, and political aspects of Sharjah. As such, the use of experimental research in this particular instance is not only impractical, but also illogical given the nature of the anticipated outcome. Ultimately, the use of the qualitative and quantitative methods accounts for all the divergent and convergent information gathered during the study process.

The chosen article identifies the seven benefits as follows

- It identified several questions for future considerations.
- It explored the variations in how both methods respond to the research questions.
- Provided revelation as to the optimal conditions as per the respondent's views.
- It led to the realization of other data sources.
- It allowed for the operationalization of the two factors in mixed method research.
- Revealed different definitions of the subject matter as understood by the respondents and finally.
- Provides insight into the minds of the respondents (Dunning, Williams, Abonyi and Crooks 2008).

The research process and results of the chosen study is particularly consistent with the intended research in Sharjah in the sense that the subject is likely to provide a diverse body of knowledge. Both qualitative and quantitative knowledge will help contextualize the application of sustainable urban planning methods in the Sharjah region. The quality of life and the impact of SUP exhibit similar tangible and non-tangible characteristics. It is logical that the information collected must capture both qualitative and quantitative qualities since such information could serve the needs of future research projects.

The nature of the information obtained from conducting this research endeavor is likely to provide results in a similar format to the research findings by Dunning, et al. (2008). As such, the use of the mixed method research will help to contextualize and supplant the information collected from secondary data sources and the primary research efforts of this project. The mixed method approach guarantees that the results generated from the interviews and the questionnaires will cover every possible source of information from the target respondents thereby giving a wholesome appeal for the findings. The comprehensive nature of the findings could serve the needs of future research endeavors that seek to establish the impact of sustainable impact on land among other factors. The adopted case study indicated that a mixed method research approach is likely to capture information that both qualitative and quantitative approaches might omit when used as separate research methods for this particular study of Sharjah. Consequently, the use of mixed method research is the ideal method that could capture all the needs or demands of the research process especially when covering an expansive topic such as sustainable urban planning.

### **3.6 The Use of Interviews and Survey Procedures**

The information in the preceding sections about the nature of the study and the purpose of the study indicate dictated the final decision on the methodology adopted. The process explored above culminated in the choice of using survey and interviews as the primary data collection methods for the purpose of the research thesis fulfillment. The application of the primary data collection process will target three main groups of individuals that include common people, relevant government officials, real estate experts, as well as stakeholder companies. The groups of individuals listed above will

provide important information regarding the economy and land market in general. The survey process will target the general population for information on market trends and changes while the interview will focus on extracting from experts and government entities with specialized information on SUP. The public is likely to offer insightful information regarding the challenges affecting the general public in Sharjah thereby appraising the current mechanism of SUP in place and identifying areas in need of improvements. Thus they constitute an important source of information required to fulfill the research objectives identified before initiating the study.

The real estate offices and stakeholder companies will also offer insightful information regarding the performance of the real estate industry and related sectors. The companies and the real estate offices have a direct connection to the changes in the industry that reflect notable increases in land value and market price trends. The information from such sources could contextualize the feedback offered by common people on the performance of the real estate market and the changing land prices. The real estate offices have a direct influence on the prices allocated for land prices in urban centers and rural areas in Sharjah which underlines their value to this research. The stakeholder companies are responsible for critical decision-making that catalyze the increasing spread of urbanization and the subsequent rise in land prices. Such companies make their decisions based on predictions or extrapolation of prevailing market conditions. In the end, information from such companies would help to determine the appropriate SUP intervention mechanism for the coming period. The common people, the real estate offices and the stakeholder companies form only part of the larger body where the remaining portion comprises of the government entities and officials.

The government officials and government entities serve as the authority figures that directly impact the success of the implementation of SUP in Sharjah. The government officials and entities often serve as regulatory agents that oversee the industry and protect the interest off the public from exploitation by profit oriented organizations. At the same time, the government helps to create a sustainable environment that ensures that all stakeholders adhere to a common set of rules or regulations that are in line with the ethical principles of the people of Sharjah and the economic goals of the region. Essentially, the government makes up the public sector while the real estate agencies and stakeholder companies make up the private sector. The participants in this part of the thesis will answer a different set of questions available at the end of this research report. The research process will target several in decision-making positions where such individuals include:

- i. Sharjah Commerce and Tourism Development
- ii. Real State Registration directorate in Sharjah
- iii. Directorate of town planning and Survey in Sharjah
- iv. Economic Development Department in Sharjah
- v. Sharjah Urban Planning Council

The individuals listed above hold important positions in the government that directly formulates and implements policies that directly influence Sharjah's effort to implement SUP. The survey research will involve a series of interviews with notable individuals who have expertise or knowledge regarding sustainable urban planning implementation. Creswell and Clark, (2017) provide a succinct platform for successfully conducting a proper research interview process that provides credible results for use later on. The interview process will entail a scheduled 15-20-minute question and answer session between the interviewee and the researcher and also based on the interviewee

state if he became interested on the subject and decided to share more related information. The interview process will seek to ascertain the views of the participants that include local authority personnel and economic development authority in Sharjah on the prevailing land use trends in Sharjah and their expert prediction for the foreseeable future. The government officials identified above have direct access to information about government plans and government involvement in the implementation of SUP in Sharjah. Their take on matters could provide indicators or future plans by the government by contextualizing current performances. Furthermore, it will provide a more authoritative result for use in the analysis and conclusion of the findings of this research process in Sharjah during the ensuing Chapter Four and Five.

The alternative option is the use of surveys that entail the use of a semi-anonymous questionnaire used to gather information from willing respondents. The questionnaire will consist of two distinct sections that gather approved biographical data about the respondents and a set of close-ended multi-choices. The survey will include a three main parties, government entities in Sharjah , offices and real estate companies and random sample selection from different parts of Sharjah regardless of their social, political, and economic standing in society. The randomization choice for the survey research process acts as a double blinding technique to limit any bias from the researcher and the participants of the process. Furthermore, it enhances the chances of adequately representing the distribution of opinions of the population, mainly when making general assumptions. The survey process must adhere to a preset list of survey ethics set by the relevant governing authority as a prerequisite to maintaining the credibility of the findings. The data collected from the process will undergo computerization to reveal any

particular trends or pattern from the respondents. It is essential to ascertain the patterns or trends noted by such a method as a means to comprehend some of the assertions made by different authors and experts as documented in the literature review section.

### **3.6.1 Population Sample for the Survey and Interview Question**

The research phase dedicated or data collection will take place in two different phases where phase one utilizes the relevant tools to collect information from the public through the questionnaires. This phase of the research will draw responses from willing and eligible participants on various question listed in the questionnaires submitted as part of this report. The respondents will provide responses to several closed ended questions that tackle various issues and topics on the land prices and market trends. The sample will target approximately a hundred and twenty individuals from within the Sharjah region. The chosen population sample is easy to manage in the context of this research because they will only be taking part in the survey process where closed ended questions will be central thereby minimizing chances of additional costs. The inclusion criteria include individuals who have provided express permission or consent to partake in the study after accessing the terms of the research study (Fidel 2008). This phase will also include individuals of legal age between 18 years old up to 70 years old, and individuals of male and female, without discrimination to increase the chances of a better representation of a random public sample.

The large sample size attempts to replicate the representation in the public such that the extrapolation of the results will provide better representation of the facts on the ground (Johnson, and Onwuegbuzie 2004). The exclusion criteria will include individuals of legal underage, individuals who expressly refuse to partake in the study, as well as

information from individuals who have not been residents of Sharjah for the last six months of the year. The second phase of the study will involve the execution semi-structured interview process to help capture all the relevant information. The interview process will target approximately seven to ten individuals from the private sector and the government entities. The in-depth nature of the interviews necessitated a smaller population sample because a larger sample size might exceed the budgetary allocations for the study. Additionally, collection and analysis of information from a significantly larger sample size might present logistical complications that could taint the results of this research process (Neuman 2013). As such, it is only logical to use a small yet manageable sample size with a better accuracy in representing the views of the government entities, the real estate agencies and stakeholder companies.

Furthermore, the interview process will utilize an open-ended question format consisting of up to five questions covering various facets of sustainable urban development, economic and real estate market changes and policies and regulations in the region. Furthermore, it will also include the survey results and analysis accompanied by the preliminary suggested policies comparison whatever available relevant to the study objectives. The interview process is crucial in explaining the emerging trends and future outcomes noted or predicted by the extensive literature review section of this assignment. The process is essential to testing out hypothesis statements regarding the impact of sustainable urban planning on economy and real estate market and the role of policies and regulation in Sharjah. The outcomes from the interview will provide the information necessary to comprehend the land price trends witnessed in the region as well as making predictions for future trends. The interview process will expectedly compliment the

efforts made through the use of the questionnaire that contains several predetermined questions as documented below in this report.

In light of the findings of the research process, the relevant stakeholders should be capable of formulating and implementing policies that promote the fulfillment of particular objectives. The changes experienced in Sharjah will likely have significant implications for the remaining part of the year and the most suitable entities that could collect the information are the public officials and the private sector as explored herein. The public will also provide a stable evaluation of the entire process which is important in establishing other intervention methods necessary. Additionally, the introduction of economic intervention mechanism will help protect the economy from drastic changes in land prices that could cripple the economy. Finally, the information will be subject to analysis during chapter four with future ramifications for Sharjah and the implementation of Sustainable urban planning .

### **3.7 The Collection of Secondary Data**

The collection of secondary data involves scrounging the library and various databases for information collected by previous studies and research experiments covering urban planning and SUP. The collection of secondary data is essential in consolidating information about the sustainable urban planning process and the likely overall impact it could have on the population. Secondary data could cover previous government intervention methods and the impact of Sharjah and its environs. The collection of information from databases will depend on the period limit imposed on it which covers information within the last fifty years since 2018 backwards. The half a

century period is essential in covering any gradual changes to the region within a ten-year period which offers sufficient grounds for comparison. Naturally, adopting information from formal setups such as libraries and professional databases ensures that the final output generated is reputable and applicable in different scenarios. The secondary data might also emanate from reputable sources such as government websites and news sources that capture gradual changes in the target region of Sharjah. The data collected might help to identify the knowledge gap that requires filling through the active research process detailed in this essay.

The collection of secondary data will involve two distinct phases where the first phase entails identifying all possible sources and verifying the relevance of the information. The first phase is crucial in ensuring that the data selected for use in this research is relevant and contributes to the overall objective. The first phase will identify information that does not meet the fifty-year inclusion threshold as well as any redundant information. The second phase involves the documentation of the secondary data in a manner that suits the needs of the research process. Naturally, much of the data from those sources suited different research or informational purposes that might not necessarily mirror those of this research study. The ideal approach would entail an active intervention measure to limit the information towards the research parameters to ensure that the outcomes dispel or disapprove the research hypothesis. As such, the second phase is essential in realigning that information to meet the needs of this research process with a view for future implications. Collectively, the collection of secondary data is a critical phase in ascertaining the authoritative nature of the outcomes of this research process.

### **3.8 Participant Observation**

The final part of the methodology section is the participant observation where the researchers engage in an active process to collect information about the target population. The researchers will participate in a unique exercise where they take time within Sharjah to study the trends and practices. The researcher will note significant changes to Sharjah in the face of substantial changes brought about by different SUP intervention mechanism put in place in pursuit of sustainability. The self-driven effort will ensure that the researchers also play a part in the collection of information regarding the impact of sustainable urban planning on the region. The structure of the research process purposefully excluded the input of the researchers by relying on data from the survey process and the secondary data. Both sets of information emanating from secondary sources as the researchers do not influence the proceedings through personal bias. The final phase allows the researchers to utilize their observation skills to deduce the changes noted in Sharjah through personal experience within the target location. In the end, the research process would have accumulated information from reputable sources as well as own observations leading to a comprehensive depiction of the prevailing conditions.

# **Chapter 4**

## **Survey Results & Discussion**

## **4.1 Introduction**

The research study conducted and documented in this chapter is in response to the established body of knowledge covered in the literature review section. The information contained in that section reiterates the reality that the UAE has limited resources and thereby justifying the urgent need to introduce better SUP measures guided by the expertise views and the needs of the people. The extent of that reality is evidenced by the growing number of inhabitants of the region that strains the limited natural resources such as land. The UAE has experienced a steady and a notable growth rate within the indicated period fueled by the vast oil deposits within its boundaries that sustain the economy. The research study sought to provide further context into the claims documented by various literary resources used in the literature review section. The region's increasing commercial and social appeal has resulted in increased population numbers in areas such as Sharjah, which necessitated the implementation of sustainable urban planning mechanisms. The process of implementing SUP in Sharjah must incorporate the view of the public and the individuals in positions of authority who took part in the survey process. Thus, the information explored and illustrated in this chapter focuses on the results of the findings as directed in Chapter 3's methodology. This section will explore the impact of the intervention measures currently in the region and the extent of influence it could have on the future of Sharjah based on the responses collected from the survey process.

### **4.1.2 Research Ethics**

Since the research conducted here in utilizes human subjects to generate data and answer the research questions, it is logical that the research was submitted to the

Institutional Review Board (IRB) for review and approval of the process. Additionally, the research offered the respondents a measure of privacy by agreeing that the primary data will only be accessible to the researchers and approved personnel and the results were for the purposes of the study as stated and not in any other capacity. Additionally, the participants were informed of their freedom to refuse to partake in the project at any given time during the entire process.

## **4.2 Results from the Survey**

The results of the survey process provided a clear indication of the situation facing Sharjah and the possibility of improving those conditions. The survey, conducted incorporated answers from different individuals in the target region who provide an insight into the intricacies of the region. The responses from the survey indicated that despite the limitation of the natural resources Sharjah has continued to develop at a steady pace spurred on by economic factors such as oil and gas exploration. The responses whom include: Different government entities , real state companies and common people indicates that the respondents of the survey were of the following opinions:

- 1- Land is the most valuable resource for Sharjah and UAE as a whole
- 2- The land market in Sharjah is in dire need of intervention in different sector
- 3- Attract growth by developing infrastructure, social amenities, economic growth incentives, and healthcare improvement.
- 4- Sharjah still require extensive intervention by the local authority and collaboration with relevant stakeholders to improve its standing
- 5- Even development of rural and urban areas
- 6- Targeting the introduction of economic development-oriented activities

7- Politics is essential to the state of SUP in Sharjah

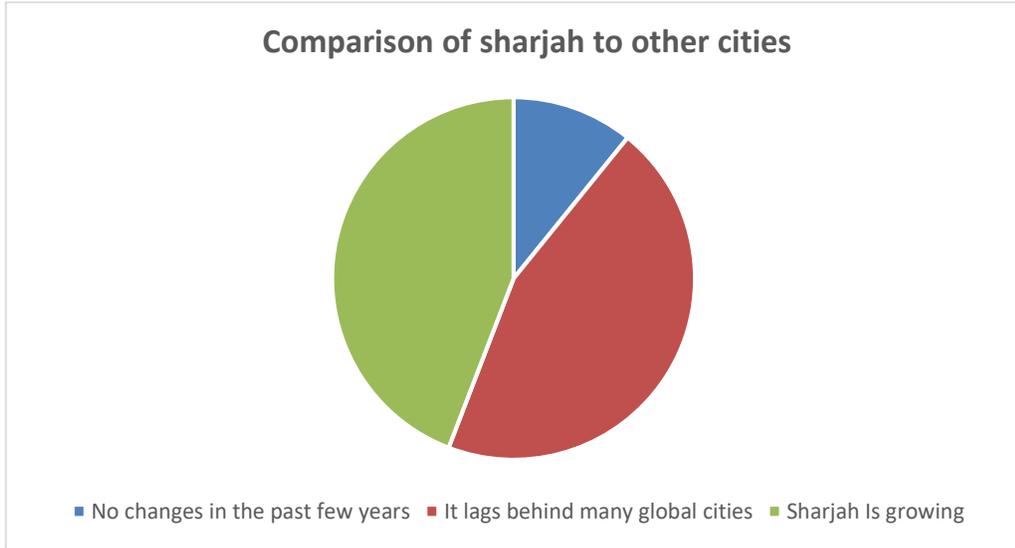


Figure (4.2.1): showing responses from question 8, about Sharjah's position in terms of its economy and its land market compared to other cities ( Author ) .

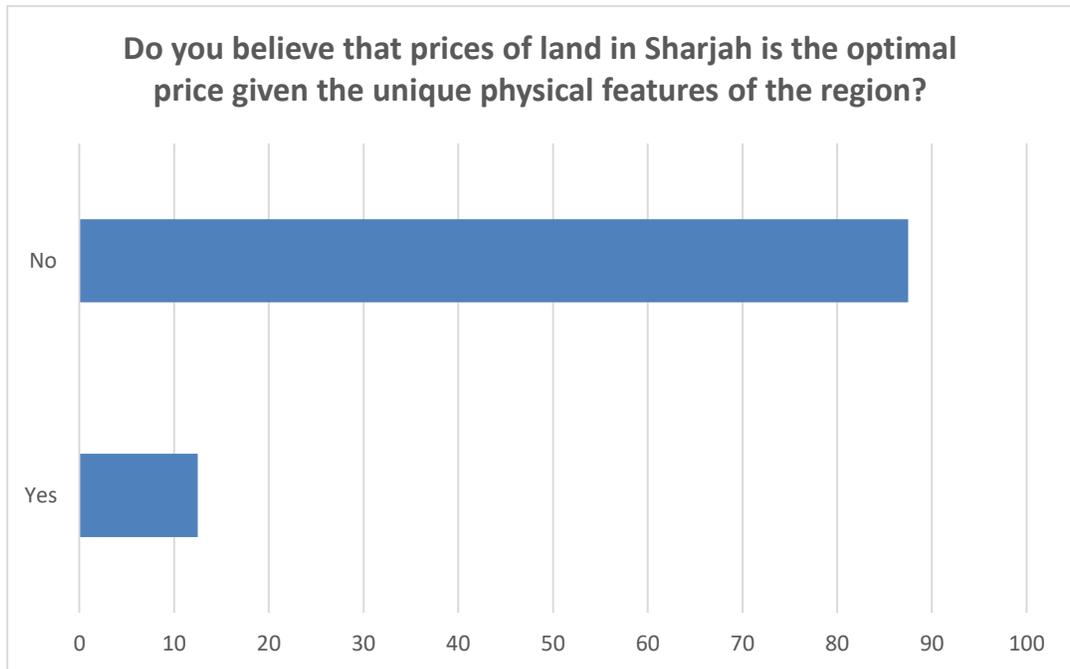


Figure (4.2.2) : showing the respondent's views on question 4 about the prices in Sharjah's land ( Author ) .

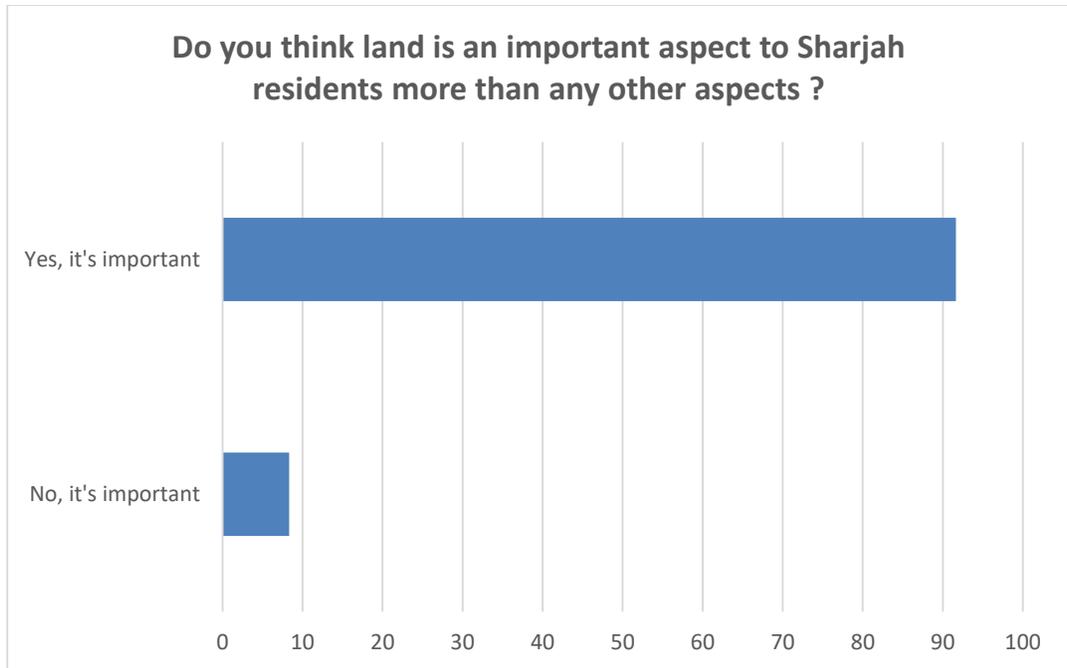
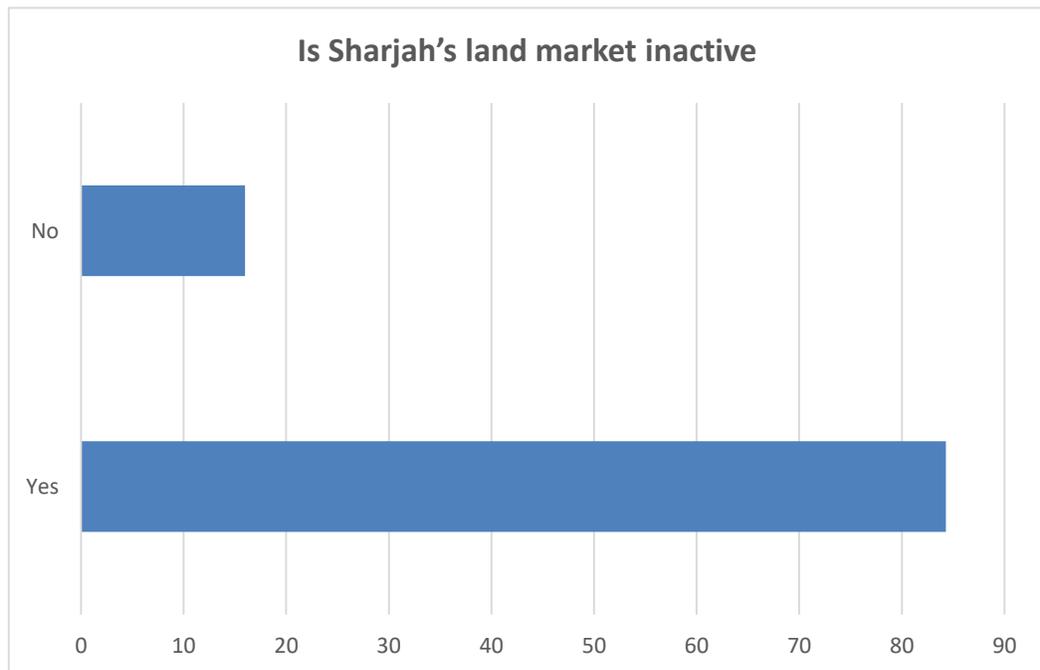


Figure (4.2.3) : Showing respondent’s opinions from Question 2 placing land as the most important resource in Sharjah ( Author ) .



Figure( 4.2.4) : Showing respondent's’ opinions from Question 3 confirming that they think the market is inactive and in need of intervention ( Author ) ..

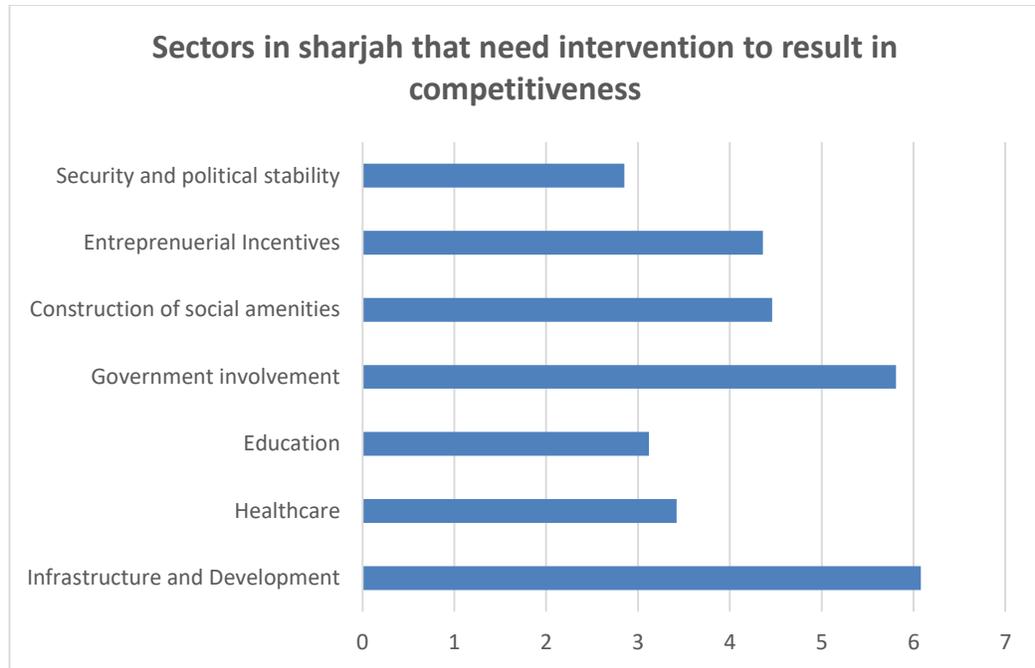
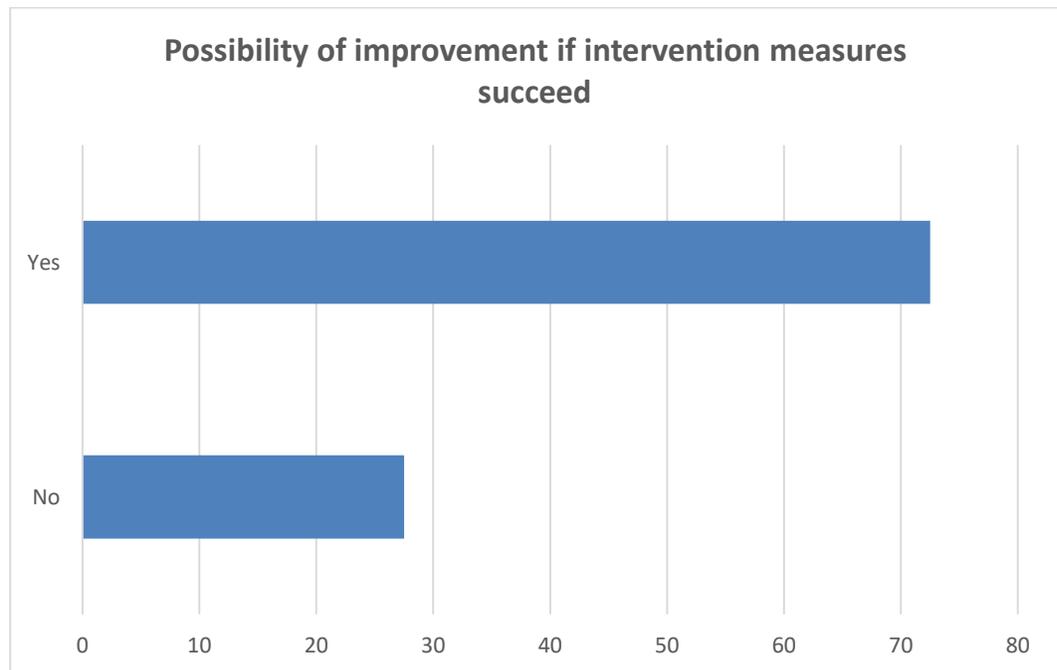


Figure (4.2.5) : Showing responses to question five covering sectors of Sharjah that require intervention to upgrade the competitiveness of the economy and the land rates ( Author ) .



Figure( 4.2.6): Showing the response to question six on the outcomes recorded by the intervention of various sectors as explored in Figure ( 4.2.5) ( Author ) .

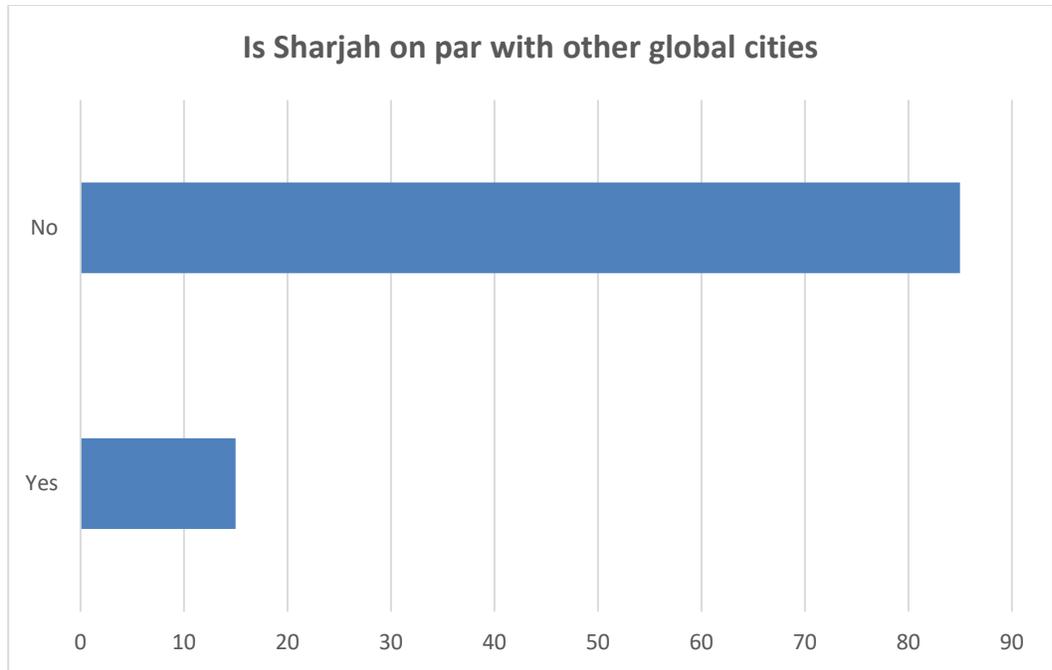


Figure (4.2.7) Showing various opinions expressed by respondents registered in response to question seven in the survey regarding Sharjah’s performance compared to leading Cities in the world ( Author ) .

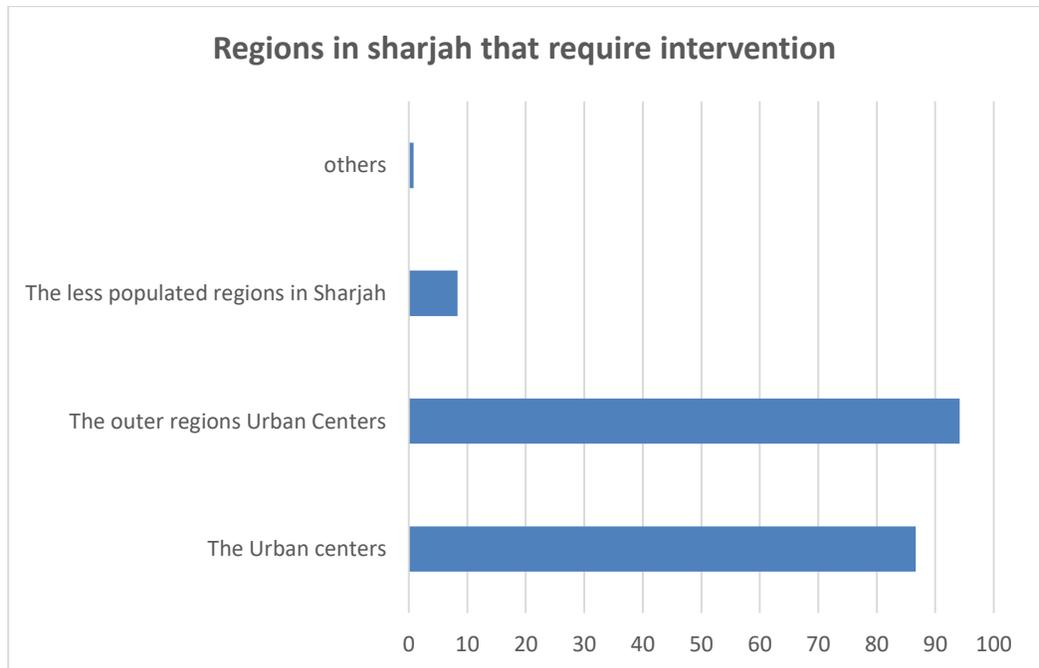


Figure (4.2.8): Showing responses to question 9 about the regions in Sharjah that are in dire need of intervention as a prerequisite to improving its land market and economy ( Author ) ..

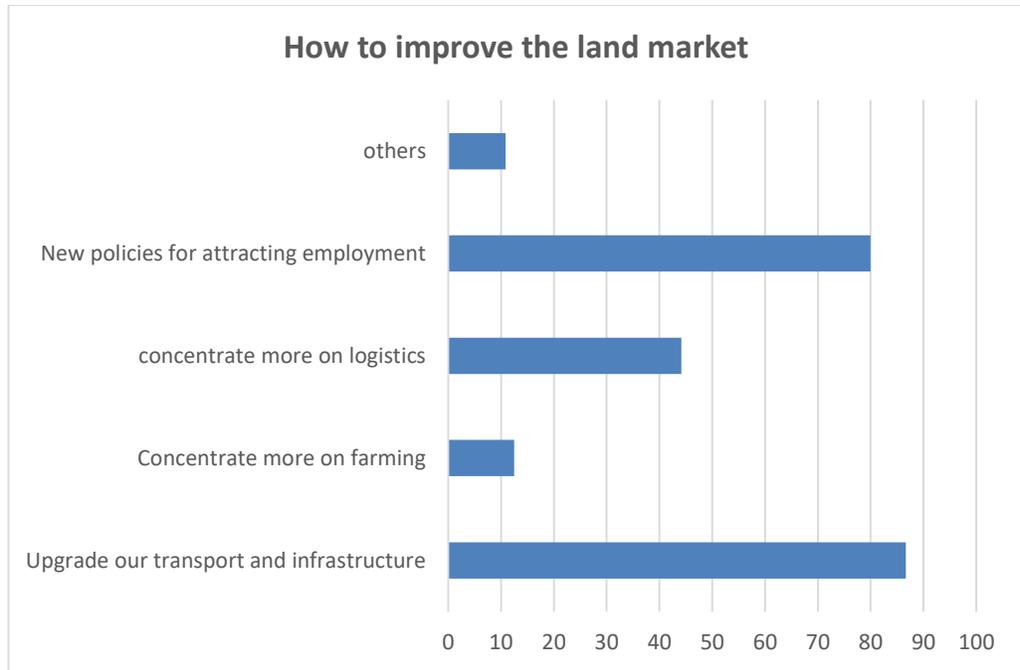


Figure (4.2.9) Showing response on question 10 on the areas that must improve to elevate Sharjah's profile compared to the rest of the world ( Author ) ..

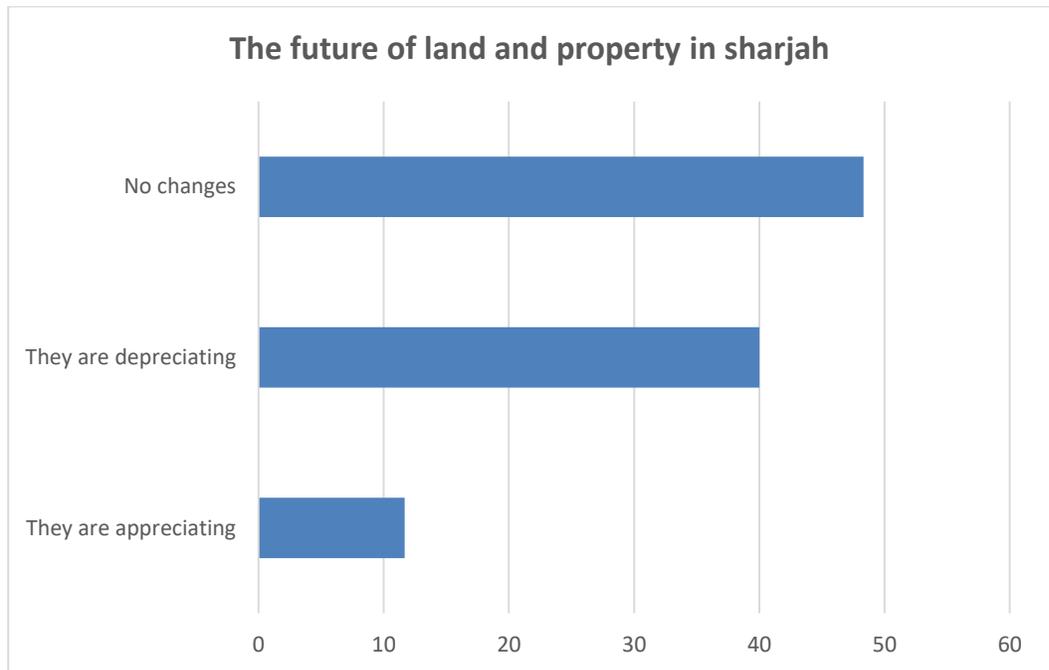


Figure (4.2.10 ): showing the future projections of the land's market in Sharjah according to question 11 ( Author ) .

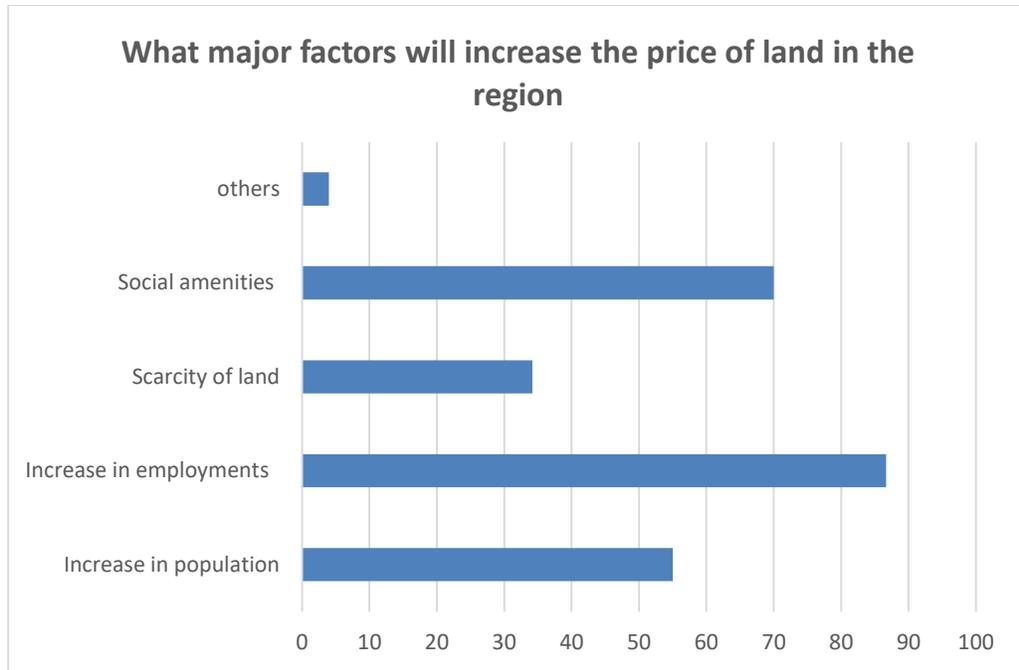


Figure (4.2.11): Showing the factors that are likely to increase the price of land in Sharjah as per question 12 ( Author ) .

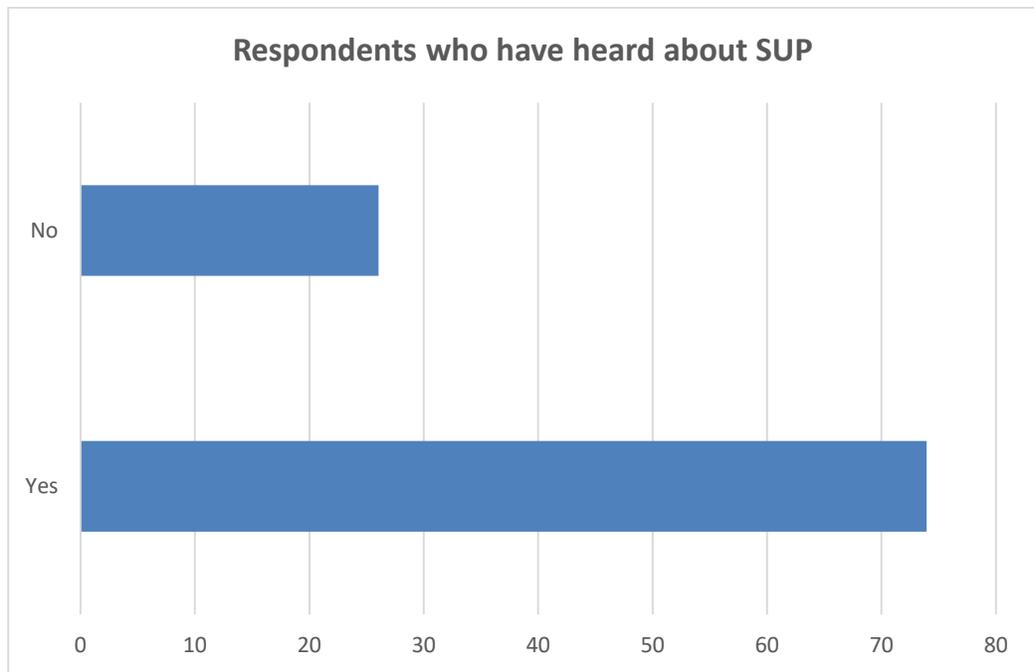


Figure (4.2.12): showing responses to question 13 about the respondents' awareness about Sustainable Urban Planning ( Author ) .

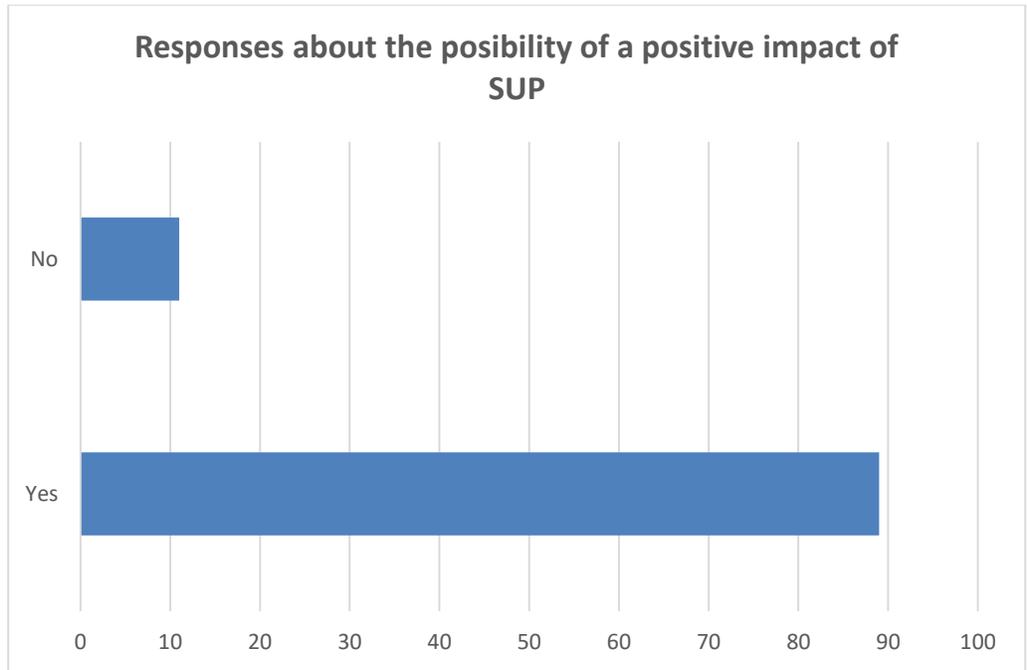


Figure (4.2.13): showing responses to question 14 about the possibility of recording a positive impact on Sharjah by introducing SUP ( Author ) .

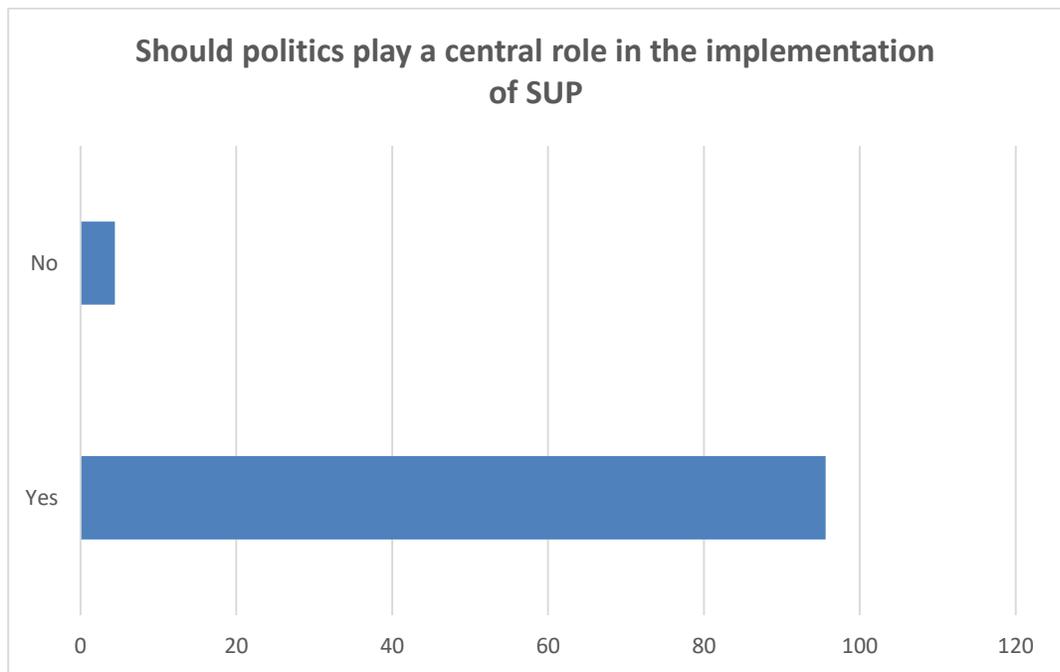


Figure (4.2.14): Showing responses to question 15 on whether politics should play a vital role in the implementation of SUP ( Author ) .

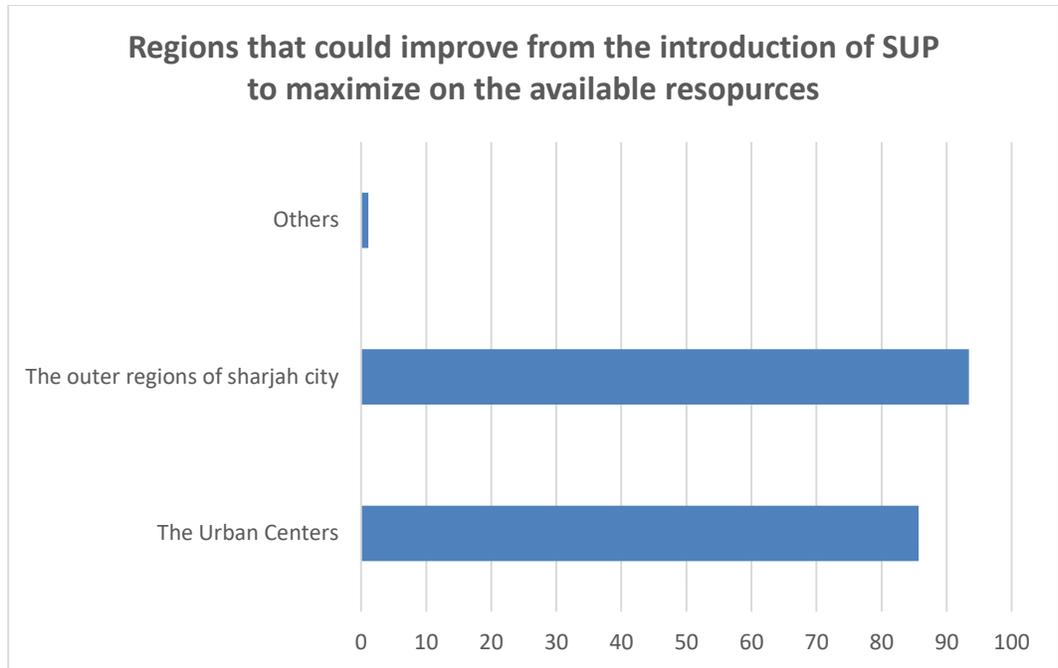


Figure (4.2.15): showing responses to question 16 about the regions that are likely to benefit from SUP that maximizes on the resources available ( Author ) .

The list provided above, and the graphical representations reiterates that Sharjah is not at the ideal position to reap the benefits of the introduction of Sustainable Urban Planning. The region is still lagging regarding developing its social, economic and environmental appeal necessary for growth that would make its land markets competitive. The results of the survey reiterate that the land market is one of the untapped resources available in Sharjah despite the apparent underdevelopment and underutilization in the region. The lackluster development record over the years could benefit from the introduction of sustainable urban planning. The SUP programs could create multiple desired results that will improve the outlook of the region, particularly for investors and the public within its borders. The introduction of SUP measures must target particular

aspects of the economy, the social, and the environment as a prerequisite to achieving the desired growth outcomes in the land market.

The respondents also intimated that the introduction of intervention measures would likely lead to counterproductive repercussions if the measures are bias. The respondents indicated that they felt that both rural and urban centers required the introduction of SUP measures to ensure that appropriate levels of growth take place in urban centers and rural areas. Naturally, the valuation of land in both rural and urban centers will vary depending on the level of interest from various stakeholders. A single-minded approach that favors urban centers will likely result in unwanted problems facing modern cities where there is an acute shortage of proper health care, education, access to social amenities that eventually dim the quality of life lived. At the same time, such an approach will marginalize the rural areas where the quality of life will similarly drop thereby creating an economic problem in such regions. Ultimately, such an approach will create unwanted environmental repercussions based on the uneven and unregulated consumption of naturally available resources in overpopulated urban centers.

According to the responses offered in the survey, the ideal approach would entail the introduction of measures to gradually address various challenges affecting Sharjah. The intervention measures in place must address the challenges affecting the infrastructure, and the social amenities. Furthermore, any intervention measures must directly address the challenges arising from the economic and healthcare shortcomings identified. The introduction of economic intervention incentives would inspire growth in the economy that will undoubtedly draw out the growth potential for the land markets in Sharjah. The responses offered by the survey respondents also indicated that it was

essential to consider the introduction of better social amenities that will entice the public into gaining interest in Sharjah. Interest in the public will eventually lead to improved land market rates for real estate companies and the public in its entirety. The survey responses provided insightful views into the ideal means of recording improvements to the current measures in places by exposing the current gaps in the relevant regulations.

The responses issued in the survey section drew opinions from the general public as to the areas that were in dire need of intervention as a prerequisite to achieving the desired level of growth and development. The respondents identified infrastructure as one of the chief factors that require immediate intervention for the benefit of the potential commercial growth for Sharjah. The respondents believe that Sharjah could greatly benefit from the introduction of better infrastructure to optimize commercial activities while easing the logistics nightmare facing numerous citizens and foreigners. The introduction of SUP measures to improve infrastructure according to the needs of the locals will spur entrepreneurship in the region. Heightened levels of entrepreneurship will create the desired repercussion that will culminate in the improved desirability of the region to potential investors and other interested stakeholders. In that regard, any concerted efforts that directly and indirectly target the improvement of the infrastructure in Sharjah will likely translate to the desired levels for Sharjah mirroring some of the levels in other regions across the globe.

The Intervention measures must also account for other important factors such as the education system, the healthcare system, the services delivery industry, and finally the regulation of various industries. Tackling the commercial or economic aspect of the problem is only part of the solution that must also incorporate other wide-ranging

measures. Improvements to the education system and the health care system will have long-term implications for the land market by gradually improving the appeal of the region to the public and real estate industry. The accompanying social amenities are likely to increase the value of land in the urban centers for individuals who find living in the city a desirable prospect. At the same time, the ideal intervention approach must also account for factors or assets outside the city limits or risk failing in its core mandate. The respondent's answers affirmed that development in populated regions will only create economic tension while also running the risk of straining the existing limited resources in urban centers.

The responses given by those who partook in the survey also confirmed that politics plays a central and often unavoidable role in the development agenda in Sharjah. The sentiments support the involvement of the government in the introduction of SUP in Sharjah as a prerequisite to success levels. The respondents acknowledge that individuals in positions of authority have the legislative authority to enact regulations and policies that will directly affect the SUP implementation agenda. Consequently, the leaders are in a better position to collect, deliberate, and act upon information by formulating relevant regulations. The development agenda in Sharjah is particularly dependent on the local authority and the national authority figures that govern the United Arab Emirates. The nature of the political undertakings by the involved stakeholders will likely dictate the policies implemented in the region and the ultimate success levels achieved by the SUP. Currently, Sharjah has a sparse system in place that barely covers the development needs of the region, thereby making it difficult to point out which sections to overhaul clearly. However, the leaders could enact various policies to cover environmental degradation,

building construction codes, exploration of natural resources, corporate social responsibility, resource allocation for construction of or improvement of infrastructural resources which are all under the purview of the government.

#### **4.3 Public Policies and Intervention Regulation to be introduced in Sharjah in cooperation with local authorities.**

Sharjah does not have a robust system supporting the implementation of sustainable urban planning targeting a sustainable future. The absence of such support structures could be detrimental to the efforts aimed at making Sharjah as competitive and appealing as some of the leading regions across the globe. The most logical approach to solving any possible challenges is the introduction of extensive and flexible policies enforceable by the government through law enforcement agencies. The relevant policies could target the growth and development of the real estate sector and the use of land within Sharjah to spark the desired level of progress. Ideally, the policies will establish the expected conduct of commercial entities in the region, regulate the exploration of natural resources, catalyze growth in the real estate industry, optimize the consumption of available resources, establish ethics for various industries, and dictate property rights. The policy formulation process will involve the collection of relevant input from research sources, such as this report, to inform the decision-making process by the local authority and industry stakeholders with the view to influencing the value of land in Sharjah.

The legislature in Sharjah and the UAE as a whole have the inherent power to enact policies and regulations that could steer development in Sharjah towards the desired SUP outcomes. Currently, the lack of clear legislative efforts in the form of policies and regulations creates a challenging environment to implement SUP at higher levels of

efficiency. Consultation with the government agencies and authority figures reaffirmed the need for the government to impose itself on the development plan adopted by Sharjah. The legislative efforts could focus on a wide range of sectors with the ultimate target being the introduction of measures that will improve land rates in Sharjah by catalyzing essential changes. The changes could influence the building construction codes, the exploration of natural resources, waste management, and disposal, government incentives into the real estate sector, and the improvement to the urban centers. The supervisory body that should oversee the introduction of SUP in Sharjah should be left to the directorate of town planning and survey in Sharjah. The change could also focus on environmental degradation and the building construction codes applicable to Sharjah. Additionally, the new policies and regulations could provide guidance for the exploration of natural resources found within Sharjah that would increase its appeal (Wong 2013). The legislative intervention could also focus on the resource allocation for the construction of or improvement of infrastructural resources that serve the needs of the public. Finally, such efforts could also cover the expectations of the public through a clear definition of the expected conduct for corporate entities through corporate social responsibility and changes to the industrial sector. At present, the local authority in Sharjah does not have sufficient regulations in place to entice the land and property market to grow to competitive levels with the world.

#### **4.3.1 Incentivized Trade Policy In Sharjah**

As a direct consequence, the land's market in Sharjah is grossly underdeveloped, but this could be a benefit to the cause by allowing the region to borrow best-practiced policies and regulations from other prosperous regions. The ideal approach to improving

the land markets in Sharjah is through the introduction of proper measures in the economy that promote growth and development. To that effect, one of the most lacking areas that require the introduction of new policies in the Sharjah industrialization process which is still lagging in comparison to global practices. Therefore, the ideal policy would involve offering lucrative incentives for foreign and domestic investment in various industries (Harrison & Rodríguez-Clare 2010). Active efforts to improve the process of industrialization will have inherent and positive repercussions on employment appeal and the development of social amenities in Sharjah. The ideal policy would entail the introduction of foreign trade zones, free ports, and facilities that aid, trade efforts (Harrison & Rodríguez-Clare 2010). Typically, the lack of regulations that dictate the acceptable conduct with international business entities serves to the detriment of a region as entrepreneurs prioritize other areas.

The introduction of a favorable foreign trade policy and trade facilitation will help attract investment from foreign firms, while also encouraging local firms to grow (Harrison & Rodríguez-Clare 2010). Typically, the free trading zones policy will attract both domestic and foreign business entities that are usually drawn by the favorable conditions for trade within Sharjah. Currently, Sharjah does not have extensive industrialization courtesy of several mitigating factors that include the lack of a clear trade policy. The region is predictably behind some of the more industrialized areas of the world whose economies benefit immensely from the industrialization process. The increasing investment appeal will directly dictate the number of employment opportunities available in the region, thereby improving the value of land in Sharjah. The implementation of a proper trade policy guarantees increased urbanization for the region

as companies settling in that region will attract additional facilities that could influence the real estate. The ideal trade policy should provide additional incentives such as subsidies and infrastructural support for companies looking to launch their business in the region (Harrison & Rodríguez-Clare 2010). The benefits that accrue from improved industrialization could contribute to the overall economic growth rate for the region in the long run.

#### **4.3.2 Property rights and SMEs Funding Policy**

Currently, Sharjah is mainly underdeveloped, and its economic potential has not been explored to optimize benefits to the locals and other involved stakeholders. The region is in dire need of entrepreneurial activities to supplement its current economic performance status. The ideal policy that could promote entrepreneurship in Sharjah entails implementation of property rights, access to funding for SMEs and start-up businesses, and the introduction of tax incentives (Saggi 2002). The feedback from the survey process indicates that entrepreneurship is one of the essential factors that the local authority and the UAE government must intervene. The introduction of intellectual property rights is a necessary step in promoting innovation in the region. Its introduction will entice innovators to the region given the optimal condition it guarantees such entities to pursue innovation without being hampered. One of the most notable challenges facing creators and innovators is the possibility of not making gains from their efforts through copyright infringements. The introduction of property rights will allow creative freedom and accreditation of the efforts by researchers or innovators by minimizing unfair competitive edges by clear copycats.

The modern-day workplace is synonymous with extreme investments into research and development to unearth the ideal formula to maximize profit. The absence of property rights allows any other individual to use information from a typical researcher, without accrediting it, and improve their product. Essentially, the copyright infringement helps the offender to bypass the costs incurred in research and development of the solution for their personal gain. Such conditions will likely drive away potential investors who might feel that such a market is too risky, particularly for companies operating in highly fluid or volatile markets. The introduction of property rights policy will serve as both as a means of dictating industry ethics while also attracting potential investors. The government, through legislators, could also introduce pertinent regulations on leasing and renting of property to create a stable system that will improve the land markets in Sharjah. The property leasing and renting regulations are an essential feature of modern-day land and property markets; this arrangement is one where the property owner transfers rights for use for a particular period, to the interested individual.

Furthermore, access to funding for SMEs and start-up businesses is an important factor in the overall economic growth given the value of such business entities as explained by Bala (2013). The respondents from the survey affirmed that Sharjah is not on par with other regions in the UAE or the globe in terms of its economic standing. Their responses permeated the land markets in Sharjah, which were mostly underdeveloped and underperforming when compared to other leading regions. The importance of SMEs and other start-up business to the economy is obvious, particularly in increasing the demand for land and property. Typically, SMEs and the startup business require stable locations that have access to a potential market to boost sales and commercial transactions.

Provision of funding for entrepreneurial ventures that fit the definition of SMEs and startups could provide the catalyst from an economic growth spurt in Sharjah. Such incentives will attract entrepreneurs looking to set up their businesses in the region, thereby inadvertently increasing demand for land and real estate property. Such an increment will automatically translate to the land prices as the region becomes a popular destination. The introduction of tax incentives could help alleviate the challenges experienced in opening up and sustaining a business in Sharjah, which inadvertently increases the value of land in the area.

### **4.3.3 Environmental Protection Policy**

Sharjah's environment and landscape is significantly different to other regions in the world where modernization and industrialization efforts are some of the critical themes witnessed. However, modernization is often accompanied by severe degradation of the environment through heavy industrialization and pollution. Either factor has the opposite of the desired impact on the value of land and the overall land market in any given region (Ebenstein 2012). As such, the logical step entails the introduction of fluid, environmental policies that protect the environment while encouraging the growth of the land market in Sharjah. Sharjah could benefit from the introduction of a similar policy, regulation to the one introduced in Australia to protect the environment. The legislative undertaking in question is the Environmental Protection Act (1997) which provide the guidelines guarding against the production and discharge of pollutants (Ross & Dovers 2008). The act also established the Environmental Protection Authority that serves as the overseeing body that makes statutory regulations and policies. Such an undertaking will help Sharjah develop on the desired course without jeopardizing the environment as is

the case in other modern cities. The introduction of this will help Sharjah improve its appeal by protecting natural environmental to elevate it to the level of other competing cities as outlined by the respondents.

#### **4.3.4 Natural Resources Protection policy**

On the same note, Sharjah has natural resources that are unique to its location that could influence the value of real estate and the land rates if managed correctly in the context of modernization. The exploration of natural resources within Sharjah's borders could have significant repercussions for its immediate economic stature in the UAE and the rest of the world (Page 2013). The land rates and the real estate industry are dependent on the choices made through policy formulations that dictate the acceptable procedure for exploration of the natural resources. For instance, haphazard exploration could damage the landscape and cause pollution on an extensive scale, thereby diminishing the appeal of the region. Therefore, the ideal policy implementation entails the introduction of policies that create limitations on the exploration efforts, particularly from the private sector of the economy (Ross & Dovers 2008). Sharjah could benefit from the implementation of resource management, ethics policy that provides limitation and directions regarding the use of land as a natural resource. The implementation of the policy could dictate acceptable ethical standards of mining, agriculture, and construction of utility buildings which eventually contribute to an increase in the value of land in Sharjah. Implementation of this policy would help Sharjah achieve its quest to improve the value of land as a natural resources according to sentiments from the respondents on the intervention measures necessary to improve the value of land.

#### **4.3.5 Green Building and Construction Codes policy**

Additionally, there is a growing need for improved building regulations to match the needs of the burgeoning population across the globe while meeting the growth objectives of Sharjah. All around the world, there is a growing trend of constructing green buildings that are sustainable for human occupation and economic use. Increasing the value of land in Sharjah requires the construction of proper buildings that are sustainable in light of the climate of the region and the needs of its occupants (Gou, Lau & Prasad 2013). Sharjah could benefit from the introduction of a sustainable building policy that defines acceptable construction practices and building safety stipulations. The sustainable building policy could provide dictations on the features of modern-day buildings in line with the overarching needs to protect the environment from pollution. Additionally, the local authority could provide legislative directives to dictate the allocation of resources necessary for the construction of essential infrastructure for transportation and communications. Such features will increase the appeal of land and the real estate market, thereby leading to the rising land prices in Sharjah. The introduction of policies that cover either interest expressed herein will lead eventually growth and development in the land market in Sharjah.

#### **4.3.6 Industrial processes, ethics and regulations policy**

At present, the introduction of a standardized industrial process will provide acceptable industrial practices in Sharjah for the corporations looking to venture into the local market. The lack of a clear set of rules could provide an unfair competing ground for the companies looking to invest locale. The provision of a clear competitive ground through regulations and policies will protect companies from unethical conduct that could

drive away the competition. The rules and regulations introduced under this section will ensure that the industrialization process does not include unethical conduct while also providing a platform for pursuing legal action against possible aggressors. Such a policy will ensure that Sharjah competes favorably against other nations that are synonymous with advanced development and urban planning. The introduction of such rules will ensure that those who feel aggrieved have legal grounds to pursue action against perpetrators. The policies will provide a clear interpretation of the expected performance and engagement in the pursuit of the business objectives in competition with other enterprises. The policies could borrow extensively from regions in Europe and Asia, which have recorded significant changes in recent years.

For instance, Sharjah has an abundance of particular natural resources and a notable absence of other resources which justify the need for introducing a regulatory body to oversee affair. The introduction of an authority body to oversee the exploration of the available natural is essential in pursuing sustainability. The limited nature of those resources implies that at one point in the future the amount of deposit left will be insufficient for commercially appealing projects. Thus, the logical step, in this case, would entail implementing limitations that apply to all relevant entities within that industry with a view to achieving sustainability. Such a policy would target companies that typically explore the raw materials from the environment with subsequent by-products from their operations. Typically, such a policy could provide direction or guidance on the corporate social responsibilities (CSR) of a business in its quest to serve consumer needs. The demands imposed on business entities by CSR aim to protect the

consumers and the environment from uncouth business practices driven by profit-making responsibilities.

Consequently, the introduction of the said policy would help minimize uncouth behavior and promote productivity that will ultimately improve the value of land in Sharjah. On the same note, the modern day business environment consists of significant business to business transactions as other entities provide raw materials to other companies. Typically, such an environment requires the introduction of regulations to protect the interests of both parties. The introduction of better regulations will help define the expected conduct of various commercial relationships between separate companies. The ideal scenario for this would involve clarification of the use of contracts between two legal entities operating within a set industry. The industry ethics and regulation policy will also provide the involved entities with a clear path for legal redress in case they feel aggrieved over a deal between the entities. The industrial process would also define the quality of products or services expected of companies operating within Sharjah. Such efforts will likely create a desire by different entrepreneurs to operate within the ideal environment created by such regulations. Increased interest in operating in Sharjah will generate demand for land and property in Sharjah leading to the desired growth levels for land markets while justifying the need for introducing sustainable urban planning.

#### **4.3.7 Land Use Regulation Policies and Land Prices Regulations Prices**

The use of land in Sharjah is subject to extensive and varying needs where the number of individuals dictates the nature of the commercial activities they choose to undertake. Typically, the diverse needs of the public and the commercial entities could end in the haphazard use of land that is not in line with the objectives of the

implementation of SUP. Such utility of land will result in counterproductive outcomes where the resources are either underutilized or over utilized thereby negating the implementation Sustainable Urban planning Consequently; the ideal policy implementation would involve the introduction of land use regulation policy which dictates the use of land within Sharjah. The regulations will dictate the construction of commercial buildings, private homes, public utility facilities, and social amenities among other essential features. Additionally, the directive to dictate land use will also make plans for the construction of transportation systems as well as communication systems that are necessary for life as part of the modern civilization. Such essential infrastructure requires detailed and considerate planning to ensure that they serve the needs of the population in the present while remaining true to the goal of sustainability.

Land Use regulation also provides the city planners with a sufficient platform to account for anticipated changes in population size, distribution, and diversity. Naturally, there is likely to be a fluctuation in the population size in Sharjah due to unforeseen reasons which necessitates implementing plans to account for such changes. The absence of planning for the changes in the population size, diversity and distribution will result in economic and political injustices that marginalize particular people in society. Consequently, such changes are essential in protecting the interests of the people and ensuring that Sharjah develops at the same rate as its competitors. Additionally, the reality of the situation is that the forces within the unregulated market are unlikely to balance the market prices at optimal levels. This is courtesy of the strong push for profitability by participating entities that could encourage uncouth behavior by participants in the land markets. Consequently, there is a need for an overseeing body that could regulate land

market prices to ensure sustainability over a reasonable period. Such a body would also regulate the fluctuation of land prices from becoming erratic and undesirable for investors by rendering a degree of stability which would catalyze development.

#### **4.4 The Impact of Adopting the Suggested Policies**

The policies suggested in this report argue in support of intervening across different aspects or sectors of Sharjah with the ultimate goal of improving its lands market. The policies suggested above will cumulatively lead to a sustained period of growth where the market grows without jeopardizing the quality of life of its resident population. The introduction of various regulations and policies will help reduce the number of uncouth practices while encouraging exponential growth. Introducing the policies will help prevent the misuse of land as a resource while stabilizing the market prices in light of any advancements achieved. Additionally, the introduction of such policies will help to reduce the number of unethical business behaviors leading to the increased economic viability of Sharjah and its lands market. The introduction of building codes will ensure that the building patterns are reflective of the underlying need to protect the environment while also meeting the needs of the public and commercial centers. Furthermore, such efforts will ensure that the natural resources, available including water and land, in the region as properly managed and explored.

The results of the research revealed that the introduction of the suggested policies could help train efforts of SUP on achieving the primary goals and objectives. The suggested policies target specific sections of society that are in dire need of intervention and run the risk of failing in their responsibilities to the public. The Introduction of such policies will likely create the desired effect on the management of available resources and

reducing the exposure to questionable overexploitation of available resources. However, there is the possibility that the said policies could bring up other unmitigated problems such as questions regarding the legal process of establishing such policies. Additionally, there is the possibility that other stakeholders might oppose such changes propagated by the policies which could lead to varying degrees of success for SUP.

# **Chapter 5**

## **Interview Results & Discussion**

## **5.1 Introduction**

The survey conducted and presented in the earlier part of this dissertation conferred critical knowledge about the state of land markets in Sharjah and the necessary intervention measures. The results of the survey process created a foundation for discussions with experts and individuals in positions of authority. The said individuals provided feedback on the suggested intervention measures based on their understanding of the region and their experience on the subject matter. The implications of the suggested policies would generally result in a positive outcome for Sharjah with particular economic and real estate improvement. Some of the remarks offered on the suggested policies indicated a need to revise and restructure the policies for improved chances of successfully meeting their target objectives. The overarching theme from the interview is that it is essential that such policies utilize existing measures, research on the current practices, and finally, engaging Sharjah's resources to obtain optimal outcomes.

## **5.2 Interview Results and Analysis**

### **Interviewee 1**

The first respondent of the interview process, Engineer Khalid Bin Buti Almuhi (the chairman of directorate of town planning and survey in Sharjah), opined that Sharjah does not suffer a decline in the economic sector. He affirmed that the quest to develop infrastructure and amenities in Sharjah is an ongoing quest accompanied by studies looking to improve Sharjah's current standing. The chairman supports the suggestion that Sharjah requires equal urban development despite the notable the challenges that come with pursuing such a goal. The chairman's responses also suggested that the economic sector is experiencing an upturn particularly on the back of the entry of many local

companies. The diversification of the entrepreneurial activities in the region is responsible for the growth from overdependence on industrial zones to the inclusion of commercial and residential projects.

The responses also indicated a distinct lack of policies covering the planning operations on an urban or regional level. The existing policies only cover land use on a localized basis, thereby exposing them to fatal flaws in achieving the primary mandate. The chairman indicated that the government should participate in the implementation of sustainable urban planning, but only as a supervisory body. The government's primary functions should include providing economic incentives, facilitating the efforts by stakeholders, and providing the appropriate guidelines for planning. Engineer Khalid Bin Buti Almuhiiri voiced support for the Public Private Participation policy (PPP) which allows for the cooperation between public and private sectors in developing the emirates. Furthermore, he also supported the policies protecting the environment and incorporating community participation in the planning process. The responses issued imply that land use is an essential aspect of sustainable urban planning that must be accounted for if Sharjah is to achieve a similar stature to other leading cities in the world.

## **Interviewee 2**

The next interviewee was Professor Mohammad Khogaly who is a holder of a Ph.D. in urban and regional planning as well as serving as a consultant in directorate of town plan and Survey in Sharjah. The professor indicated that the focus of the development efforts should not be based on the progress achieved in Dubai. The professor added that Sharjah's economy is severely lacking in comparison to the commercial appeal of the UAE to the rest of the world. He further identified Sharjah's fault to lie in its sole

focus on becoming an Islamic and educational emirate, which left other sectors of the economy underdeveloped. The professor recognized the notable absence of laws or policies that define the planning policies or even the urban hierarchy with the most notable attempt being at the state level.

The professor suggested that the role of the government should include the development of a clear vision targeting the economic and planning sectors. The intervention approaches could directly target the unique features of Sharjah, while also incorporating the use of incentives with the view to creating a vibrant business environment. The professor holds the opinion that Sharjah should be open-minded towards alternatives instead of relying exclusively on oil products. His opinion on the policies suggested in the previous chapter of this dissertation was largely positive as he reaffirmed the need to improve the situation in Sharjah. He supported the introduction of better regulations targeting foreign trade and corporate entities with a view to creating a universally applicable body of regulations for the UAE. He suggested the inclusion of the policies targeting the protection of the environment into the existing policies to form a single yet comprehensive intervention attempt. The professor further argues for an increased focus on land use for future attempts at policy formulation that seek to intervene in Sharjah's lands market.

### **Interviewee 3**

The next interviewee was Mr. Saeed Ghanem Alsuwaidi who is a real estate office manager and chairman of the Real estate committee in Sharjah. The said committee specializes in real estate law and real estate developers while Mr. Saeed is a former member of the advisory board in Sharjah. His response to the survey results asserts that

Sharjah's proximity to Dubai has been beneficial as is evident in the disparity in the land between land closest to Dubai and those furthest. Furthermore, he supports the construction of infrastructure to stimulate economic activities in central and eastern regions that include areas such as AL-Dhaid and Khorfakkan. Such intervention will help strengthen the economic position of those regions which are currently subpar compared to other regions of the Emirates.

Mr. Saeed attributes Sharjah's recent boom to the discovery of oil that sparked deviation from dependence on strictly industrialized processes. The lack of a clear planning measure in place is responsible for the challenges that face the region that includes lack of sufficient services and other notable challenges. In his opinion, some regulations have aided in the positive trajectory recorded with such laws, including the law of usufruct while others protect the developers, investors, sellers and the buyers. He cites some of the challenges facing real estate developers such as limited electricity and water supply thereby underlining the role of the government as a facilitator for development initiatives. He also agitates for a stable system of governance where a change in regime does not mean a change in the existing laws and the conducting further studies to contextualize the situation in Sharjah. Mr. Saeed expressed support for incentivizing economic activities in Sharjah, improvement or expansion of the property rights policy, the introduction of ethics policies in the economy, and stifling monopoly in all sectors of the economy.

#### **Interviewee 4**

The fourth interview was Engineer Khalid Al-Ali, who serves as the Secretary of the Urban Planning Council of Sharjah. He endorsed the results of the survey by terming

them as logical, particularly in mimicking the model adopted by Dubai where it has a specific economic identity. The engineer reiterates that Sharjah's current situation was a deliberate choice that favor education and Islamic culture. That choice justified the significant number of museums, higher learning institutions, and mosques which imply that more effort is necessary to catalyze development geared towards economic growth and sustainability. His views on the recent economic changes in Sharjah imply that diversification is quickly becoming a common theme which also indicates the needs for attracting more investors and developers. He affirms that it is necessary to introduce rules and policies to protect and improve Sharjah's current standing in the United Arab Emirates. The engineer opines for the introduction of better means of cooperation between the government and the relevant agencies in Sharjah's land markets.

The engineer suggests the use of solar power and harvesting wind to supplement the needs of the people and the industrial sector. He supports the claim that sustainable urban planning is an integral approach to bringing development to Sharjah on par with other leading cities in the UAE. The engineer opines that the proposed policies are in harmony with each other and they are likely to render positive improvements upon Sharjah's different sectors. The sentiments support corporate development and support, environmental and resource protection, and finally foreign investment policies. The suggestions are likely to spark growth and development across different industries and sectors which will benefit the residents.

### **Interviewee 5**

The fifth interview conducted was with Ms. Mona Hareb and Ms. Nora AlSalman who own the title of a lawyer and Legal Assistant. They are specialist in the drafting of

laws concerned with legal affairs of the government of Sharjah. The two women confirm that there is a need for prioritizing the introduction of better regulations to fill the void noted during these studies. They agree that sustainable laws are essential to sustained growth in Sharjah where the laws must account for gradual changes while maintaining the same level of effectiveness. They cited the Right to Exploit (Usufruct) as one of the critical legislative undertakings that seek to catalyze improved involvement by foreigners, GCC countries, and Arabs. They also cite several other laws that include the Real Estate Brokerage Law and the law of Real Estate Developer as part of the new laws introduced to improve Sharjah's standing.

According to the two women, the government's role in the development of Sharjah should be strictly for regulatory purposes, but in other circumstances, it could provide incentives and supporting facilities. They are also of the combined opinion that Sharjah is incapable of exploring alternative resources because it lacks the necessary regulations to ensure optimization of such exploration activities. Their review of the suggested policies indicates that the global incentive trade policy is a valid policy due for further research and improvement. Furthermore, their responses suggests that the intellectual property rights, the environment, and resource protection policy, and the ethics policy are good suggestions that could be incorporated into already existing laws. They cite the existing laws and authority bodies to include the Federal Law No. 24, a specialized department within the Ministry of Economy, and finally the policy of monopoly. The interview results also voiced support for the introduction of land use policies to protect the interest of the public and the users of the natural resource.

## **Interviewee 6**

The sixth interviewee was conducted with Dr. Amro Sale who is a specialist in the Sustainable Economic Planning and a former Special Economic Advisor in Egypt. Currently, he works as a consultant and an expert in the Department of Economic Development in Sharjah. His view on the results of the survey indicates that there is a notable stagnation in the development of land markets as opposed to the indicated decline. He further agrees that the development of infrastructure and social infrastructure will have a positive impact on Sharjah, but the approach must be tempered by budget controls or risk deficits at a later date. Dr. Amro affirms that the recent population growth is responsible for the economic changes, although the planning levels at the time were lackluster. Ultimately, there is a need for the introduction of measures to catalyze diversity to ensure that economic growth is evened out and Sharjah's attractiveness to investors soars.

According to Dr. Amro, there is a need for the introduction of relevant policies to ensure that development in Sharjah is on par with the demands created by the increasing size of the city. To this extent, the government must undertake active initiatives targeting the development of policies and laws that support sustainable urban development. The efforts must take account of the economic growth of the real estate market while also focusing on job creation, population control, and entrepreneurial incentives. He asserts that Sharjah lacks alternative natural resources for exploration, but the implementation of a stable SUP plan could optimize the situation. Furthermore, he supports the policies suggested due to their inherent ability to tackle different aspects of the economy and their direct implications on the value of land in the region. Ultimately, the introduction of a

favorable yet all-encompassing land use policy could be the difference-maker in Sharjah's quest to compete with other cities.

### **Interviewee 7**

The seventh interviewee was Mr. Obaid Ahmed Al-Bah, who is the Deputy Director of real estate management in real Estate Registration Department in Sharjah. He suggests that land is a very important resource, but Sharjah is facing a significant stagnation in its real estate partially due to its proximity to other states such as Dubai. According to Mr. Obaid, there have been numerous economic and real estate changes with notable projects launched in areas such as Al Zahia Project, Talal Project, and Al Jadah Project among others. He also believes that the situation in Sharjah is likely to improve with the introduction of new laws such as the Usufruct which attracts foreign investments. He also opines that the role of government in the real estate market entails facilitating procedures and developing unified procedures. Mr. Obaid also asserts that the government must take it upon itself to improve the services it offers by targeting increased efficiency in delivering electricity, water, and gas.

He expresses optimism of the impact of implementing sustainable urban planning in Sharjah where creating sustainable real estate markets is a priority. Furthermore, he argues that the introduction of sustainable urban planning must target specific areas and anticipate particular outcomes to reach the threshold that would define it as a successful intervention. He cites the creation of commercial centers and community services as some of the important performance milestone. According to his view, the policies suggested are very intuitive given their potential to improve the economic and social status of Sharjah, which could have a significant impact on the value of land. The respondent

vocalized support for the need intention targeting small companies that will likely increase employment, thereby creating better outcomes for the lands markets.

### **Interviewee 8**

The eighth interview conducted involved Engineer Abdullah Alyafei who is Manager in ENEC (Emirate Nuclear Energy Corporation) and is a business owner in Sharjah. He agrees that the provision of essential services such as roads, electricity, and water is essential to the growth of Sharjah in the desired trajectory. He asserts his view of an increased diversification in Sharjah's real estate, but admits of lacking expert knowledge regarding the policies that could help Sharjah achieve the desired prominence. In his opinion, the role of the government in the real estate market should entail reducing and easing the control of the real estate market, facilitating the proceedings for large investment companies, and allocation of resources for government agencies such as SEWA. He suggests that the region should exploit the sea and the adjacent facilities, wind power, solar energy, and nuclear energy to complement the revenue generated from the oil industry. His suggestion takes into account that Sharjah has a unique topographical and climatic environment which might not be reflective of other regions in Sharjah or the rest of the world.

According to Engineer Abdullah, the implementation of sustainable urban planning will likely lead to an improvement in the real estates as well as other fields. In particular, he mentioned introducing caveats for international trade and supporting small local businesses which could improve Sharjah's attractiveness to investors. The engineer also points out that the environmental and resources protection policy is an essential component in the overall scheme of the sustainable urban planning plot. His view

supports the quest to protect the environment from unethical exploitation that could be counterproductive to the initial intentions of introducing SUP in Sharjah. Most importantly, he underlines the importance of introducing the land use policy which could help the distribution for activities and services. The introduction of such intervention measures could lead to improved land value in the short-term while also setting up the foundation for future intervention measures.

### **5.3 Conclusive Remarks**

The overall theme from, the interview process entails a reasonable support for all the policies presented as suggestions to help Sharjah make significant improvements. The responses from the eight interviewees suggests that those policies will certainly improve Sharjah's fortunes for the foreseeable future in its quest to be as competitive as other leading cities. The majority of the responses reiterated their support for the introduction of the land use policy to ensure optimization of land as a natural resource. Another common theme is the support of the introduction of environment protection laws where the state and local authority could introduce regulations to protect the environment. The ideal approach is to introduce a reasonably expansive regulation that covers all possible facets instead of introducing numerous laws that target minor sections. Based on the response from the experts on the subject, the suggested policies have a significant chance of becoming successful barring minor additions and modifications indicated in the subsequent subsection titles revision of suggested policies.

### **5.4 Revision of the Policies**

The overall response to the suggested policies was positive save for a few minor changes and inclusions pointed out by different interviewees. In hindsight, the suggested

policies on trade, infrastructural development, and property rights policy with unanimous support as they were presented during the interview. The majority of the opinions expressed indicated the need for introducing better supporting structures and legislative undertakings that complement the suggested land use policy. The responses also indicated the need for the Public Private Participation policy (PPP) which allows for the cooperation between public and private sectors in developing the emirates. Notably, there is the suggestion that some of the laws could be incorporated into other existing laws instead of enacting them as separate laws as a means to establishing stability absent of frequent changes to the laws such as the environmental protection policy and natural resource protection policy which can merge together.

In general, however, there is acceptance of all proposed policies with a key priority for implementing the policy of Land Use Regulation Policies and Land Prices Regulations Prices , It is one of the most important policies that all the interviewees have emphasize on Studying it more in detail and more comprehensive for all the cities of the Emirate of Sharjah .

The information collected through this research revealed that sustainable urban planning is a proactive intervention measure that seeks to help the exploitation of natural resources available on earth. The Introduction of SUP introduces a measure of moderation to ensure sustainability in the depletion of available resources. Sustainable urban planning in modern society is partially implemented, but there is a growing demand for use in modern societies such as the one in Sharjah. Some of the more notable positive repercussions for Introduction of SUP is the reduction in the pollution levels, regulated consumption of resources such as land, and improved economic performance. The

literature review section of this dissertation reveals that sustainable urban planning could have significant implications in the long-term. The literature review sections revealed that various experts and scholars affirm that SUP could have significant implications for the environment that they are introduced into, but this is not always the case.

In other instances, the implementation of SUP created more problems for the locals which complicated, matters even further but in the long-term, there were notable improvements. The said improvements will have several positive implications for future generations who still depend on the natural resources to fulfill various aspects of their lives at present. Furthermore, the findings of this research revealed that SUP provides a curtailed consumption of natural resources as well as establishing acceptable codes of ethical conduct for various members of society. The logic behind this implementation derives its logic from the limited nature of the available resources which demands moderation for the sake of humanity and coming generations. The literature review section revealed another finding that was partially backed up by the findings of the survey and interview sections. The findings indicate that sustainable urban planning is not a self-sufficient model of improving the situation in Sharjah particularly given the unique features in the region. Consequently, the most logical step is the introduction of pertinent political policies to help steer SUP towards attaining its goals and objectives.

# **Chapter 6**

## **Conclusion & Recommendation**

## **6.1 Introduction**

The research conducted and documented in this dissertation indicates a growing disparity between Sharjah and the rest of the Emirates and the globe in terms of development. Sharjah is currently absent of proper laws and regulations which regulate its lands market and the real estate industry. Furthermore, the region also faces distinct challenges that prevent the progression of economic standing despite similar outcomes for other cities in the Emirates. The research conducted indicates that Sharjah is need for intervention targeting other aspects of the economy, such as the transport sector, housing and real estate, entrepreneurship, and provision of services. Courtesy of the unique challenges facing the city (including urban sprawl, population growth, limited resources, and inefficient planning) the logical step would require the government and other concerned stakeholders to take up active action. The intervention measures should target improvements that will likely increase land prices and improve the appeal of the region to investors. The research conducted involved a survey and interview process as part of the mixed method research to ascertain the type of intervention measures that would be optimal.

## **6.2 Conclusion**

The ideal intervention for Sharjah involves a concoction of different measures In light of the findings recorded for the literature review and the research study of this dissertation. The research study documented herein suggests that Sharjah adopted a unique approach to development which exposed it to slow or stagnated development over the years. The malaise from such a choice did not affect the Islamic culture and education aspect since it is the leading city in terms of educational centers, museums, and mosques.

The information documented and duly credited in chapter two of this dissertation asserts that intervention into the state of affairs in Sharjah must address different parts of the economy without explicitly focusing on land. Such an approach will improve the value of the economy while also introducing other benefits that will inadvertently improve the value of lands market and the real estate.

The most logical step to achieving improvement in lands markets is the introduction of measures targeting economic activities that rely on land as a natural resource. The approach would target the introduction of measures that target the allocation of land for construction and infrastructure, access to social amenities, security and political stability, access to particular regions of interest, government involvement, and the distribution of resources. The changes listed will improve the use of land for commercial activities with regards to the needs of the investors, the local residents, and the possibility of increased population sizes. In hindsight, the information present from this section is essential in establishing the existing body of knowledge and contextualizing it to the needs of Sharjah.

The research section of this dissertation documents the effort to gather information from respondents through survey and interview format for comparison to the findings from the literature review section. The findings from the survey section affirm that Sharjah is in dire need of intervention which targets growth through developing infrastructure, social amenities, economic growth, and improvement of healthcare. The survey process revealed a need for the local authority to cooperate with the UAE government and private sector entities to improve the land's market. The suggested policies generated from the responses of the survey provided the foundation for the

introduction of ideal measures to protect Sharjah's resources while enhancing its appeal to local and international business. The interview section provided expert opinion on the situation in Sharjah and the impact of the suggested policies in long-term stability. As per the findings in chapter five, the policies suggested are rational and exploratory enough to improve Sharjah's standing while emphasizing the regulatory, yet restrained, role of the government.

### **6.3 Limitations and Challenges**

The process of conducting this research brought forth significant challenges and limitations to the predetermined objectives of the study. The said challenges and limitations include:

1. Limited research conducted on Sharjah thereby limiting information available.
2. Limited access to recent research materials on the chosen subject matter.
3. Financial and time constraints that dictated the sample size for the survey and the interview.
4. Securing interviewing sessions with the experts and individuals in positions of authority.
5. Selective bias in the questions generated for the interview and the survey process.

### **6.4 Recommendations**

In light of the findings documented in this report, the ideal approach to rectifying the situation in Sharjah to reflect growth in the lands market and the real estate market entails focusing future studies on the possible disadvantages of implementing SUP. During the research study, it became apparent that implementing SUP could have both positive and unintended negative effects on the host city. Therefore, it is essential to study and contextualize such possibilities before adopting SUP such that information from that

research could factor into the relevant decision making. Further studies should also focus on the possible policies utilized in other leading cities that could also impact Sharjah with desirable outcomes. The outcomes of such a study would contextualize and justify some of the policies adopted for Sharjah based on the following recommendations

1. Investigate the unintended yet adverse effects of introducing SUP
2. Conducting preliminary studies on the approach adopted by other successful cities such as Dubai.
3. Investigating the unintended repercussions of the suggested policies based on the situation in other cities
4. Investigate the connection existing through cooperation government agencies, the public, and the private sector of the economy.
5. Investigating and establishing unique performance metrics for Sharjah that evaluate the expected performance of Sharjah.

## 7. Reference List

- Agudelo-Vera, CM, Mels, AR, Keesman, KJ and Rijnaarts, HH 2011, Resource management as a key factor for sustainable urban planning. *Journal of Environmental Management*, vol. 92, no. 10, pp.2295-2303.
- Ahern, J, 2013, Urban landscape sustainability and resilience: the promise and challenges of integrating ecology with urban planning and design. *Landscape Ecology*, vol. 28, no. 6, pp.1203-1212.
- Albouy, D 2016, What are cities worth? Land rents, local productivity, and the total value of amenities. *Review of Economics and Statistics*, vol. 98, no. 3, pp.477-487.
- Bjorvatn, K, Farzanegan, MR and Schneider, F 2012, Resource curse and power balance: Evidence from oil-rich countries. *World Development*, vol. 40, no. 7, pp.1308-1316.
- Bonoli, G, 2010, The political economy of active labor-market policy. *Politics & Society*, vol. 38, no. 4, pp.435-457.
- Bowen, GA 2009, Document analysis as a qualitative research method. *Qualitative research journal*, vol. 9, no. 2, pp.27-40.
- Bredenoord, J., Van Lindert, P. and Smets, P. eds. 2014. *Affordable housing in the urban global south: seeking sustainable solutions*. Routledge.
- Bulan, L, Mayer, C and Somerville, CT 2009, Irreversible investment, real options, and competition: Evidence from real estate development. *Journal of Urban Economics*, vol. 65, no. 3, pp.237-251.

- Cahill, S. and Diaz-Ponce, A.M. 2011, 'I hate having nobody here. I'd like to know where they all are': Can qualitative research detect differences in quality of life among nursing home residents with different levels of cognitive impairment?. *Aging & mental health*, vol. 15, no. 5, pp. 562-572.
- Chittithaworn, C, Islam, MA, Keawchana, T and Yusuf, DHM 2011, Factors affecting business success of small & medium enterprises (SMEs) in Thailand. *Asian Social Science*, vol. 7, no. 5, p.180.
- Creswell, JW and Clark, VLP 2017, *Designing and conducting mixed methods research*. Sage publications.
- Dachis, B, Duranton, G and Turner, MA 2011, the effects of land transfer taxes on real estate markets: evidence from a natural experiment in Toronto. *Journal of Economic Geography*, vol. 12, no. 2, pp. 327-354.
- de Roo, G 2017, *Integrating city planning and environmental improvement: Practicable strategies for sustainable urban development*, Routledge, Oxford.
- Dempsey, N, Bramley G, Power, S & Brown C 2011, The social dimension of sustainable development: Defining urban social sustainability. *Sustainable Development*, vol. 19, no. 5, pp.289-300.
- Dupras, J and Alam, M 2015, Urban sprawl and ecosystem services: A half century perspective in the Montreal area (Quebec, Canada). *Journal of environmental policy & planning*, vol. 17, no. 2, pp.180-200.
- Fidel, R 2008 Are we there yet?: Mixed methods research in library and information science. *Library & Information Science Research*, vol. 30, no. 4, pp.265-272.

- Filatova, T, Parker, D and Van der Veen, A 2009, Agent-based urban land markets: agent's pricing behavior, land prices and urban land use change. *Journal of Artificial Societies and Social Simulation*, vol. 12, no. 1, p.3.
- Geertman, S, Toppen, F and Stillwell, J 2013, *Planning support systems for sustainable urban development*. Heidelberg: Springer.
- Grêt-Regamey, A, Celio, E, Klein, TM & Hayek, UW 2013, Understanding ecosystem services trade-offs with interactive procedural modeling for sustainable urban planning. *Landscape and urban planning*, vol. 109, no. 1, pp.107-116.
- Halleux, JM, Marcinczak, S, and van der Krabben, E 2012, The adaptive efficiency of land use planning measured by the control of urban sprawl. The cases of the Netherlands, Belgium and Poland. *Land Use Policy*, vol. 29, no. 4, pp.887-898.
- Hennig, EI, Schwick, C, Soukup, T, Orlitová, E, Kienast, F, and Jaeger, JA 2015, Multi-scale analysis of urban sprawl in Europe: Towards a European de-sprawling strategy. *Land Use Policy*, vol. 49, pp.483-498.
- Hollands, RG 2008, Will the real smart city please stand up? Intelligent, progressive or entrepreneurial? *City*, vol. 12, no. 3, pp.303-320.
- Inostroza, L, Baur, R, and Csaplovics, E, 2013, Urban sprawl and fragmentation in Latin America: A dynamic quantification and characterization of spatial patterns. *Journal of Environmental Management*, vol. 115, pp.87-97.
- Johnson, MP, 2001, Environmental impacts of urban sprawl: a survey of the literature and proposed research agenda. *Environment and planning A*, vol. 33, no. 4, pp.717-735.

- Johnson, R.B and Onwuegbuzie, A.J 2004, Mixed methods research: A research paradigm whose time has come. *Educational researcher*, 33(7), pp.14-26.
- Kabisch, N Qureshi, S and Haase, D 2015. Human–environment interactions in urban green spaces—a systematic review of contemporary issues and prospects for future research. *Environmental impact assessment review*, vol. 50, pp. 25-34.
- Kennedy, C., Pincetl, S and Bunje, P 2011. The study of urban metabolism and its applications to urban planning and design. *Environmental pollution*, vol. 159, no. 8, pp. 1965-1973.
- Krause, AL and Bitter, C 2012, Spatial econometrics, land values and sustainability: Trends in real estate valuation research. *Cities*, vol. 29, pp. 19-S25.
- Lang, D.J Wiek, A., Bergmann, M, Stauffacher, M, Martens, P, Moll, P, Swilling, M and Thomas, CJ 2012, Transdisciplinary research in sustainability science: practice, principles, and challenges. *Sustainability science*, vol. 7, no. 1, pp.25-43.
- Li, LH, Wong, SKK and Cheung, KS 2016, Land supply and housing prices in Hong Kong: The political economy of urban land policy. *Environment and planning C: Government and policy*, vol. 34, no. 5, pp.981-998.
- Lin, PC and Huang, YH 2012, The influence factors on choice behavior regarding green products based on the theory of consumption values. *Journal of Cleaner Production*, vol. 22, no. 1, pp. 11-18.
- Lund, F & Skinner, C 2004, Integrating the informal economy in urban planning and governance: A case study of the process of policy development in Durban, South Africa. *International Development Planning Review*, vol. 26, no. 4, pp.431-456.

- Mačiulis, A, Vasiliauskas, AV and Jakubauskas, G 2009, The impact of transport on the competitiveness of national economy. *Transport*, vol. 24, no. 2, pp. 93-99.
- Madlener, R and Sunak, Y 2011, Impacts of urbanization on urban structures and energy demand: What can we learn for urban energy planning and urbanization management? *Sustainable cities and society*, vol. 1, no. 1, pp. 45-53.
- Mahmah, AE and Kandil, ME 2018, The balance between fiscal consolidation and non-oil growth: The case of the UAE. *Borsa Istanbul Review*.
- Maimaitiyiming, M, Ghulam, A, Tiyip, T, Pla, Latorre-Carmona, P, Halik, Ü, Sawut, M and Caetano, M2014, Effects of green space spatial pattern on land surface temperature: Implications for sustainable urban planning and climate change adaptation. *ISPRS Journal of Photogrammetry and Remote Sensing*, vol. 89, pp.59-66.
- Malekpour, S, Brown, RR and de Haan, FJ 2015, Strategic planning of urban infrastructure for environmental sustainability: understanding the past to intervene for the future. *Cities*, vol. 46, pp.67-75.
- McNichols, MF and Stubben, SR 2008, Does earnings management affect firms' investment decisions? *The Accounting Review*, vol. 83, no. 6, pp. 1571-1603.
- Meyfroidt, P, Lambin, EF, Erb, KH and Hertel, TW 2013, Globalization of land use: distant drivers of land change and geographic displacement of land use. *Current opinion in environmental sustainability*, vol. 5, no. 5, pp.438-444.
- Nanda, V and Pring, GR 2012, *International environmental law and policy for the 21st century*. MartinusNijhoff Publishers, Leiden.

- Neuman, W.L 2013. *Social research methods: Qualitative and quantitative approaches*.  
Pearson education.
- Newig, J and Fritsch, O 2009, Environmental governance: participatory, multi-level–and  
effective? *Environmental policy and governance*, vol. 19, no. 3, pp. 197-214.
- Olubunmi, OA, Xia, PB and Skitmore, M 2016, Green building incentives: A  
review. *Renewable and Sustainable Energy Reviews*, vol. 59, pp.1611-1621.
- Oueslati, W., Alvanides, S and Garrod, G 2015. Determinants of urban sprawl in  
European cities. *Urban studies*, vol. 52, no. 9, pp.1594-1614.
- Perin, C 2014, *Everything in its place: Social order and land use in America*. Princeton  
University Press, New Jersey.
- Rizzo, A 2014, Rapid urban development and national master planning in Arab Gulf  
countries. Qatar as a case study. *Cities*, vol. 39, pp.50-57.
- Rosales, N 2011, Towards the modeling of sustainability into urban planning: using  
indicators to build sustainable cities. *Procedia Engineering*, vol. 21, pp. 641-  
647.
- Rosni, NA and Noor, NM 2016, A review of literature on urban sprawl: assessment of  
factors and causes. *Journal of Architecture, Planning & Construction  
Management*, 6(1).
- Roy, S., Byrne, J. and Pickering, C 2012. A systematic quantitative review of urban tree  
benefits, costs, and assessment methods across cities in different climatic  
zones. *Urban Forestry & Urban Greening*, vol. 11, no. 4, pp. 351-363.

- Sharifi, A., Chiba, Y, Okamoto, K, Yokoyama, S, and Murayama, A 2014, Can master planning control and regulate urban growth in Vientiane, Laos?. *Landscape and urban planning*, vol. 131, pp.1-13.
- Shehu, RB, Shehu, HB and El Khatib, R 2018, Green Networking a Way to Increase Recycling Awareness. *Environmental management and sustainable development*, vol. 7, no. 2, pp.75-85.
- Smith, ME 2007, Form and meaning in the earliest cities: a new approach to ancient urban planning. *Journal of Planning History*, vol. 6, no. 1, pp.3-47.
- Stevens, P 2008, National oil companies and international oil companies in the Middle East: Under the shadow of government and the resource nationalism cycle. *Journal of World Energy Law & Business*, vol. 1, no. 1, pp. 5-30.
- Taleb, H and Taleb, D 2014, Enhancing the thermal comfort on urban level in a desert area: Case study of Dubai, United Arab Emirates. *Urban forestry & urban greening*, vol. 13, no. 2, pp.253-260.
- Tingsanchali, T 2012, Urban flood disaster management. *Procedia engineering*, vol. 32, pp.25-37.
- Tong, T, Yu, THE, Cho, SH, Jensen, K, and Ugarte, DDLT 2013, Evaluating the spatial spillover effects of transportation infrastructure on agricultural output across the United States. *Journal of Transport Geography*, vol. 30, pp.47-55.
- Tsavidaridou, M and Metaxas, T 2015, A theoretical framework on CSR and urban development.
- Tweed, C & Sutherland, M 2007, Built cultural heritage and sustainable urban development. *Landscape and urban planning*, vol. 83, no. 1, pp.62-69.

- Un-Habitat 2012, *Enhancing urban safety and security: Global report on human settlements 2007*. Routledge, Oxford.
- Van Oort, FG 2017, *Urban growth and innovation: Spatially bounded externalities in the Netherlands*. Routledge.
- Wei, Y, Huang, C, Lam, PT & Yuan, Z 2015, Sustainable urban development: A review on urban carrying capacity assessment. *Habitat International*, vol. 46, pp.64-71.
- Wolch, JR, Byrne, J & Newell, JP 2014, Urban green space, public health, and environmental justice: The challenge of making cities 'just green enough'. *Landscape and Urban Planning*, vol. 125, pp.234-244.
- Wu, F 2015, *Planning for growth: Urban and regional planning in China*. Routledge, OXON.
- Wu, Q, Zhang, X, Li, H, Chen, H, Li, Z & Shang, Z, 2015, Pro-growth giant business, lock in, sustainable urban development and effect on local political economy: the case of petrochemical industry at Nanjing. *Journal of Cleaner Production*, 107, pp.324-332
- Xie, Z., Xu, X. and Yan, L 2010. Analyzing qualitative and quantitative changes in coastal wetland associated to the effects of natural and anthropogenic factors in a part of Tianjin, China. *Estuarine, Coastal and Shelf Science*, vol. 86, no. 3, pp. 379-386.
- Yigitcanlar, T and Teriman, S 2015, Rethinking sustainable urban development: towards an integrated planning and development process. *International Journal of Environmental Science and Technology*, vol. 12, no. 1, pp.341-352.

- Yli-Pelkonen, V and Kohl, J 2005, The role of local ecological knowledge in sustainable urban planning: perspectives from Finland. *Sustainability: Science, Practice and Policy*, vol. 1, no. 1, pp.3-14.
- Yue, W, Liu, Y, and Fan, P 2013, Measuring urban sprawl and its drivers in large Chinese cities: The case of Hangzhou. *Land use policy*, vol. 31, pp.358-370.
- Zhang, X, Hes, D, Wu, Y, Hafkamp, W, Lu, W, Bayulken, B, Schnitzer, H & Li, F 2016, Catalyzing sustainable urban transformations towards smarter, healthier cities through urban ecological infrastructure, regenerative development, eco towns and regional prosperity. *Journal of Cleaner Production*.
- Zheng, HW, Shen, GQ, Wang, H and Hong, J 2015, Simulating land use change in urban renewal areas: A case study in Hong Kong. *Habitat international*, vol. 46, pp.23-34.
- Ebenstein, A 2012. The consequences of industrialization: evidence from water pollution and digestive cancers in China. *Review of economics and statistics*, 94(1), pp.186-201.
- Gou, Z., Lau, S.S.Y and Prasad, D 2013, Market readiness and policy implications for green buildings: case study from Hong Kong. *Journal of Green Building*, 8(2), pp.162-173.
- Harrison, A. and Rodríguez-Clare, A 2010, Trade, foreign investment, and industrial policy for developing countries. In *Handbook of development economics* (Vol. 5, pp. 4039-4214). Elsevier.
- Page, T 2013, *Conservation and economic efficiency: An approach to materials policy*. RFF Press.

- Ross, A. and Dovers, S 2008, Making the harder yards: environmental policy integration in Australia. *Australian Journal of Public Administration*, vol. 67, no. 3, pp.245-260.
- Saggi, K., 2002. Trade, foreign direct investment, and international technology transfer: A survey. *The World Bank research observer*, vol. 17, no. 2, pp.191-235.
- Wong, E 2013. Cost of environmental damage in China growing rapidly amid industrialization. *The New York Times*, 29.
- Bala Subrahmanya, M. H 2013, External support, innovation and economic performance: what firm level factors matter for high-tech SMEs? How?. *International Journal of Innovation Management*, vol. 17, no. 5, 1350024.
- Ebenstein, A 2012, The consequences of industrialization: evidence from water pollution and digestive cancers in China. *Review of economics and statistics*, vol. 94, no. 1, pp.186-201.
- Gou, Z., Lau, S.S.Y and Prasad, D 2013 Market readiness and policy implications for green buildings: case study from Hong Kong. *Journal of Green Building*, vol. 8, no. 2, pp.162-173.

## **8. Appendix**

## **Appendix A**

### **Local community, Agencies and Real estate offices Survey – Sharjah Emirates**

#### **The impact of sustainable urban planning on land property and markets**

This thesis is prepared in partial fulfillment of the requirements for the degree of MSc Sustainable Design of the Built Environment. The researcher seeks to explore the changes and challenges that arise in Sharjah, particularly in regards to market, economy, as well as land in Sharjah. The researcher aims to collect relevant information partially from the survey process. Basically, the survey is about collecting information about the economy, land and market in Sharjah. The researcher intends to discover how Sharjah residents see the market and land, as well as their suggestions about the possible increase of their value. The set objectives of the study were to explore Sharjah's the economy, cover the recent changes to land and properties, and finally predict the future of land in the region. The survey forms are to be filled by the respondents accordingly. Specifically, the researcher will ask you (the respondents) to answer all the relevant questions in the survey with utmost accuracy and professionalism.

**Note:** All the data given in this questionnaire will be kept confidential and will not be disclosed any third party for any purpose.

**Thank you**

Researcher: Abdelrahman Omar Alyafei

#### **Biographical Information**

Respondent Age:

Gender:

Area of Residence:

Nationality:

The number of years in Residence in Sharjah:

**Main Survey**

**1- Do think land is an important aspect to Sharjah residents more than any other aspects ?**

**( If No , what aspects are more important )**

- a. Yes it's important
  - b. No , it's not important
- 

**2- Is Sharjah’s land market inactive and why?**

- a. Yes
  - b. No
- 

**3- Do you believe that prices of land in Sharjah is the optimal price given the unique physical features of the region?**

- a. Yes
- b. No

**4- What sectors in Sharjah needs to be developed in order to upgrade the competitiveness of economy in Sharjah and land market ? ( choose more than one and please prioritized in that order ) .**

- a. Infrastructure and development
- b. Education
- c. Healthcare
- d. Government involvement
- e. Entrepreneurial incentives
- f. Construction of social amenities
- g. Security and political stability
- h. Other sectors -----

**5- Based on question 4 , does developing these sectors a guarantee that the Sharjah’s land market and economy in general will be competitive? ( If No , what other aspects should be considered )**

- a. Yes
  - b. No
- 

**6- Do you feel Sharjah is on par with development trends witnessed in leading cities across the globe?**

- a. Yes
- b. No

**7- How do you compare Sharjah to other cities across the globe in terms of its economy, land and market?**

- a. Sharjah is growing fast
- b. It lags behind many global cities
- c. No changes in the past few years

**8- Which region in Sharjah is desperately in need of new policies and sectors development towards increasing the land property market? Select all applicable answers.**

- a. The urban centers. ( Sharjah city )
  - b. The outer regions of Urban Centers (Aldhaid, Dibba Al hisan, khorfakkan and etc. )
  - c. The less populated regions in Sharjah.
  - d. Others
- 

**9- What can we do to help revive the land market ?**

- a. Upgrade our transport and infrastructure
- b. Concentrate more on farming
- c. Concentrate more on the logistics

d. New policies for attracting Employment

e. Others

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**10- What is your take on the future of land and property markets?**

a. They are appreciating

b. They are depreciating

c. No changes

**11- What factors will increase the price of land in the region?**

a. Increase in population

b. Increase in employments

c. Scarcity of land

d. Social amenities

e. Other factors

-----

**12- Have You heard about Sustainable urban planning and its principle? ( If yes, please answer questions ( 13 to 15 ) , If no please skip to question 16 ) ?**

a. Yes

b. No

**13- Do you think applying the concept of Sustainable urban planning in Sharjah will have a positive impact on the land prices?**

a. Yes

b. No

**14- Should politics play a central role in the adoption and implementation of sustainable urban planning choices made in Sharjah?**

a. Yes

b. No

**15- Which region in Sharjah is in need of new sustainable urban planning measures to maximize its potential in line with its natural resource deposits?**

a. The urban centers ( Sharjah City )

b. The outer regions of Urban Centers ( Al Dhaid , khorfakkan ,Dibba alhsn and etc.. )

c. Others -----

**16- If you have any suggestions and recommendations for economic future developments for lands , please writer them down**

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**Thank you**

## Appendix B

### Semi-Structured interview



### Government official agencies – Real state offices ( Semi-Structured interview )

#### The impact of sustainable urban planning on land property and markets

This thesis is prepared in partial fulfillment of the requirements for the degree of MSc Sustainable Design of the Built Environment. The researcher seeks to explore the changes and challenges that arise in Sharjah, particularly in regards to planning ,real state market, economy, as well as land in Sharjah , also at what extent do we apply the principles and policies of sustainable urban planning .

This study is based on your assistance and support for this research. The research will conduct an interview consisting of 3 parts: The first part is presenting the research idea and reviewing the results of the survey that were collected from the different participants. For the second part, a number of questions related to urban planning , Real estate and the approved policies and regulations in Sharjah , and finally a simplified presentation of the proposed policies for research, your answers and insights will define indicators and provide a huge support to my research and help to come up with a tangible and applicable results .

Finally, make sure that all the answers will be classified and used only for educational and research purposes .

**Thank you**

**Researcher : Abdelrahman Omar Alyafei**

#### **Biographical Information :**

Name:

Agency:

Position and title :

Phone ( Optional ) :

Email :

**Part One : Survey result**

I will be presenting the survey results and you might have an opinion about all or one of them if not we can proceed to the next parts:

- 1- Land is still a valuable resource for Sharjah and UAE as a whole
- 2- The land market in Sharjah is in dire need of intervention
- 3- Attract growth by developing infrastructure, social amenities, economic growth incentives, and healthcare improvement.
- 4- Sharjah still require extensive intervention by the local authority and collaboration with relevant stakeholders to improve its standing
- 5- Even development of rural and urban areas
- 6- Targeting the introduction of economic development-oriented activities
- 7- Politics is essential to the state of SUP in Sharjah

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**Part two : Questions in general about the study and the market**

A-What's your opinion on the real estate market and economic sector changes in Sharjah in the last decades to the present day and what was the role of planning there ?

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B- Is there any policies or regulations that organize the planning operations and real estate market in Sharjah (if yes please mention some of them ) ?

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C- What do you think should be the government role in the real estate market?

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D- Do you think there are other resources in the emirate of Sharjah that can be used other than oil or gas?

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E- Do you think applying the Sustainable urban planning principles will have any impacts on planning, real estate sector and policies?

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**Part three: A brief will be presented for each policy**

3- What's your opinion on the proposed policies and how they can be developed and whether you have suggestions for other policies you deem appropriate?

- 1- Incentivized Trade Policy in Sharjah
- 2- Property rights and SMEs Funding Policy
- 3- Environmental Protection Policy
- 4- Natural Resources Protection policy
- 5- Green Building and Construction Codes policy
- 6- Industrial processes, ethics and regulations policy
- 7- Land Use Regulation Policies and Land Prices Regulations Prices

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