



THE SOCIAL AND ECONOMIC IMPACT OF SLUMS PROJECTS ON THE DWELLERS IN MAKKAH AND JEDDAH OF SAUDI ARABIA

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ABSTRACT

This paper aims to present in details the most common challenges faced by slum dwellers and rise during the upgrading and replacement projects in both Makkah and Jeddah in Saudi Arabia. The research focuses on social, economical and constructional challenges from the dwellers point of view. The slum problem is growing rapidly in Saudi Arabia in general. Makkah and Jeddah are two main cities which have the slums problems very clear. Many researches explored the slums phenomena in the two cities, but they did not cover all aspects of the problem. Many social, economical and constructional challenges need to be studied. To achieve this goal, an interviews survey was conducted with 36 family heads living in slums in Jeddah and Makkah. The required data were formed in a survey consisting of 26 questions about the different challenges. The questionnaire was classified into four sections including general information, current available facilities, presence of upgrading or replacement projects, and finally the social challenges impact on slum dwellers. The questionnaire results are analyzed and findings are extracted. Regarding replacement projects, the most emphasized survey result is the dissatisfaction of the dwellers toward the properties compensation amount due to high prices of lands and construction costs of new alternative houses. The most impressive social challenge is the negative impact of desertion of the place in which dwellers were born and lived for most of their lives which lead to the rejection of slum projects. Sometimes, this rejection took the form of violent resistance of dwellers to evacuate slums as a preparatory stage for the demolition. Therefore, the majority of such projects were usually delayed and stopped for months. Other obstacles were represented in the closure of roads during the upgrading projects and consequently, the halting of the economic activities such as local commercial shops. It is highly recommended to revise the properties compensation system. Also, the quality of life in the upgraded slums should be maximized through the improvement of different infrastructure services including pure water, sanitary, and electricity services. Some other services can be introduced such as the construction of new parks, playgrounds, sporting clubs and other means of entertainment for the sake of the current dwellers and the next generations.

Keywords: Slums, Dwellers, Upgrading, Municipality, Socio-economic, Infrastructure.

1. INTRODUCTION

Nowadays, it is widely acknowledged that the spread of slums all over the world and the increase in their population are major global challenges[1]. The definition of slums was introduced by many researches in almost similar forms. The common definition of slum is the informal and unplanned settlements within cities that have either inadequate housing and miserable living conditions and/or the housing cost in the planned urban area is so high that a

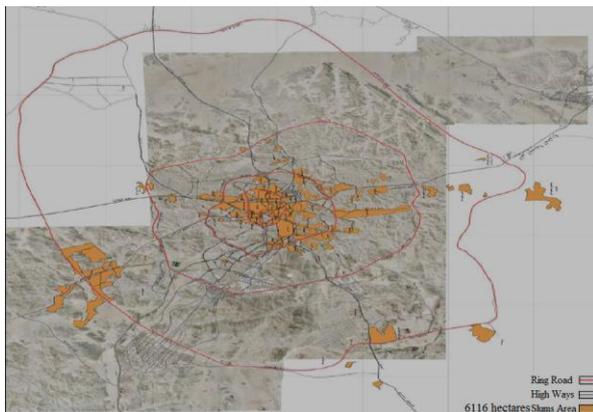
certain category of the poor cannot stand with such cost levels [2]. Almost all slums in the world suffer from overcrowded area, with so many people living in relatively small areas. Accordingly, most public services and infrastructure facilities provided are weak and inadequate to save the minimum living needs of slums dwellers.

According to the United Nations, one seventh of the worldwide population lives in an unplanned settlement, totaling about 850 million people globally [3]. In some low income developing countries, about 80% of the population lives in slum areas [4]. According to the United Nation, however, the number of slum dwellers in the countries adopting upgrading programs have had a remarkable reduction. For example, in Tunisia a decline in the number of slum dwellers from 425,000 in the 1990s to 188,000 in 2005 was recorded [5].

Slums upgrading projects represent a big challenge to governments especially in the developing countries where they suffer from the lack of financial resources. Many countries have been following some slum upgrading programs as a key component of the country's urban planning along with investments in the infrastructure systems such as water feeding, sanitation and electricity.

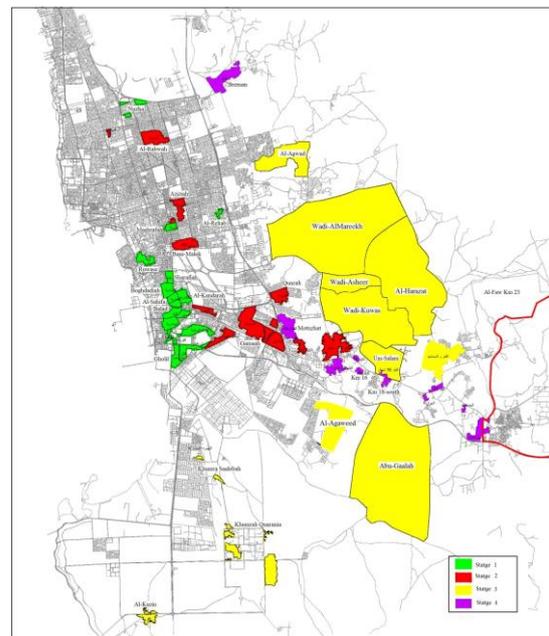
In Saudi Arabia, due to the population growth, high prices of lands and authorities lack of control, unplanned and illegal settlements have rapidly grown in the last few decades [6]. The slum phenomenon is evident in Makkah and Jeddah due to residual of pilgrims after Hajj. According to a report by the Municipality of Jeddah in 2008, one third of the city population live in unplanned areas representing 16% of the city gross area [7]. Figure 1 shows the distribution of slums in both Jeddah and Makkah.

Since 1990, the Saudi government has been giving great consideration to the slums problems, particularly in Jeddah and Makkah. The Saudi authorities assigned a large budget to overcome the problems through a series of ambitious upgrading projects which started in the previous decade. The upgrading projects aimed to control the problems resulting from the tremendous growing of slums and also to change the current situation of low quality of life for slums dwellers. However, there is a lack of reported researches on the social and economic challenges that face slum dwellers during the execution of upgrading projects.



a. Makkah Slums Distribution

Source: (Makkah Municipality, 2016)



b. Jeddah Slums Distribution

Source: (Jeddah Municipality, 2016)

FIGURE 1. The Slum distribution in Makkah and Jeddah

2. OBJECTIVE AND METHODOLOGY

This survey research aims, as a preliminary study, to identify the challenges faced by dwellers and associated with slum replacement and upgrading projects in both Makkah and Jeddah. To achieve this objective, a questionnaire is developed to guide a sample of 36 semi-structured interviews with dwellers living in slums in both cities. The questionnaire survey interviews were employed as the method of data collection. The collected data was then analyzed and findings and conclusions were extracted. Figure 2 show the questionnaire sequential phases.

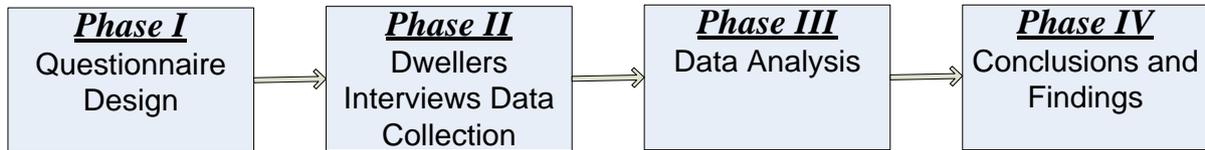


Figure 2. The Questionnaire Components

3. DATA COLLECTION

3.1 The surveyed sample

A series of 36 family heads of slum dwellers were selected to reflect on, as much as possible, the different types of challenges associated with the slums replacement and upgrading projects in both Makkah and Jeddah. The survey included dwellers from both upgrading and replacement projects to measure the impact and challenges of the two types of different projects. Figure 3 shows that 64% of interviewed dwellers are located in replacement projects represented in Ruwaise slum in Jeddah, and Kos-Al-Nakassah slum and King Abdulaziz street projects in Makkah. On the other hand, 34% are located in upgrading projects represented in Gholeel slum in Jeddah and Al-Khansaa' street project in Makkah. It should be noted that upgrading projects were similar to replacement ones since the most common upgrading type is the creation of new streets in the crowded of slums. Such process needs the demolition of specified buildings that are located in the new streets paths. This feature is applied in Gholeel, as illustrated in Fig. 4, and Al-Khansaa' slum projects [1].

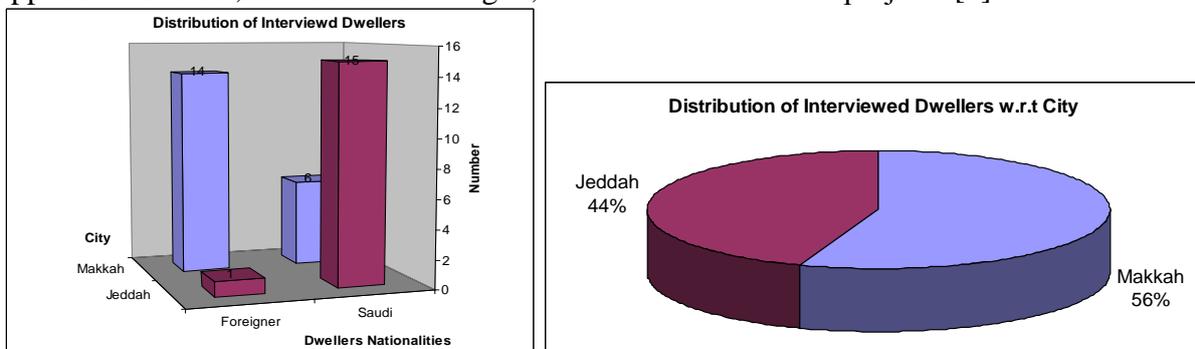


Figure 3. Distribution of Interviewed Dwellers according to nationality and city

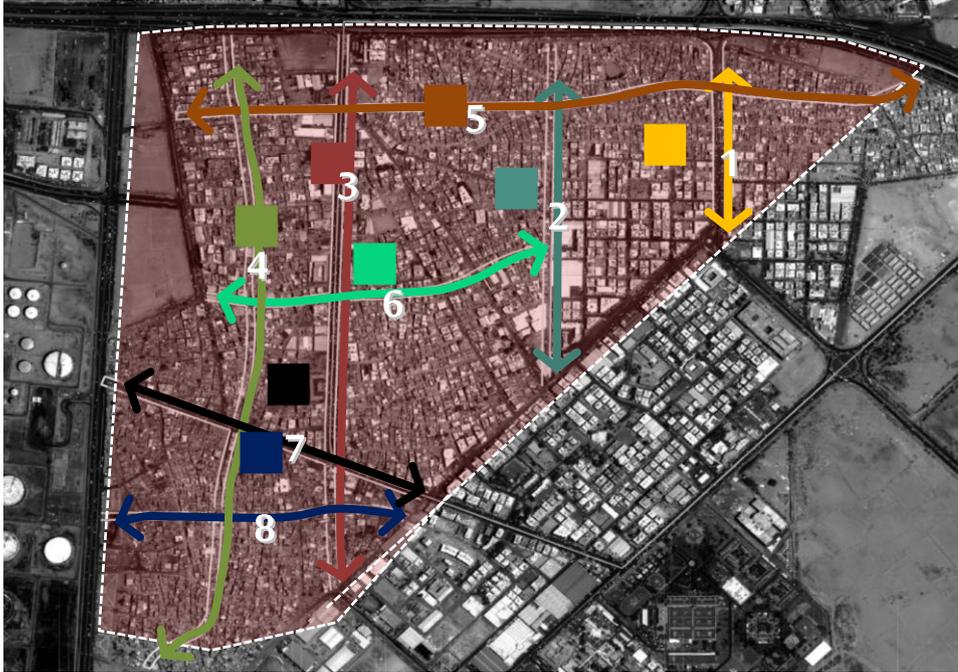


Figure 4. Map of the new planned streets in Gholeel slum project

Source: (Jeddah Municipality, 2016)

The research team was keen to select an equal number of interviewees from both cities. The interviewed persons were heads of their families to ensure, to some extent, the accuracy of the collected information and answers. The interviews included also some discussions that lead to significant findings. The collected data fulfilled the following characteristics: [10]

- Validity: Data measures the impact of upgrading projects on slum dwellers and that is what is intended to measure.
- Reliability: Data is measured and collected consistently according to standard definitions and methodologies.
- Completeness: All data elements are included as per the methodology specified.
- Precision: Data is characterized by sufficient detail represented in the 26 questionnaire answers.
- Integrity: Data is protected from deliberate bias or manipulation for political or personal reasons.
- Timeliness: The survey was performed in 2016, therefore, collected data is up to date.

4. QUESTIONNAIRE DESIGN

4.1 The Questionnaire Components

The questionnaire covers the following aspects:

- 1- General information about the interviewed slum dwellers including slum and household Information.
- 2- Services and availability of upgrading/replacement projects in the dweller's slum area including the status of different services and the method used by authorities to inform dwellers with the project nature.
- 3- Economic impact of the project declaration on slum dwellers including properties compensation and added or removed economic activities due to the project execution.
- 4- Social challenges to dwellers which investigate the impact of the project on dwellers including safety during the construction process, both permanent and temporary displacement of families and the deactivating of public services.

5. KEY RESULTS

Figure 5 and tables from 1 to 5 summarize the key results of the interview questions.

5.1 Figures

Figure 5 shows the distribution of some responding of the questionnaire. For example, question 7 explains that only 17% of surveyed sample managed to create small temporary

business such as sale of canned drinks to contractor’s labor and sale and purchase of the valuable construction debris elements. Another example, question 21 explains that 64% of interviewed dwellers approved that long durations of construction shifts caused disturbance.

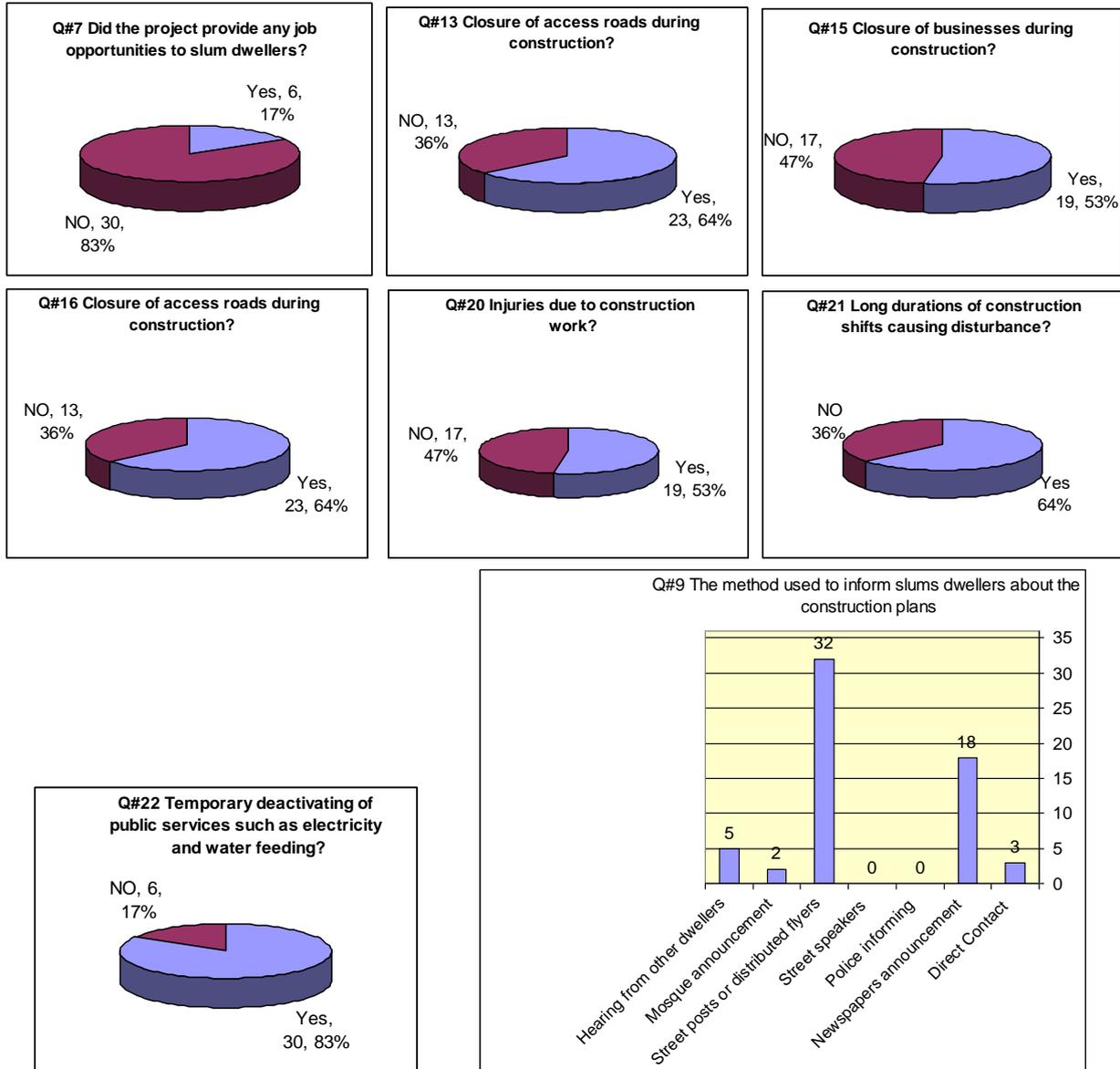


Figure 5. Questionnaire responses distribution for sample questions

5.2 Tables

Tables from 1 to 5 are a sample answers of the questionnaire from which many findings can be extracted. For example, Table 4 shows that the majority of the interviewees of 78% live in reinforced concrete houses which reflects the value of the houses. This is very useful for the decision of the slum upgrading intervention. Another example in table 5 which indicates that all interviewed dwellers did not share in the developer company investment program. It should be noted that the slum developer company offers dwellers with the following:[11]

- 1-Property owners in the development area are given the choice to contribute to the development project, in accordance with the present Regulations’ terms, and share the benefits and profits of the slum upgrading project.
- 2- Group of owners establish their own development program based on partnership, agreements with real estate developers, and bank loans.
- 3- The owners gets a monetary compensation and are permanently evacuated from there housing.
- 4- Relocating evacuated dwellers in alternative housing. [12]

TABLE 1. Results of Question # 4

Type of the dweller's House		
Answer	Number	%
▪ Reinforced concrete	28	78
▪ Steel	0	0
▪ Sheet Metals	0	0
▪ Popular (wood and bricks)	8	22
Total	36	100

TABLE 2. Results of Question # 5

Can dwellers give a brief description of present services available in your slum area?		
Facility	Number	%
▪ police station	14	39
▪ clinic	19	53
▪ schools	28	78
▪ mosques	33	92
▪ security lighting	11	31
▪ water	27	75
▪ storm drainage	2	6
▪ waste collection	28	78
▪ electricity	28	78
▪ other governmental organizations	0	0

TABLE 3. Results of Question # 8

Are dwellers informed with any future upgrading/replacement projects in dwellers area?		
Answer	Number	%
Yes	4	11
NO	32	89
Total	36	100

TABLE 4. Results of Question # 10

What type of information is conveyed to dwellers?		
Answer	Number	%
▪ Project description	29	81
▪ Project objectives	21	58
▪ Project duration	2	6
▪ Impact on their living level	2	6
▪ Provide alternative accommodation	15	42

TABLE 5. Results of Question # 17

According to the municipality offer, what did dweller most likely select?		
Answer	Number	%
▪ Temporarily movement and sharing in the declared company	0	0
▪ Permanent movement and house sale	36	100
▪ Investment of the property as shares in the stock market	0	0
Total	36	100

5. EFFORTS EXERTED BY THE GOVERNMENTAL ORGANIZATIONS FOR SLUMS UPGRADING

According to the interviewed slum dwellers, the government represented in both Jeddah and Makkah municipalities, provided the dwellers with many incentives to persuade them either to sale their houses and move permanently or to share in the declared investment program with the houses values. However, Table 5 indicates that no one from the surveyed persons accepted the second option. The interviewed dwellers stated some of the government incentives introduced to them in both Makkah and Jeddah as follows:

- The municipalities helped evacuated dwellers to quickly get the construction license for new buildings in new areas outside the old slums.
- With the help of charity organizations, the government financially helped families without a breadwinner and also widows and orphans. In fact according to the municipalities, about 5% of the slum upgrading project budget is assigned to social and economical assistance to dwellers [11].
- Some developers had their own initiatives to acquire dwellers confidence such as Al-Harbi organization in AL-Khashlah in Makkah that built a new playground to serve the dwellers as a sort of entertainment.
- In some special cases the developers helped tenants with an adequate amount of money to support seeking new houses although they were not entitled for compensation according to regulations.
- Trying to hire some dwellers in guarding and security jobs, first to acquire dwellers confidence and second to help them financially.
- For non-Saudi dwellers, the municipalities help to legalize their residency.

6. THE QUESTIONNAIRE CONCLUSIONS AND FINDINGS

The survey interviews scoped on socio-economic challenges faced by slum dwellers during the upgrading projects. Figure 5 and Tables from 1 to 5 show responses distribution for key questions of the questionnaire. Questions# 25 and 26 asked the slum dwellers about the most important things they want to be changed in their communities. The interviewed persons contributed much with their opinions toward the needed community changes. Most of dwellers were convinced that slums do not provide the minimum requirements for a good life style due the lack of services such as clinics, schools, paving, water feeding, sewage and other necessary infrastructures. However, they belong to the place in which they were born and raised up. The relation with the slum area is not a matter of the availability of facilities, but also psychological links are created with the place.

According to the questionnaire answers and the prolonged interviews discussions with the interviewed persons, the following key findings can be concluded from the dwellers point of view:

- The demand for housing in the neighborhood to minimize the negative impact of deserting the place in which they were born and raised.
- Increasing the number of mosques to keep pace with the growing population in slum areas.
- Include slum dwellers in the social insurance programs sponsored by the government and help residents to complete their tenure documents.
- The immediate removal of garbage and demolition debris.
- Paying more attention to the pavement of streets to reduce the traffic problems and remove streets pits and bumps specially in the narrow crowded inner slum streets.

- For upgrading projects, all dwellers asked for the widening of slum streets.
- Helping the dwellers to find new legal jobs and correct the situation of non-Saudi dwellers to have legal sponsorship according to the Saudi laws.
- Strengthen the security system by increasing the police presence in slum areas.
- Establishing of low cost clinics which suit the dwellers income.
- Increasing the awareness of dwellers to the importance of the upgrading projects and their positive impacts on their daily life.
- Increase the power of pure water network to reach all slum points.
- Fixing the cracked buildings and the lack of services such as water, sanitary and electricity.
- Install lampposts for the lighting of all inner narrow slums streets.
- Speed up The delivery of the compensation for replacement projects with enough time before evacuation so that dwellers can seek and find alternative houses. Another solution is to replace the current compensation system to be an alternative house for each family instead of monetary compensation.
- Changing the philosophy of slum problems solving to the attitude of upgrading not replacement. Thus reducing cost and in the same time keeping the social structure of the areas.
- Provide walking curbs at least for main streets.
- The construction for new parks, playgrounds, sporting clubs and other means of entertainments.
- The commitment of the contractors to spray water during the demolition process to reduce the bad impact of dust on dwellers. Figure 6 displays the application of this process in Al-Ruwase slum project in Jeddah.
- Utilization of unused lands surrounding the cities and establishing of new communities where lands are provided with reasonable prices.
- Consider the property document “Sak” as legal as the property document “Wasekah”. This will help a large sector of dwellers, especially non-Saudi, to adjust their situation and find the suitable alternative housing. Besides, this will speed up the evacuation process since a considerable number of dwellers have only “Wasekah” document. It should be noted that “Wasekah” document is the possessing of a building without is land, while “Sak” is the possessing of both the building and the land.
- Some houses were found to be registered under names of others than the current inhabitants. The original registered people are not accessible and often have left their properties for decades. They may have died or can not be reached by the municipalities for properties compensations. Thus the demolition of these houses stops causing major problems affecting the process of upgrading and replacement as a whole. The government must establish the necessary laws to legalize the status of the residents of these houses.
- Using the necessary precautions to mitigate the negative impact of the dust coming out during the demolition process. Figure 6 shows the use of water sprinkling to reduce dust negative effect.

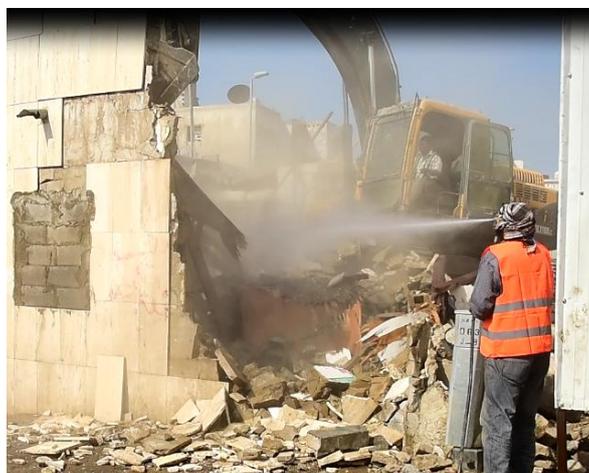


Figure 6. Water sprinkling in the demolition operation to reduce dust clouds effects [13]

7. RECOMMENDATIONS TO MITIGATE NEGATIVE IMPACTS

Based on the questionnaire responses, field inspections and data analysis, the following recommendations are extracted to mitigate the negative impacts of slums upgrading projects:-

- The need for economic development and jobs creation in villages and rural areas in the border belt of the two cities to curb immigration to the city and the growth of slums.
- Giving more consideration to increase the awareness of dwellers to the significance of the upgrading and replacement projects to the current and next generations. This will help in avoiding the problems of slum dwellers evacuation in slums projects.
- Encouraging of investors from the private sector to build a replacement housing for evacuated slum dwellers. The municipalities of Jeddah and Makkah should present the investment opportunities in slum projects to banks and business owners to get the possibility of financing such long term investment and considerably costly projects.
- Providing suitable lands for housing for low-income category of citizens through the help of the housing cooperative societies and activating the role of the municipal control to reduce the growth of unplanned settlements [14].
- Improve all residential facilities and service conditions. It includes the improvement of infrastructure facilities such as electricity, water feeding, sanitary network. Also, giving more considerations for other necessary services such as clinics, schools, sporting clubs and playing yards.
- Develop long-term policies aimed at curbing haphazard construction in slum areas and minimizing the continued deterioration in the old areas through the provision of basic ingredients for housing rehabilitation at subsidized prices. This step must be associated with the appropriate planning and legislation regulations from the authorities side as well as the popular public awareness.
- Encourage dwellers to invest in the upgrading project through the municipality offer instead of receiving monetary compensation and permanently move outside their slum. Table 5 shows that no one of the interviewed dwellers selected this option. The investment option of dwellers will increase the share of the private sector in the finance of slum upgrading and replacement projects and thus government authorities can direct the assigned resources to improve the slum areas conditions.
- Increase the speed of properties pricing assessment and payment of compensation to make dwellers evacuate on schedule and move forward with upgrading projects without changing the plans and avoid delay costs.
- Consider the social conditions of dwellers at the time of properties compensation assessment. Each case should be considered individually especially for orphans and widowed families. However, social studies must be performed accurately to picture the actual conditions of slums families.

8. LIMITATIONS OF THE STUDY

The sample of the interviewed slum dwellers did not cover all slums located in the scope area. This is attributed to the fact that most slums upgrading and replacement projects are still in the planning stage. Few slums projects, which were explored, have only started. For King Abdulaziz Street Project, it was still in the demolition of properties phase and the remaining stages of the replacement project are scheduled for the coming five years.

9. CONCLUSION

The study focused on the social and economic impacts of slum upgrading and replacement projects on dwellers. A series of 36 family head dwellers were interviewed and asked a set of 26 related questions. The survey included also prolonged discussion with dwellers about the negative impacts that they face as a result of the slum upgrading projects.

The study evidenced the essential need to change the property assessment philosophy to be fair enough compared to the current market high prices of lands and construction cost. Also, the government should encourage both dwellers and financial organizations to share in the investment of slum upgrading projects.

Slum upgrading projects should not focus only on the creation of new streets, but improving the conditions of the services such as pure water, streets paving, sanitary and electricity, as well. Upgrading projects should also provide public services such as low cost clinics, schools, commercial shops, and playgrounds.

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APPENDIX A
The Questionnaire components

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Questionnaire

Slums upgrading and replacement evaluation in Jeddah and Makkah
The purpose of this study is to document and emphasize obstacles and both social and economic impacts on the Slum dwellers due to upgrading and replacement projects. All information mentioned in this questionnaire will be strictly confidential. The study focuses on slums upgrading in both Jeddah and Makkah (KSA).

**IMPACT OF THE PROJECT DECLARATION ON SLUM'S DWELLERS
(RESIDENTS)**

a) General Information

1- Dweller individual Information:

- Marital Status: Single Married
If Married, number of wives: , number of kids:
Number of family members in the household:
- Nationality:
- Detailed Job information:
 - position:
 - Address: :
 - Accessibility of job: Less than 30 Minutes More than 30 Minutes
 - Monthly Income (S.R.)
 Below 1000 above 1000 – 2000 above 2000 – 3000
 above 3000 - 4000 above 4000 – 5000 above 5000
 - Other funding resources (amount):

2- Slum and household Information:

- Slum Area Name:
- Slum Detailed Location:
- Duration of slum house holding: (years)
- Where did dwellers live before? (if a dweller has moved recently)
.
- Type of occupation: Flat Individual building
 - Amount of floor area of house hold in [m²]:
 - Number of floors in house hold: 1 2 3 4 More than 5
 - Number of rooms in house hold: 1 2 3 More than 3
 - Number of bathrooms in the house hold: 1 2 3 Common
- 3- Type of tenure: own Rent
If own, do dwellers have any property documents? Yes No
If rent, how much do dwellers pay per month (S.R.)?
 Less than 1000 above 1000 – 2000 above 2000
- 4- Type of building Reinforced concrete Steel sheet metals
 Popular (wood and bricks) others

b) Facilities and availability of upgrading/replacement projects

- 5- Can dwellers give a brief description of present facilities available in your slum area:
 police station clinic schools mosques
 security lighting water waste collection storm drainage
 electricity other governmental organizations
- 6- State any Presence of past upgrading projects and their natures if any:
 Infrastructure Pavement Electricity Water works
 Sanitary works Other activities, mention if any
- 7- Did the project provide any job opportunities to slum dwellers?
 Yes No

If your answer is "Yes", explain how?

- 8- Are dwellers informed with any future upgrading/replacement projects in dwellers area?
 Yes No

If Yes, state the nature of the project as informed:

- Infrastructure Pavement Electricity Water works
 Sanitary works Other activities, mention if any

- 9- The method used to inform slum dwellers about the construction plans

- Direct Contact Newspapers announcement
 Police informing Street posts or distributed flyers
 Street speakers Mosque announcement

- 10- What type of information is conveyed to dwellers?

- Project Objectives Project description
 Project duration Impact on their living level
 Availability of alternative residence during the project stages

c) Economical Impact of the project declaration on slum's dwellers

- 11- Did the project bring additional business to an existing in the slum region?

- Yes No

If your answer is "Yes", explain how?

- 12- Did the project result in helping dwellers be more involved with planning for their neighborhood?
 Yes No

If your answer is "Yes", explain how?

- 13- When are they involved?

- Before the Project starts
 At the Project start
 Start the project without informing the slum residents

- 14- Are they involved in any phase of planning/construction?

(including hiring some dwellers, and in which positions; security, labor, technician, cleaning and waste mitigation.....ect)

- 15- Closure of businesses during construction? Yes No

If your answer is "Yes", explain how?

- 16- Closure of access roads during construction? Yes No

If your answer is "Yes", explain how?

- 17- According to Makkah municipality offer, what did dwellers select?

- Temporarily movement with and sharing in the declared company
 Permanent movement and house sale
 investment of the property as shares in the stock market

- 18- Your opinion about the compensation amount

- Satisfied Fair not fair others

d) Social Challenges to Dwellers

- 19- Temporary relocation of families during construction if necessary?

- Yes No

If your answer is "Yes", explain how?

- 20- Injuries due to construction work? Yes No

If your answer is "Yes", explain how?

- 21- Long durations of construction shifts causing disturbance? Yes No

If your answer is "Yes", explain how?

- 22- Temporary deactivating of public facilities such as electricity and water feeding?

- Yes No

If your answer is "Yes", explain how?

- 23- Permanent displacement of families to new locations if necessary? Yes No

If your answer is "Yes", explain how?

- 24- What did the government introduce to treat the above challenges?

- 25- The most important things dwellers want to be changed in your community?

- 26- Other dwellers challenges?