# AN ASSESSMENT STUDY OF UNPLANNED SETTLEMENTS CASE STUDY: AL-RUWAIS DISTRICT, JEDDAH, SAUDI ARABIA

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#### Abstract

Saudi Arabia is a large country that includes many large cities; the second largest city is Jeddah. Like many other cities worldwide, Jeddah contains significant areas that were established as unplanned settlements. According to the definition of the United Nations (UN) many of Jeddah's unplanned settlements have been classified as slums. However, some of these unplanned settlements have strategic location near the center of Jeddah, and present great potentials as a new urban quarter. Four distinctive areas were the subject of the upgrading studies conducted by Jeddah Municipality. These are Khozam district, Bani-Malik district, Al-Boghdadiyah District, and Al-Ruwais district. This study focuses on assessing the physical condition of the built environment of Al-Ruwais district as well as to investigate the common problems of the residents such as buildings problems, infrastructure problems, and social problems. It also intends to give an overview for the suggested developing programs for the rebuilding of Al-Ruwais district by the Jeddah Municipality. The main objective of the study is to identify ways in which interventions aimed at delivering services to the low-income residents can be better designed and targeted, as well as to define set of recommendations for future unplanned settlements upgrading.

Keywords: Settlements, Urban, Upgrading, Jeddah

#### Introduction

Saudi Arabia is a large country with an area of approximately 2,149,690 sq. km. and a population of approximately 30 million (Saudi

population is 20,271,058 million). Population density is thus approximately 15 persons per square kilometer (CDSI, 2014). Jeddah is the second largest city in Saudi Arabia, and represents a gateway to the two Holy Cities of Makkah and Madinah. Its population is almost 14% of the total population of the kingdom, (2010 census). Jeddah occupies 5460 km<sup>2</sup>, and its population is 4.2 million. The city of Jeddah is located on the west coast of the Saudi Arabia in the middle of the eastern shore of the Red Sea. The climate of this geographic area affects the weather of Jeddah; high temperatures and humidity during summer season and the prevailing winds are North West. The most common type of rainfall is that accompanied by thunderstorms, which usually fall during the winter season as well as in the spring (JMW, 2014).

which usually fall during the winter season as well as in the spring (JMW, 2014). Jeddah is currently growing quickly due to flourishing diverse economy resources and significant location as a strategic western gateway to the Kingdom of Saudi Arabia. However, Jeddah faces considerable urban challenges, where the uncontrolled expansions of the last century have left the city with an extensive poorly focused structure, a service infrastructure which does not reach all citizens, and number of undeveloped areas surrounding the heart of the city. In response, the Municipality of Jeddah has initiated a comprehensive growth strategy for developing the city as a whole and upgrading the undeveloped settlements (El-Shafie, 2010). Al-Ruwais districts dates back more than 150 years and is one of the oldest districts outside of the gated old town (Al-Balad), along with Al-Nuzla and Bani Malik. The residents were fishermen and sailors and the locals used to call Al-Ruwais the "sailors' district" (Sidiya and Al-Fardan, 2009). Al Ruwais district lies in the central part of Jeddah ant it occupies about 346 acres (1.166.525 square meters). The estimated population of Al-Ruwais is 34000 residents [Saudi and non-Saudi] (ARAB NEWS, 2011). A demographical study of Al-Ruwais district from other nationalities. More than half of the surveyed residents said that they have been living in the area for over 10 years (Ghazawi, 2014). However, Al-Ruwais district presents an outstanding opportunity to create a new vision of upgrading an unplanned settlement in Jeddah according to the principles of urban design. The location of this district in the heart of Jeddah makes it of prime importance to be developed and upgraded in order to integrate the district harmoniously to the urban fabric of the city of Jeddah.

**Study Methodology** The study followed a research method of 'case study and multiple strategies', which included different research strategies and tactics such as:

- 1. Site visits to record and photograph the current situation in the district
- 2. Extensive literature review for the media coverage to Al-Ruwais district.
- 3. Collecting information, views, and opinions from the current residents and users of the district.
- 4. Investigating the suggested projects by the authority to develop Al-Ruwais district.

#### **Unplanned Settlement Patterns**

**Unplanned Settlement Patterns** There are about 54 unplanned settlements in Jeddah in Saudi Arabia, which represent a considerable vital and necessary housing for low-income populations (fig.1). Although the majority of the populations of these areas are from many different countries with different traditions and cultures, they have adapted themselves to the cultural and economic characteristics of their areas. The housing quality in unplanned settlements is generally poor, and the designs of these houses are developed by their occupants' accumulated life and practical experiences. However, the settlement patterns in these unplanned areas vary dramatically from one settlement to another even within the same region, because of these differences in cultural background and available resources of the residents. and available resources of the residents.

It is believed that unplanned housing developments are more political issue than a technical or design-related one, defined by government policies, land use, economic, and public services. In addition, other political issues including, market interventions, and housing prices and demand are of prime

including, market interventions, and housing prices and demand are of prime importance to the development of unplanned settlements. However, land use and provision of services in Al-Ruwais, can be perceived as the outcome of the interacting social, economic and political environments of Saudi Arabia. Within this political context, the urban pattern of Al-Ruwais district has developed mechanisms to manipulate the political machinery in order to obtain housing and services. Since these practical mechanisms have become a common strategy among unplanned areas, they have been adopted as settlement patterns. Al-Ruwais settlement pattern can also be the result of the adaptation of traditional rural patterns of the residents to the urban life. Nonetheless, it seems that Al-Ruwais residents got control of the creation of their own living environment and produced built environment better adapted to their economic capacity as well as cultural background.



Fig.1. Jeddah's informal Settlements. (Stonor, Space Syntax Limited, 2013)

#### **Existing Urban Context**

The analysis of the existing urban context of Al-Ruwais district would include, site location, land-use, public services, buildings physical condition, and buildings heights.

#### Site Location, Road-Network

Al-Ruwais represents the heart of Jeddah and is bordered by four main roads, Al-Andalus Road in the west, Al-Madinah Road in the east, Palestine Road in the north, and King Abdullah Road in the south. The district is also close to the Cornish Road. Some parts of the district are excluded from the study, because they include buildings with good physical conditions. These are mainly, all the buildings, which overlook King Abdullah Road, almost two-third of the buildings overlooking both Palestine Road, and Al-Madinah Road, and almost half of the buildings overlooking Al-Andalus Road (fig.2).

There are three main internal roads (Hail Road, Abu-Feras Al-Hamadani Street and As-Sayyid Street), which bisect the district and connect Al-Andalus Road, Al-Madinah Road, and Palestine Road. However, the area of study is bordered, as the following map shows by, parts of both Al-Andalus Road and Hail Road in the west, parts of Al-Madinah Road in the east, a small part of Palestine Road in the north, and number of internal streets in the south. Generally, the road net of the area of study reflects a variety of street types, which vary in width in relation to the length and function of the street.



Fig.2. Site boundaries and road network map (Author, 2014)

#### Land Use

There are many different land uses in Al-Ruwais district, but the majority is residential, which generally located in the heart of the district. The height of these buildings ranges between one and three floors. The physical condition of the buildings varies, but the majority of the residential buildings in the area of study are in a bad condition. There are few public buildings, including a medical clinic and hospital. The district is served by nine schools and 19 mosques (Sidiya and Al-Fardan, 2009). Commercial buildings represent a small percentage, and the majority of the shops are part of the ground floor of the buildings overlooking the main streets. Generally, the district is characterized by the lack of open public spaces and parks.

#### **Urban Problems and Context**

The urban design of unplanned areas is intended to improve the quality of people's living conditions. It also contributes significantly to the quality of the built environment as a whole, specifically in mixed nationalities community such as the one in Al-Ruwais district. There is no doubt that the authority in Jeddah has undertaken many serious attempts to improve the living conditions in the unplanned settlements, but they could not keep pace with the rapid population growth in these areas. In fact, the main reason behind the growth of these informal unplanned settlements could be the lack of a sustainable housing policy in Jeddah. Although the authorities have enough resources allocated to improve or maintain the infrastructure and services, they have been faced by many problems and

obstacles that delayed the development of these areas. These include housing, health and environmental conditions.

Al-Ruwais district has been the subject of many of the local Al-Ruwais district has been the subject of many of the local newspapers, which featured many of the existing problems that have threaten people lives and announced these problems for the responsible authority to take a positive action and find urgent solutions to save the area. The district is occupied by national residents as well as residents from other countries, mostly from Pakistan, Egypt, Sudan, and some Asian counties. The analysis of the site visit and the media reports shows a deficiency in many aspects in the district including, buildings' physical condition, infrastructure, and social problems. A survey conducted by Jeddah Municipality showed that between 52 and 59 percent of Al-Ruwais' inhabitants lack the most basic of services, such as electricity, water, sewage, etc (Ghazawi, 2014).

#### **Buildings problems**

Buildings problems Buildings' physical condition in Al-Ruwais district is mostly bad and tends to get worst and collapse (fig.3). There is an obvious contradiction between new and old buildings, which create aesthetic disharmony in the site. Many of Al-Ruwais buildings have been built illegally using mud, wood and other building material. A Survey conducted by Jeddah Municipality showed that 348 buildings should be demolished or repaired. Generally there are number of common characteristics of both old and new buildings including:

- 1. The majority of the buildings are in a very bad physical condition and some of them are falling apart and in need of renovation and reconstruction (fig.4).
- 2. Some main Entrances are below the street level
- 3. No interesting views at all.
- 4. Limited and hard access for visitors of the residents as well as lack of parking areas.



Fig.3. Collapse of buildings. (Week Online, Jun 30, 2010)

Fig.4. (Author, 2014)

#### Infrastructure problems

Deteriorating infrastructure is a major issue, which creates unhealthy and polluted environment for the residents (fig.5). There are number of features that characterize Al-Ruwais district including:

- 1. Many streets are flooded with sewage water, which creates unhealthy distinct environment.
- 2. Electricity is down most of the time, and shared by neighbors.
- 3. Electrical wires are exposed and cause a fear of sudden fire.
- 4. Poor piping system and lack of building maintenance.
- 5. Water deficiency due to improper drainage system and residents are out of water most of the time.



Fig.5. Deteriorating infrastructure and exposed electrical wires. (Author, 2014)

#### Social problems

Al-Ruwais district is characterized by its small-size houses, which are occupied by big family of 5-10 members (fig.6). Children sleep with their parents, which might cause severe long term psychological problems. However, there are other problems that affect the social life of the people including:

- 1. Problems of theft and kidnapping.
- 2. Problems of drugs and alcohol addiction.
- 3. Problems of crime and abuse.



Fig.6. Social Problems because of the small size houses and lanes. (Author, 2014)

# **Hygiene problems**

Al-Ruwais district is characterized by number of hygiene problems including:

- 1. Unhygienic state of garbage skips, broken furniture, toilet seats, and rotten food in the streets (fig.7). 2. Many areas of the district are characterized by a sickening smell
- emanating from the uncollected trash.
- Many of the areas are exposed to health problems, because of the mosquitoes, rodents, feral cats and other pests, which breed on these piles of garbage.



Fig.7. Disposed garbage accumulates in the streets (Author, 2014)

#### **Al-Ruwais New Development Project**

Al-Ruwais New Development Project The Jeddah Development and Urban Regeneration Company (JDURC), in collaboration with Raisan Arabian Company, are implementing Al-Ruwais Development Project. The main aim has been transforming Al-Ruwais neighborhood into a world-class urban district. The project intends to house more than 60,000 residents, as well as generates over 80,000 jobs. However, the new proposed urban project consists primarily of mid-rise perimeter blocks that create human-scaled, pedestrian-friendly environments. It is also characterized by a mixed-use quarter, which comprises many different building functions including, residential, medical, religious, entertainment, and an integrated mass-transit hub (fig.8). The main paths were considered in the current site to determine which routes should be were considered in the current site to determine which routes should be retained in the new street pattern, and the important buildings and spaces were identified to be integrated into the new urban design (JMW, 2014).



Fig.8. The new urban plan of Al-Ruwais District (Herson, NOW, vol. II, Issue 3)

The design concept of the proposed new development is based on creating the Jeddah Great Park, as the main focus of the new development. The great Park will be marked by 'Twin Towers' in the east and west (fig.9). They will represent outstanding landmarks that will remarkably contrast with the mid-rise construction around them. It also contains nine distinct neighborhoods arranged around the central park. Each neighborhood has number of community clusters and their related open spaces. However, the new design intends to integrate planning, architecture and landscape in order to provide Jeddah with a new signature space (JMW, 2014).



Fig.9. Twin towers frame Jeddah Great Park, and contrast with the predominant mid-rise buildings. (Herson, NOW, vol II, Issue 3, 2012)

### Challenges of the new development project

Challenges of the new development project The authority has put a plan to achieve and realize Al-Ruwais new development. They suggested that the current residents of the district will be compensated for their properties, in order to make way for the new project. The total value of compensation for the residents' properties in the area was estimated at more than SR3 billion (ARAB NEWS, 2011). This plan did not gain its intended goal because the residents of Al-Ruwais district opposed the eviction plan and refused to accept the compensation. They believed that the amount of the compensation is not enough and even the methods of distribution is unfair (ARAB NEWS, 2011). The residents also have expressed their worry about the new

distribution is unfair (ARAB NEWS, 2011). The residents also have expressed their worry about the new development in their area, because of the obscured procedure of the new development. They wondered why the company did not take the historical background of the area into its consideration, before taking the decision of removing the whole district. One of the residents explained that, old areas in the developed world are always important and well preserved, irrespective of the width of their streets and avenues. For instance, the most distinctive, beautiful, and attractive places in Paris are the oldest ones (Alghamdi, 2012). This proposal has faced many unresolved issues, which contributed to the delay of the implementation process of the project. It seems that the government did not allow an adequate time to address the different important community issues and assumed that the residents will accept the new project. For example, they decided the financial compensation, but they did not study the social value of the houses which have been the residents' homes for a long time. Another important factor has been the lack of transparency, which represented a critical issue where the authority should have involved Al-Ruwais residents in the decision making process, in order to gain their participation and willingness to achieve the new project.

#### **Conclusion and recommendations**

**Conclusion and recommendations** Unplanned settlements represent a major challenge in the beginning of the twentieth-first century for Saudi Arabia in general and for Jeddah city in specific. However, it is timely demand to bring about an affirmative transformation in the quality of living of unplanned areas based on understanding the nature of the district inhabitants, rather than bulldozing the area. The previous discussion shows that the authority did not adopt a soft approach to dealing with the problem of redeveloping Al-Ruwais district. In addition, it seems that the main aim of the government was not to upgrade the district, but to evict the area and give way to the implementation of completely new urban high-standard buildings, and the emergence of a new community with new values and expectations. Consequently, the residents of

Al-Ruwais district are facing the question of where to go after the implementation of the government redevelopment plans for their district. The challenge of unplanned settlements is not simply one of a housing policy, but it is the need for a holistic approach that addresses the housing needs of the existing residents. It seems that there has been little theoretical and empirical research about how the upgrading of unplanned settlements in Jeddah should be addressed. Therefore, a pragmatic research to deal with every aspect of the residents' life should be more consistently applied, in order to allow for a better and logical understanding of the most essential issues faced by the residents of Al-Ruwais district. In addition, it would allow for a better integration of the residents in national political processes processes.

However, this study developed number of recommendations that would help in generating appropriate technical solution to the requirements of developing and upgrading Al-Ruwais district. These recommendations can also be considered as a key guideline to be adopted for the upgrading of other similar communities. These recommendations include: 1. The authority should have a vision that contributes to sustaining the

- life of the district.
- The problems of the district have to be faced by finding solutions rather than by replacing the whole district with a new one.
  Providing practical solutions which are cost-effective and easy to
- construct and maintain.
- 4. Efforts are also needed to help the residents of the area to think positively about their role in the development processes in order to create distinctive places.
- 5. Creating places which reflect its distinctive identities and are safe and enjoyable to live in.
- 6. Generating streets and places that encourage greater social interaction between the residents and raise safety and security factors.
  7. Creating a well-connected street network that integrates the existing streets of the district to the city's global network; as well as provides

streets of the district to the city's global network; as well as provides easy and comfort movement. Although this analytical study touched upon many critical and sensitive issues for both the authority and the residents of Al-Ruwais, the question remains controversial, as whether the government would adopt an approach of preparing housing proposals to be based on these ad hoc patterns, and allow all these social groups to benefit from upgraded urban life, or to create a completely contemporary and modern project based on the evacuation or relocation of the whole residents of the district relocation of the whole residents of the district.

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