

A Review on Housing Affordability and Housing Policy Application in Neglected Border Cities in Jordan

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Abstract: The main task of this paper is to examine housing affordability and housing policy application in neglected border cities in Jordan. After the Iraq war in 2003 and Syria civil war in 2011 many border cities accommodated a large number of refugees in its urban context over different periods of time. The lack of affordable housing and increase of unemployment were the main challenges for its vulnerable communities. Border cities are facing different development challenges but applying the same housing policy as metropolises. The paper studies economic attributes and social characteristics of Mafraq city to analyze housing obstacles. It concludes that houses are unaffordable in these border cities and housing policies need modifications. The paper recommended that housing affordability in border cities must include community participation and sufficient financial aid to low income families. In order to maintain houses affordable in border cities, the real estate market, community participation, urban planning and promotion for tourism are all essential.

Key words: Affordable housing, Mafraq city, housing plan, housing development.

1. Introduction

1.1 Housing Policy in Jordan

Along with the rapid urbanization of Jordan, as Amman, Zarqa, Irbid and other main cities having shown irregularity in the real estate market and a tremendous backlog of housing after 2006, according to *Jordan Statistical Year Book 2017*, housing prices had increased 43.9% all over the country from 2006 to 2015. The long term accumulated social intension expanded, so that affordable housing has been bestowed political, economic and social significance and became one of the most appealing topics in academics, economy and society in 2015.¹

Alnsour [1] has presented an overview of housing programs commenced by Jordanian government and revealed contradictions in its housing policy and implementation. The primal affordable housing was low income housing, with the target group as low

income families, dating back to 1965 and initially implemented in major cities utilizing two strategies: provision on constructed dwellings and providing loans for individuals and co-operatives [2]. The current housing policy of Jordan had undergone changes after 1989 national housing strategy and 1996 government restructure of housing sector which aimed to provide affordable housing for all income groups, this included covering small to medium sized cities in addition to big cities [3]. The concept of affordability is fairly new in Jordan. By 1985 it became a common term in government housing policy [4]. Despite its recognition the definition still describes the relation between household income and expenditure, and the level at which housing is considered unaffordable [5]. It is the most common way to define and express housing affordability in the world [6]. Nonetheless, housing affordability measures should focus more on the location, neighborhood characteristics and conditions of housing, not only the cost [1, 5, 7, 8]. The construction of affordable housing in Jordan has increased from 1975 to 1985 due to the general

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economic expansion in the oil producing gulf countries of Jordan's expatriates working there, and grants given to support Jordan as a front-line state, in the Arab-Israeli wars [4]. Since 1985 investment in affordable housing and housing sector has subsided ascribed to two main reasons:

(1) Economic crisis 1988-1991: following the global economic crisis the Jordanian dinar exchange rate collapsed and the gross domestic product (GDP) growth declined to negative 2% reducing investment sector by 22.7% [9].

(2) Immigration and refugee influx from wars in the region 1990-2018: this included the Gulf War 1990, Iraq War 2003, Syrian War 2011 until now, and resulted in higher inflation and unemployment rates shifting the government policy from affordable housing to refugee camps and services sector [10]. Subsequently, new affordable housing strategies and projects were adopted such as maintaining older housing (a program for funding previous governmental affordable housing projects), government subsidized housing, urban fringe development, affordable housing mandate (inclusionary zoning), reducing infill development, low-equity cooperatives and mutual housing associations [1, 11]. These strategies for housing development are mainly implemented by the sole government housing agency, known as the housing and urban development corporation (HUDC) established in 1992 to solve housing problems and serve low income and moderate income families especially employees in the public sector [11]. Some scholars utilized methodologies of economics, management and sociology, particularly the mathematical models in housing income, prices and affordability in a number of big cities such as Amman, Salt [1, 12].

1.2 Abandoned Cities on Border Region

Regardless of affordable housing and housing insufficiency on different levels in Jordan, many cities

on border region demonstrated lower resilience than big cities such as Amman, Salt [1, 12], especially on the north and south borders, due to enormous refugee influx during Syrian crisis 2011 on different periods of time [10].

This research focuses on affordable housing and housing policy in one of these cities. Current studies focus on general affordable housing and housing policy in Jordan, including affordable housing in the capital Amman, Salt, Irbid, and Zarqa. These cities have higher population density and are considered more developed than cities on border region.

1.3 Research Objectives and Structure

Considering all the differences in urban scale, economic budget and development, this research examines the application of housing policy outlined for high density and developed cities to those lower developed ones and argues its defects. It also analyzes housing affordability and rental market for low income people and provides useful information for future housing policy making. The basic materials are government public statistics such as the population and housing census 2015 and statistical year books including field surveys acquired by researcher.

This paper is organized as follows: Section 2 states facts about the case city and reasons for choosing it; Section 3 presents housing condition, social and economic progress; Section 4 studies housing policy application in the case city; Section 5 discusses improving housing policy for cities in border region. Section 6 considers how to keep houses affordable. Main research methods are field research in addition to data and policy analysis.

2. Mafraq City

Mafraq city is the administrative center in Mafraq governorate located in north-east Jordan, as shown in Fig. 1². The municipality is composed of six major

² Fig. 1: Jordan administrative divisions map provided by Royal Jordanian Geographic Centre (RJGC) 2018.

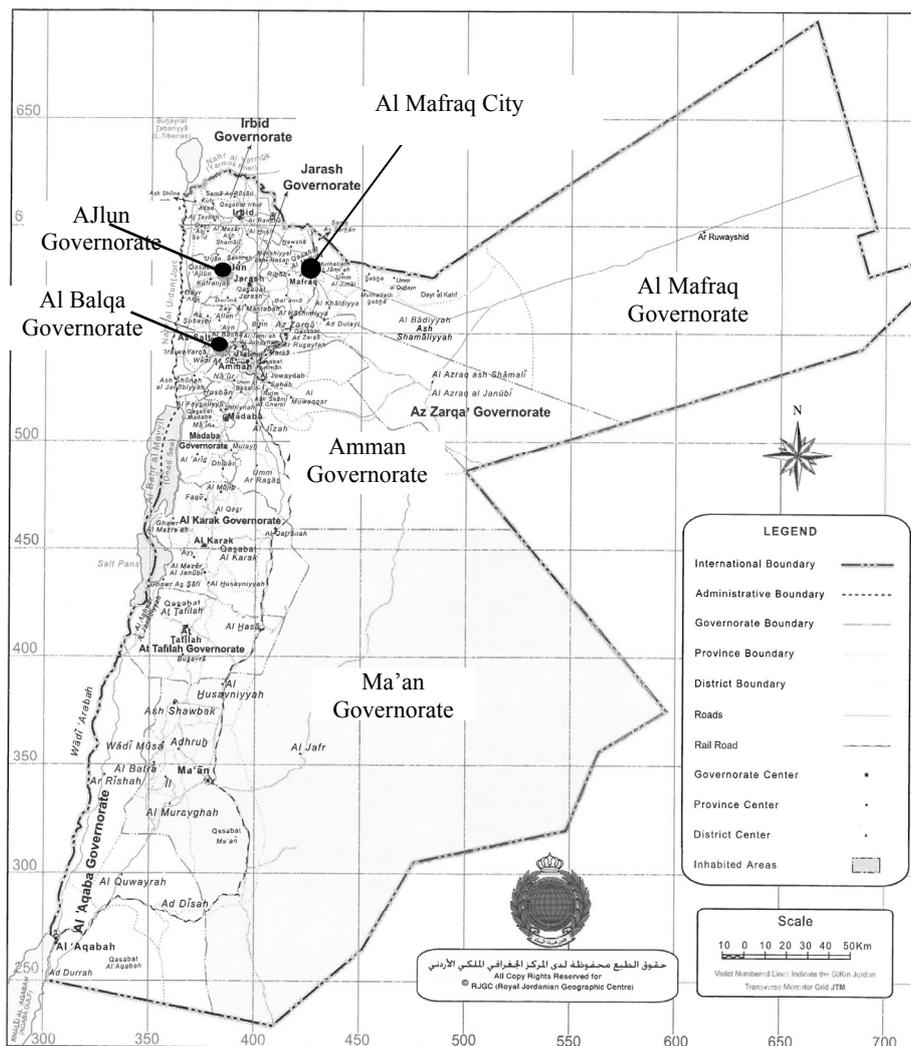


Fig. 1 Jordan map showing the location of Ma'raq governorate and Ma'raq city.
Source: Royal Jordanian Geographic Centre (RJGC), 2018.

districts: Ma'raq, Idunn Beni Hassan, Eastern Um Al-Naam, Eastern Alboaidah, Thugrate al Jub, and Hayyan Al Misharef. The total area of Ma'raq and its districts recently reached 100 km². The area of Ma'raq city is 26 km², of which only 11 km² are organized [13]. The population of Ma'raq governorate is 580,000 and nearly 40% of this population lives in Ma'raq city [3].

2.1 A Historical Trading Junction and Commercial City

Ma'raq city is rich in its history and archaeological findings. Scientists have found human skulls dating

back to ancient history. The city also has many pottery relics that belonged to the Neolithic period (8000-4000 B.C.), which confirmed historical human settlement there [14]. The city had a high level of civilization with more than 2,000 years history due to its unique location and environment in ancient times. Nonetheless, the city became less important after the collapse of Ottoman Empire (1918-1920) caused by many wars in the region and the destruction of Hijaz railway that connected Damascus with Mecca and had one of its important stations in Ma'raq.

Agriculture was the main industry in Ma'raq governorate. It fulfilled most of the needs of Jordan

from summer vegetables and fruits, in addition to livestock, exporting various types of agricultural goods to different countries. In 2002 the establishment of Mafraq greater municipality initiated a shift in the city agricultural profile to a commercial and industrial one by building various factories with heavy and light industries in southern and southeastern parts of the city. This was proceeded with the establishment of King Hussein economic region in the north east part of the city taking in consideration its important location for exporting and importing goods from Syria and Iraq. Therefore, commercial and industrial enterprises have increased representing 80% of the economic activity in the city. Although people expected economic growth in the near future, urbanization levels were slightly increased. Could Mafraq city benefit from this change of policy? The answer is yes, but wars in Iraq and Syria had negative impacts on its outcomes. The commercial activity, labor market and housing sector were severely affected mainly after receiving more than 600,000 Syrian refugees in Al-Za'atari Camp located only 10 kilometers east of the city.

Many Syrian refugees integrated in the local urban context adding more pressure on Labor and housing sectors. This had many negative effects on housing affordability and employment, increasing vulnerability in Mafraq city as a host community.

2.2 Why Mafraq City Is Chosen?

The case city was chosen for the following reasons: (1) it is one of the most important border cities connecting Jordan with Syria and Iraq. (2) Mafraq city is in the early stages of urbanization with medium population and area and this is common with many other border cities which are different from major cities in Jordan. (3) The case city has the highest refugee to local people ratio with nearly 30% of its population as Syrian refugees. (4) It is the nearest city to Al-Za'atari the largest Syrian refugee camp in Jordan. (5) The discussion of this paper focuses on the municipal

district of this city. It is the most urbanized area. Thus, if housing policy is unfitting for it, it is definitely inappropriate for other administrative divisions.

3. Housing State and Social Progress Level in Mafraq City

3.1 Economical Attributes: Commercial, Industrial Composition and Present Issues

The detailed statistics about economic and social prospects of the city are unavailable. The researcher extrapolated its general condition from the data of the governorate. Poverty rate in Mafraq governorate is 19.2%. This exceeds the national poverty rate at 14.4%. It has high unemployment rate at 19.7% and a high inflation rate that is nearly twice the national inflation rate of 4.77%. The city has a relatively medium level of urbanization. According to The Department of Statistics, the average urbanization of Jordan is 84.13%, while Mafraq city has a lower number, 73%. The city has experienced relatively fast urbanization, especially after the Syrian refugee influx in its urban context in 2011 (Fig. 2). The city is the commercial and industrial center of the governorate. Furthermore, the city economic structure is mainly commercial. Since most of the governorate population works in Mafraq city, the housing demand in urban area increased significantly. There are three major issues facing the development of commerce and industry in the case city: First, Mafraq city imports and exports goods to bordering countries. This was reduced by 50% due to wars in Syria and Iraq. Second, the large amount of refugees in the city had a profound impact on services, housing and investment sectors. This increased unemployment rate and decreased local workers' salaries. Third, the current industries are still underdeveloped compared to other cities including metal, leather and textile, food, construction and architectural industries.

That is why most of the skilled workers prefer higher paid jobs in big cities. The city is facing difficulties in investment and urbanization especially in its center.

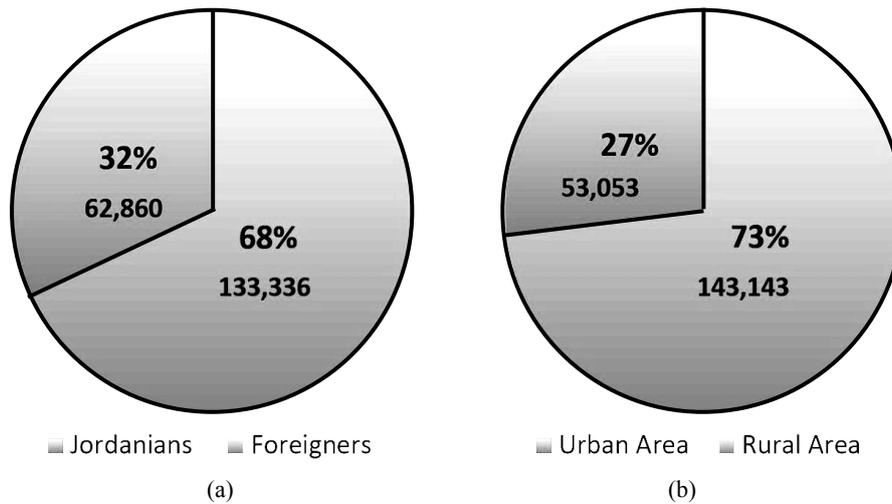


Fig. 2 Population in Mafraq city: (a) Jordanian and foreigners; (b) urban and rural areas.

Source: department of statistics 2015 census.

3.2 Social Characteristics: Education and Public Service

According to the department of statistics in 2015, the city’s population attending higher education was only 15% of the national average. Nearly 50% of the city population attended secondary education, finishing 9 years of compulsory education. This is lower than big cities like Amman and Irbid. The city has a high illiteracy rate of 13.3% which is nearly twice the national rate. Higher education resources of Mafraq city could be concluded in Al Al-Bayt University, a national university established in the eastern part of the city in 1994. The university contributes to the social development of the city by attracting scholars, students and university employees to live in the city. The higher education status in the whole governorate is not promising, due to having only one national university that lacks funding for research compared to other national universities in big cities. Furthermore, if the students can get a high score in Tawjihi (the general secondary education certificate examination in Jordan), they would prefer to choose a better university than the local one. This makes the development of the city more difficult. After examining the city public services the researcher

found that the city has a good performance compared to other cities in the governorate. The most inconvenient aspects in public services are the number of community service facilities, cultural centers, sports and entertainment institutional units, tourism service facilities.

3.3 Housing Condition in the Case City

Mafraq governorate center is the traditional current case city center which was built around the historical ottoman train station. The station is surrounded by government offices and residential and commercial buildings. The land for residential areas is insufficient from the city land use plan (Fig. 3). Almost 35% of the buildup area is for agriculture. Furthermore, the city residential area is encapsulated by military, agriculture and educational areas. This prevented any expansion in the residential areas especially in the eastern part of the city. The city residential market was affected by the Syrian refugee influx increasing demand on housing and raising the prices of apartments and rents. The average amount spent on rent went from 50 JOD before 2011 to 100-210 JOD per month after 2012; this represented an increase between 100-400%. Housing prices were affected too, especially in the center of the city increasing from

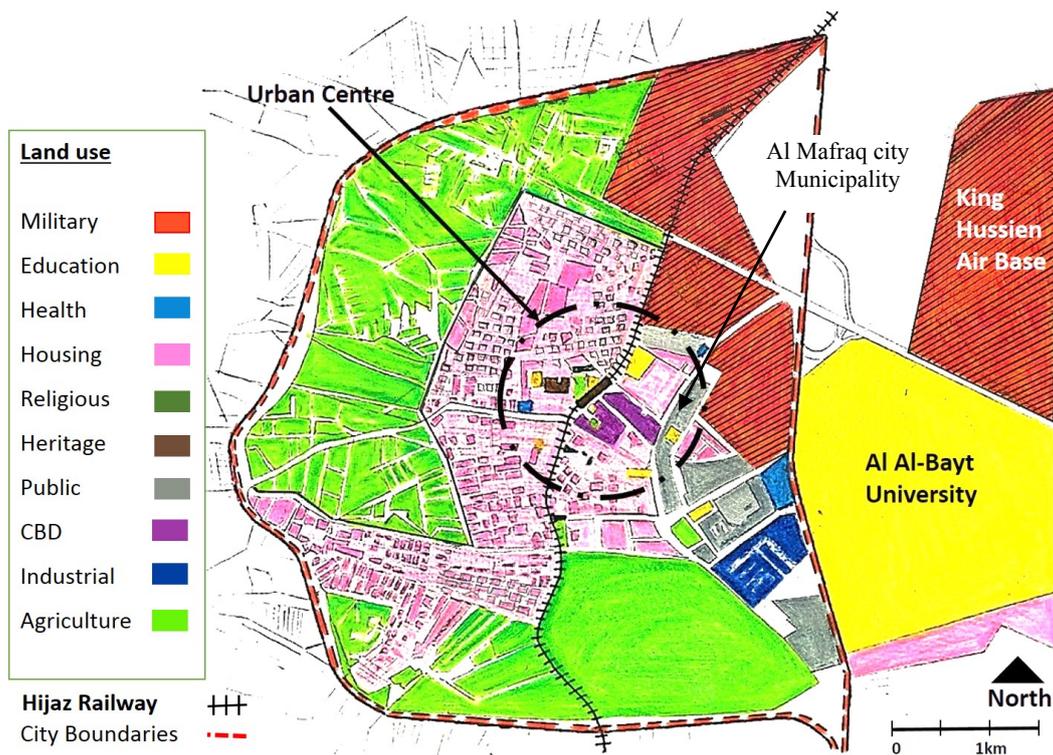


Fig. 3 Mafraq city land use plan.

Source: author.

100-210 JOD/m² to 200-500 JOD/m². Although housing prices drastically increased in Mafraq city, it is still much lower than average housing prices in the capital Amman, 1,200-1,400 JOD/m². Housing prices vary depending on the location. Houses in the center of the city are much more expensive than other areas due to higher land cost. The real estate market in Mafraq city is expanding drastically in recent years, especially in single housing units. The majority of residents in the city prefer this type of housing over apartment housing since most of them come from traditional conservative Arabian culture that encourages the concept of a big separated family house. The housing and urban development corporation took this into consideration and provided land especially on the urban fringe of the city for low and medium income housing. This was one of the reasons that shifted the government approach from constructing affordable housing projects to providing land and services.

3.4 Housing Affordability in Mafraq City: An Understudied Housing Market with High Demand on Housing

To study housing affordability in Mafraq city, a discussion should be made about the term definition. Many researchers such as Lux [6], Stone [8] and Kutty [5], had thoroughly explained the multiple definitions of housing affordability. This research will use the ratio of housing cost to income indicator. It is one of the most common used indicators to define and address housing affordability in research. The statistical year book of the governorate has surveyed the average housing expenditures from year 2002-2013. Housing expenditures include the house cost, water, electricity, fuel, furniture, home appliances, house utensils, and cleaning materials. In fact, the cost of the house is around 60% of the total housing and related expenditures. The researcher decided to use housing and related expenditures as the housing cost, because of the immense impact of high electricity, water and

fuel, etc. prices on housing affordability in Jordan. This will introduce a more realistic approach in determining housing affordability in Mafraq city. The ratio of housing and related expenditures cost to average disposable income is shown in Table 1 at an average of 24%. This is an acceptable ratio compared to ratios in major cities. We tried to examine affordability index in the low income households but detailed information about housing expenditure of different income groups was not available. The research concludes that housing in Mafraq city and most of the governorate is affordable, referring to the American and Australian standard ratio at 30%.

4. Housing Policy Application in Mafraq City

The general housing policy in Jordan is implemented and developed through the HUDC. It includes five main strategies: government subsidized housing, urban fringe development, affordable housing mandates (inclusionary zoning), reducing infill development, low-equity cooperatives and mutual housing associations. Most of these strategies were implemented all over the country with emphasis on major cities. 2008 was the starting point for major affordable housing projects in most Jordanian cities.

One of the main reasons for this is the royal housing initiative launched by king Abdullah II (decent housing for decent living). This initiative aimed to enable 100,000 citizens to access housing within a five-year period. According to HUDC this initiative was implemented through three tracks: (1) building units in main governorates—Amman, Zarqa, Irbid, Madaba and Aqaba, 8,848 units completed. (2) Free serviced plots in addition to 5,000 JOD grant,

3,400 plots were produced until 2010. (3) Subsidized loans, 4,400 benefactors until 2010 (Fig. 4). Although the royal housing initiative provided affordable housing projects in main cities, it did not provide any projects for Mafraq city except free serviced plots. This indicated that the housing policy in the case city can not be described as successful, as in most border cities.

4.1 The Housing and Urban Development Corporation Projects in Mafraq City

The HUDC has two types of projects to reduce affordable housing needs in Mafraq city (Table 2). As mentioned in Section 1, low income housing was the first type of affordable housing in Jordan and has been under heavy critic with many challenges and issues in its implementation. Furthermore, the construction of low income housing had been halted in Mafraq city since 2013. Serviced plots with relatively low prices can help low income families. This was the main government approach after studying the issues and problems in building low income housing units. One of the main issues that emphasized utilizing the serviced plots type was the cultural and social aspects of the people in the city. The majority of the population prefers single housing units over apartments due to conservative Arabian culture and large family size 5.9 persons on average.

Although many serviced plots were sold in the past few years, housing affordability remains one of the main challenges for low income families in Mafraq city.

4.2 Remote Location and Lack of Maintenance

Mafraq housing (1) is the only affordable housing

Table 1 The ratio of housing and related expenditures to income in Mafraq city from 2002-2013.

Per capita (JOD)	Year				
	2002-2003	2006	2008	2010	2013
Average disposable income	4,434	5,321	6,731	7,276	7,750
Total consumption expenditure	4,479	5,767	6,572	7,675	8,516
Housing and related expenditures	1,081	1,503	1,486	1,674	1,769
Residence/disposable income	24%	28%	22%	23%	23%



Fig. 4 Photos of the royal housing initiative affordable housing projects and a typical affordable housing project plan.

Source: housing and urban development corporation.

Table 2 Housing and urban development projects in Mafraq city.

No.	Project name	Project type	Project area (m ²)	Number of housing units	Construction date	Construction cost JOD
1	Al Mafraq housing (1)	Low income housing	236,300	104	1984	1,040,000
2	Al Mafraq housing (2)	Serviced plots	8,900	181	1997	266,000
3	Eidon (1)	Serviced plots	15,000	270	2007	417,179
4	Eidon (2)	Serviced plots	14,800	250	2009	393,333

project in Mafraq city built by HUDC in 1984; the project is located near the center of the city as shown in Fig. 5. All of the apartments are occupied but residents always complain on public media and the news about maintenance problems in the project especially water supply and sewage and drainage systems. There is no mechanism for maintaining affordable housing projects after construction in all the HUDC projects in Jordan. Although this housing project is located near the city center, it is not enough to cover affordable housing needs in the city. The service plots of Mafraq housing (2) project are the only plots provided for low income families by

HUDC near the city centre, most of the serviced plots are located far from the urban center as shown in Fig. 6. The far location of the plots affected low income families due to the necessity to use public transportation or buy a car. Furthermore, the government affordable housing policy and solutions were ineffective in solving housing affordability issues in Mafraq city.

4.3 Public Participation and Syrian Refugees

The decision making process for affordable housing projects in Mafraq city is entirely made by the government and the municipality. There is no public

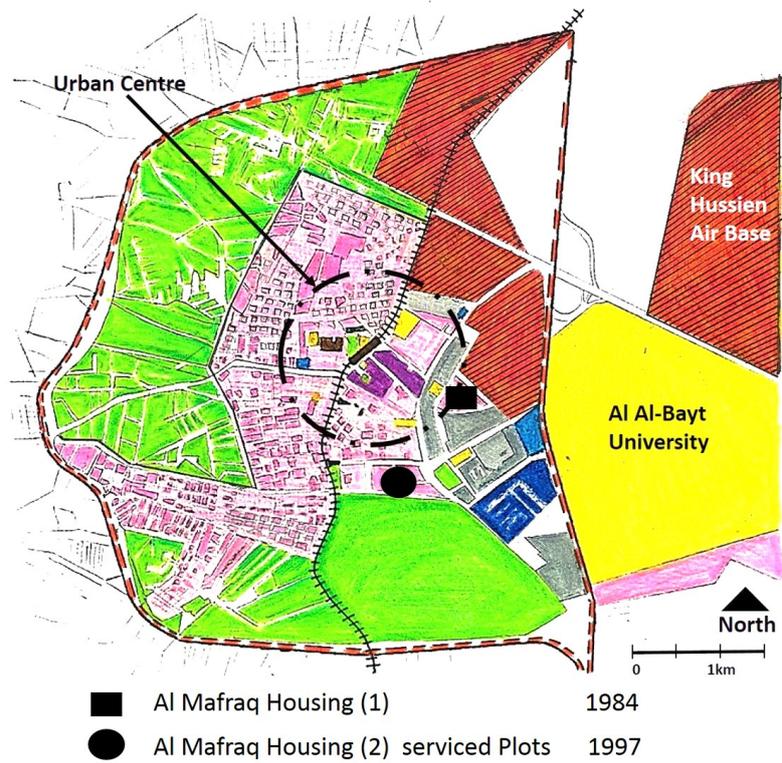


Fig. 5 Affordable housing projects by HUDC in Mafraq city.

Source: author.



Fig. 6 Locations of HUDC serviced plots projects in Mafraq city rural areas.

Source: author.

participation in deciding housing needs and locations in the case city. From the government to the municipality, affordable housing projects are decided based on political initiatives rather than market needs and public participation. Low income families' participation was neglected especially in Mafraq city. Another turning point in housing affordability in the case city was the Syrian refugee crisis. Most of the refugees were integrated in the city's urban context, competing with local people on housing and labor. In addition, Syrian refugees were given financial aid from the United Nations High Commissioner for Refugees (UNHCR) including their paid salaries working in the city. This increased refugee's ability to rent housing units more than the local people which created community tensions and increased houses rents from 100-400%. The government efforts more focused on accommodating large numbers of refugees and building camps than on building affordable housing projects for the affected local community in Mafraq city.

5. Conclusions and Recommendations

5.1 Houses Are Unaffordable for Low Income People in Mafraq City

The main conclusion is that housing provided for low income families is in reality unaffordable and insufficient. It can be concluded that the inability of low income people to afford housing is closely related to the Syrian refugee crisis and government policies shift from building low income housing to constructing and maintaining refugee camps near Mafraq city. As studied in Section 3, the ratio of housing and related expenditures cost to average disposable income is 24% which is an acceptable ratio for housing affordability compared to big cities but detailed information about housing expenditure of different income groups was not available so this may not apply to low income people. Furthermore, the government provided low income families with only

one affordable housing project in 1984 and a few serviced plots far from the city center with no adequate financial aid for housing unit construction or transportation. Another reason, also a very important one is the high increase of housing rents in the case city from 100-400% due to Syrian refugee influx in the city.

5.2 Current Housing Policy Needs Modifications and Community Participation

The housing policy in Jordan should consider border cities and their communities' needs. Border cities are the most venerable host communities in the country due to massive refugee influxes. Action planning and community participation methods are essential for successful affordable housing policy. Low income communities are always located in the cities peripheral areas which lack proper transportation and public services. In addition, financial aid resources for affordable housing are insufficient for low income families. Housing initiatives should consider proper locations and housing units' initial costs, families' size and areas. Housing policies should include strategies for attracting more investors from the private sector to affordable housing projects.

5.3 Endorsing Single Housing Units Design and Improving Local Construction Companies and Techniques

Affordable housing should address community needs and social and cultural backgrounds. The community in Mafraq city is conservative and the cultural background is Arabian Islamic culture with high emphasis on gender separation in housing. Furthermore, the average family size in the case city is 5.9 which is larger than the average family size in big cities. The majority of families prefer single housing units over apartments due to the foregoing reasons. We recommend endorsing single affordable housing units design with areas between 120-160 m². The

units design should be flexible and expandable so low income families could add rooms to the initial unit in the future. Although single housing unit is appropriate for the community in Mafraq city, the cost of these units and land is considerably high. The cost could be reduced by involving local construction companies in the private sector in the building process and using local building materials with efficient building technology.

6. Ideas for Promoting Housing Affordability in Mafraq City

The housing real estate market in the case city has been tremendously affected by the Syrian refugee crisis and government policy in building refugee camps near the city and integrating refugees in the city's urban context. The government should present an effective strategy for supporting the vulnerable host community in Mafraq city. This strategy should introduce a policy change towards supporting affordable housing projects and partnerships with the private sector. Furthermore, the government should present sufficient financial aids for low income families to start constructing affordable housing units on serviced plots.

Action planning with community participation should be included in the government policy approach to solve affordable housing shortage in Mafraq city. The political initiatives from the government do not incorporate local community needs. Investigations, reports and surveys are crucial in developing a functional housing scheme. The development and promotion for tourism in the city could help promote affordable housing by attracting investors and reducing unemployment. In the case city there are lots of vacant lands in the western part of the city, but affordable housing is located on the peripheral areas of the city. For border cities in general it is time to address their vulnerability as host communities and initiate affordable housing projects and development plans suitable for each city.

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