Living with Quality: Strategies for Transferring Social Housing Development to After-war Syria

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Abstract
Obtaining a home in Syria has been an equivalent to a strategic goal around which the life of the Syrian citizen revolves. Housing was one of the problematic crises before the war, which accelerated due to the war. Moreover, this turned into a humanitarian disaster, and the situation has become more urgent and requires immediate treatment. The solution of this demolition is not limited to an easy rebuilding and needs a more sustainable and qualified policy in order to prevent to turn back to the existing crisis before the war. This paper focuses on finding an appropriate strategy to respond to the housing crisis in Syria in the light of successful implementations of social housing. In order to achieve that, after a literature review of the general context of social housing, the Singapore social housing experience has been analyzed. Considering the housing problems and implementations in Syria (before and after the war) in a comparative evaluation with the Singapore experience, some strategies have been suggested, along with discussing the transfer of this experience to the Syrian context. Although applying a social housing system in a country that has had a failed experiment is not an easy task, the study proposes a list of recommendations for developing a social housing strategy based on a clear legal framework which also provides a base for social housing. In addition to defining all the criteria related to social housing, such as the target groups, the type of housing, the available financing methods, and focusing on urban planning and architecture for the importance of their role in creating a peaceful coexistence in the conflicting societies.
Keywords: Social housing; Affordable housing; Public Housing; Singapore social housing; Syria Housing.

1. Introduction

Architectural destruction and attack on architectural vocabulary is a contemporary style of warfare and a central component of contemporary military strategy. "Architecture in the twentieth century has become, more and more, a weapon in war rather than something that impedes its smooth functioning ...it is targeted for assassination or mass murder." (Bevan,2007, p.210).

The circumstances of war differ from one place to another, but still "there are... similar contextual issues all these places are striving for: solutions for housing shortage which can provide long-term solutions for a liveable and qualified living spaces." (HatipogluKalfaoglu,2020, p.215; Nikoofam, Mobaraki, 2020). The Syrian war represented a direct blow to the housing sector, the "Syrian cities damage atlas" shows that approximately 29% of the existing buildings were damaged during the war. 22% of it is partially damaged and 7% completely destroyed. (REACH & UNITAR, 2019) Besides, construction was stopped during the war in most of the cities that had suffered from the conflict which exacerbated the housing crisis in the country.

The reality of the housing collapse in Syria portends a social catastrophe that threatens the Syrian entity and impacts future generations. The current housing situation requires different approaches than the one was before the war. Therefore, the problem of providing adequate housing in urban areas is one of the biggest challenges facing decision-makers in post-war Syria, in addition to its importance in achieving development and peace. Housing is considered an urgent and vital need to build society and return the displaced inside and outside the country. Until the housing issue is resolved for all segments of society, any attempts to solve the rest of the social problems will remain ineffective and society will continue to suffer.

The Singaporean housing policy experience stands out in a developing country suffering from a lack of resources because of its impressive achievement in meeting both political and social targets at the same time. Singapore's social housing program was introduced in 1960 as a solution to the housing shortage problem, and in subsequent decades it has proven to be a successful solution to the housing crisis in poor and war-stricken countries. By building housing complexes that include different groups of society, where 92% of their residents live in social housing provided by the state today (Deng, Sing, & Ren, 2013). It is an inspiring guide to Syria for a similar innovation. But how was that? How did Singapore transport its citizens from slums to quality housing on a global level? How did the resource-poor nation of Singapore succeed in social housing when others failed? What lessons can be learned from Singapore to achieve a long-term social housing approach to meet urgent housing needs in Syria.

2. Research Objective and Methodology

This paper aims to contribute to the housing development in Syria after war by developing a social housing strategy. In this context, it analyses strong points of Singapore's success in social housing, which demonstrates a great success and question the possibility of importing this experience to the post-war Syrian context as a developing country. Moreover, the research represents a background for Syrian housing by emphasizing following topics: the definition and characteristics of social housing, the approaches for social housing in Singapore after independence in 1960; pre and post war housing situation in Syria, the failure of Syrian experience in social housing.

In order to analyse the social housing as a term and Singaporean and Syrian context, the research first elaborates a theoretical framework for social housing by reviewing literature of theoretical terms related to social housing in general such as the history and main criteria of social housing, in addition to an analyse and review of the Singaporean experience in social housing, which is considered a unique and successful experiment. Then, Analysis of the housing situation and the housing challenges that has been suffered from before and after the war in Syria. This analysis reveals the failure of the Syrian experience in social housing considering the theoretical criteria of social housing and the housing requirements in Syria. Moreover, the comparative evaluation and discussion of both contexts allows to develop a guideline with the transfer of the lessons learned from the Singaporean experience.

3. Conceptual Framework

3.1. Social Housing Concept

Social housing first appeared in the "form of the idea of affordable housing" in western Germany through the "Fuggerei" project (figure 1) in the sixteenth century, which was intended for impoverished workers in Augsburg. Then this concept started to spread in Europe. Since the Industrial Revolution in Europe in 1870, this idea evolved into a residential policy known as Social Housing (Amirjani,2020). The rise of social housing has been influenced by industrialization, the convergence of rural and urban problems, population growth, migration movements, and cultural changes since the Industrial Revolution. Harloe chronicles the history of social housing and its stages of growth is divided into four basic periods: Prior to 1914, social housing took the form of voluntary charitable activity targeting low-income groups. The global paradigm of social housing then predominated in the immediate post-1918 era. The golden age of social housing was in the rebuilding of post-WWII towns from 1945 to the mid-1970s, and it was also used to address slum issues. This model started to decline after the mid-1970s. Harlow concludes that social housing appears only under unusual circumstances (Malpass,2008).

In 2018 a study by Granath Hansson & Lundgren, have found that the term social housing has many meanings and differs from one researcher to another, therefore it is referred to as a " floating signifier" as its definition varies from country to another and between time and place, which led to several definitions for this term. The authors suggest defining social housing as a system or policy that has a specific set of features. "Social housing: x is social housing if and only if x is a system providing long-term housing to a group of households specified only by their limited financial resources, through a distribution system and subsidies" (Granath Hansson & Lundgren,2018, p.151).

The importance of social housing as a basic factor in social welfare policy, provision of affordable housing, and solving some housing problems cannot be different. During the past year, the Covid-19 pandemic shed light on the ability of families with limited or unstable income to bear the costs of housing. This has made many governments, especially in Europe, reconsider building social housing by injecting new investments through what has been called a " renewal wave." to achieve more sustainability. "The COVID-19 pandemic reinforced the critical role of social housing in providing stable, safe and affordable accommodation – and spurred a renewed urgency to address housing vulnerability" (OECD, 2020, p.21).

Figure 1. Fuggerei project in Western Germany Augsburg (Amirjani, 2020)

3.2. The Criteria of Social Housing

Although social housing differs from one country to another, a set of common features have been identified to describe social housing around the world: "target group, the form of tenure, type of provider, public intervention and subsidies'' (Granath Hansson & Lundgren, 2018, p.156) and another criterion that should be included in Architectural and urban design standards and quality (UNITED NATIONS, 2006).

1. Target groups: As we have seen in the definition, there is a basic criterion in social housing, which is for whom do we build? Social housing that serves different groups of stakeholders varies from country to other according to the laws established by the housing policy in the country. At one point it was considered housing for the low-income households only, then it developed to target low-wage or even middle-class working families in other countries or to contain slums. Some countries are still trying to get more target groups into social housing (Malpass, 2008).

2. The form of tenure: Social housing comes with a variety of tenure options, according to Priemus, including: "(1) owner-occupied housing, (2) commercial rental housing, (3) rented social housing and (4) cooperative housing." (Granath Hansson & Lundgren, 2018, p.11).

3. Type of Provider: While it is often assumed that social housing is subsidized by the government, there are various types of social housing suppliers also within the same region. Social housing may be funded by the National government, regional/local government, the voluntary/non-profit sector, cooperatives/local self-government, or even the private sector. (Granath Hansson & Lundgren, 2018 ؛UNITED NATIONS, 2006)

4. Public intervention: As it had been seen, public authorities are not the only ones providing social housing, but they are the primary organizers of this system. Therefore, there must be a general framework linked to the general policy that regulates the status of social housing providers. The state has a responsibility to ensure that this task is implemented. In general, The Public intervention in social housing takes three primary forms: "legislation, public policy communication, subsidies, and the direct supply of social housing through the public bodies or publicly owned companies." (Granath Hansson & Lundgren, 2018, p.13)

5. Subsidies: One of the principles of social housing is to provide housing for -those who cannot afford it on their own, - either by government subsidies or the lowest market price. This indicates the availability of the support component in social housing. It leads to the conclusion that social housing is not a self-sustaining system. Therefore, it needs public or private financial support to address affordability goals (Granath Hansson & Lundgren, 2018).

6. Architectural and urban planning standards and quality: This criterion is considered one of the most important criteria for achieving sustainability and success of social housing. By adopting an integrated approach and a long-term strategy, social housing can achieve social cohesion by building quality housing in the area in which it is built to avoid any social separation or future conflict (UNITED NATIONS, 2006).

4. Singapore Experience in Social Housing

Singapore is a city-state with 5.4 million inhabitants residing on 716 square kilometers of land. Housing in Singapore has historically begun in the middle of the island, in the form of ethnic enclaves dotted along the Singapore River. The housing shortage was exacerbated as a result of the destruction caused by World War II. When Singapore gained its independence in 1959, the country's survival was at stake. It was suffering from serious pollution in water resources and a shortage of natural resources. As well as It was being burdened with high unemployment rates and a severe shortage of housing. Moreover, it used to live with 6 People in one room inside the squatter settlements surrounding the city center. One-quarter of a million people had been in slums in the city center, while a third of a million lived in slums in the suburbs. Besides, there was an ethnic conflict between the country's four main components and competing political parties. Singapore had no choice but to try to address all issues (Kwan,2015). S. Dhanabalan, former Minister for National Development in Singapore indicates the importance of social housing in responding to housing shortage with these sentences: *"The top priority when the government came into power was housing the population and building up a manufacturing sector to create employment… at the political level, it was clear that unless you solve the housing problem, you are not going to be able to solve many other problems…"* (Guo, 2016,p.7).

4.1. Main keys of Singapore social housing policy

The government has taken a long-term policy that relies on providing job opportunities and constructing urgent housing. As a result, Singapore initiated a comprehensive development of public housing, with the primary aim of providing residents with affordable housing. The Singapore government realized that solving the housing problem was its way to address the rest of the problems (Yuen, 2007). In the 1960s, Singapore's social housing policies were laid down according to four main keys:

(1) **The Housing and Development Board (HDB):** The government has been the main provider of social housing in Singapore through the Housing and Development Board. It started work in 1960, to provide "decent homes equipped with modern amenities for all those who needed them" (PHANG, 2015, p.2). It adopts a holistic approach to housing by overseeing the full cycle of the social housing program " from land assembly, acquisition, resettlement, city planning, architectural design, engineering work, and building materials production to the allocation, management,

and maintenance of completed housing units"(Deng, Sing, & Ren, 2013, p.105). This gave the housing program flexibility and independence.

(2) **Land Acquisition Act (LAA**) in 1960, only 44 % of the land in Singapore was under the government territory. Then, in 1966, the government enacted the Land Acquisition Act law. This law allowed the state and its agencies to acquire land for any public purpose, or any business or project of public benefit, or public interest. As a result of this act, State property was rented to government agencies to develop "public" housing, which was sold to eligible families on a 99-year lease basis (PHANG, 2015). In the beginning, the compensation value was lower than the market value, as the state's economic situation did not allow compensation of the real land value. However, this law helped the government in lowering the costs of housing provision. Even though the state's economy grew as a result of this law, some considered it a form of forced acquisition. Subsequent amendments to this law in 1987 were to compensate the land at the market price (Bocquet, 2015).

(3) **Central Provident Fund (CPF):** It was founded in 1955 under Singapore's colonial rule as a pension programme to provide social insurance to employers and employees in Singapore. In 1968, the Singapore government reorganized the functioning of this fund to make it an effective real estate finance agency. Therefore, it had been enacted legislation that enabled target groups to withdraw funds from the fund to buy homes through the HDB. Between 1968 and 1981, the law permitted the withdrawal of CPF savings only for the purchase of social housing. Then, the law was further extended in 1981 to provide for the mortgage payment withdrawals for the purchase houses from the private sector. Since 1984, the government has liberalized legislation related to savings, allowing them to be used for various financial assets (PHANG, 2015).

(4) **The target group:** Singapore has clear main criteria for its social housing policy concerning the target group, which has been announced with complete transparency and clarity and is far from any discriminatory measures. The details of the target group have been introduced detail by Yuen as follows: "Flats are allocated based on need, families before singles, on a first registration basis. Applicants can 'walk in' to select flats from existing housing stock or wait for their appointed flats to be built on a build-to-order scheme. To help guard against exclusion and exploitation, the HDB maintains a detailed applications list that indicates the particulars of all applicants, the type of flat applied for, and the geographical zone desired." (Yuen, 2007, p.9) All Singapore citizens with income below a certain threshold are entitled to rent or purchase HDB apartments.

4.2. The Main Goals of Singapore's Social Housing Programs
The primary goal of the social housing program in Singapore was to secure shelter in the first place, and the government also sought to achieve a set of goals for building the state using social housing, namely "Home Ownership Scheme (HOS), Ethnic Integration Policy, and building a vibrant community." (Sim, Yu, & Han, 2003, p.296).

(1) **Home Ownership Scheme (HOS)** The cornerstone of Singapore's social housing plan was the homeownership scheme introduced by the government in 1964 to encourage people to own homes. The government, through a Home Ownership Scheme, was seeking to anchor Stability as the first generation of Singaporeans in the 1960s were immigrants from neighboring countries. These immigrants did not feel that they belonged to the new community. So, the government was thinking about more than housing by creating these immigrants' belonging to society through owning homes. Although Singapore did not have a thriving economy at that time housing policy had a different approach as subsidies to owning homes were generously provided by the government to make the property more desirable by the people than to rent. The best understood of HOS policy can be found in what the Former Prime Minister of Singapore, Mr. Lee Kuan Yew wrote in his memories:*" I wanted a home-owning society.… I believed this sense of ownership was vital for our new society which had no deep roots in a common historical experience."* (PHANG, 2015, p.21) Home Ownership Scheme has transformed Singapore into a homeowner nation whereby in 1990 nearly 92% of Singaporeans owned their homes (Deng, Sing, & Ren, 2013).

(2) **Ethnic Integration Policy (EIP):** Singapore is a multi-ethnic and multi-religious country. In 1957, the composition was comprised of "75.4% Chinese, 13.6% Malays, 9% Indian, and 2.8% others." (Sim, Yu, & Han, 2003, p.295). These races were spatially segregated in the form of ethnic enclaves, resulting in a lack of social cohesions. For these reasons, the state adopted the role of the social engineer by using social housing as a means of spatially integrating the various components of society (Yuen, 2007). The EIP policy was adopted in 1989 to prevent the emergence of ethnic pockets. Through it, the maximum percentage allowed for each ethnic group had been setted in each neighborhood and block of social housing programme. This had ensured a balanced mix of residents from different ethnic groups to encourage interaction and foster cohesion (Sim, Yu, & Han, 2003).

(3) **Building a vibrant community:** To create a vibrant community, HDB has established a strategy to redevelop and renew areas and old buildings to preserve the community. The government found a relationship between the duration of residents' residence and their social interaction, so the longer the length of their stay, the more social interaction and family relations between families in residential complexes. In addition to the policy of ethnic

integration, the Council has taken additional measures to accommodate various income groups in the same building. This move allows families of different incomes and social formations to live and interact. (Sim, Yu, & Han, 2003)

4.3. Urban Design and Planning

At the beginning of social housing in Singapore, the goal was to meet housing urgently. So, apartments and properties were not of the required quality and signs of deterioration appeared early. This prompted a remedy for this deficiency and the launch of programs to develop social housing after the 1970s. These programs aimed to make social housing more livable and enhance social interaction through urban planning. In the 1970s, Singapore followed a strict urban plan for land use following the MRT (Mass Rapid Transit) -centric urban planning concept, as shown in (Figure 2). The new scheme is not limited to providing housing only but is a comprehensive approach that secures community facilities, the basic needs of residents, and basic services for neighborhoods (Yuen, et al., 2006). Each district is considered a self-sufficient community, as approximately 41% of the land area is allocated to housing, while the rest of the space is allocated to recreational, service, cultural, and commercial space, transportation, and all facilities that the neighborhoods need to be an integrated city (Yuen, 2007).
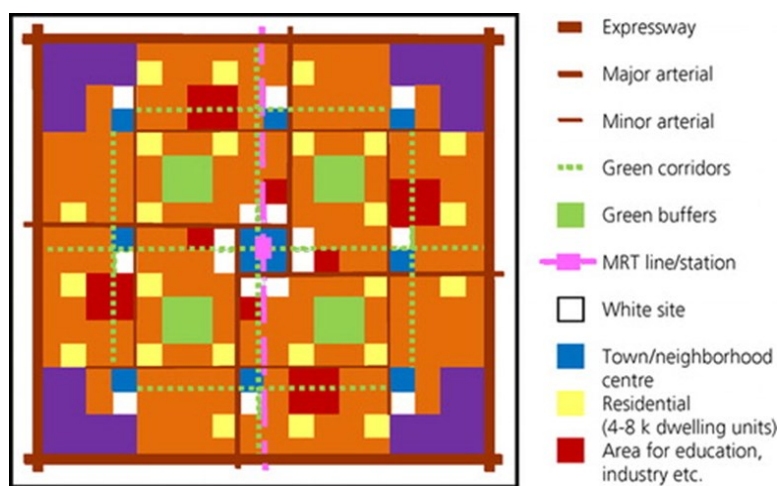

Figure 2. Social housing district planning model prototype (Meng, Zhang, & Wong, 2016)

Every vertical building has been considered as a community. In this context all of the floors haven't been designed as residential, these residential towers were interspersed with empty floors to enhance social cohesion within the building (Bocquet, 2015). The term "Void decks" is introduced with social housing, which includes open spaces in the basement of a building that are used as public spaces. These spaces are designed to create a shared space for community activities such as weddings, bazaars, funerals, polling stations during elections, community care, children's play areas, and more (Menz, et al., 2014). Urban planning has also sought to preserve the habits of the people by inventing new ideas. For example, while street stalls have been closed for reasons of hygiene, communal food stalls have proliferated in neighborhoods and apartment complexes as a value for social and spatial cohesion (Hee, 2017).

Figure 3. Public food court in an HDB Estate (Bocquet, 2015)

4.3.1. Residential System

Social housing in Singapore generally consists of high-density and high-rise development projects (Singapore suffers from a shortage of land for construction). The average height is 12 stories, while the newest rises to 30-40 stories. (Yuen, 2007) In general, there are three styles of social housing residential buildings, namely high-rise HDB flats, condominiums, and

terraced houses. The average per capita is about 30 m2 in living space, which is significantly greater than that of other Asian cities. (Meng, Zhang, & Wong, 2016) While apartments differ in terms of the target group, the number of rooms, and space, they all have in common high quality and are subject to permanent development to meet buyers' preferences. (Deng, Sing, & Ren, 2013) The main categories of public housing include "one-bedroom apartments, two-bedroom apartments, three-bedroom apartments, four-bedroom apartments, five-bedroom apartments. The studio, one and two-bedroom apartments are the smallest with floor areas of less than 50 square meters, while the five-bedroom executive apartments are the largest with an area of over 100 square meters as shown in (table1). (Yuen, et al., 2006)

Table 1. The Various social housing flat type and floor area (HDB)

HDB Flat Types	2-Room Flexi	3-Room	4-Room	5-Room	3Gen	Executive Flat
Approx. floor area (square meters)	36 and 45	60 to 65	90	110	115	130
Total no. of bedrooms	1	2	3	3	4	3
Total no. of bathrooms	1	2	2	2	3	2

Finally, strong points of Singapore's success in social housing have been included. It has been shown its most important features, as it aims to discuss whether these features are transferable to the Syrian case. Which can be summarized in a set of key principles: The first principle: the establishment of a government council responsible for housing policy that defines the legal framework and the housing provider through the Housing and Development Board, which gave the housing process flexibility and independence. In addition to issuing laws related to land acquisition. The second principle: Promoting the development of homeownership, as the Singaporean government has worked to achieve its goal of a society in which all members own their homes. Until the end of the last century, 92% of Singapore's population lived in social housing properties, and this is a shift in the housing pattern after most of the people in the 1950s lived in "one of the world's worst slums". The third principle: achieving social justice and reducing the rates of social problems at their minimum levels. The Singaporean government has thought about the importance of overcoming the mistakes of other countries that appeared in social housing projects, such as the spread of crime or social segregation. Therefore, it enacted a policy of ethnic integration to prevent the emergence of any future conflicts. The housing policy that I followed revealed that the housing factor could be a solution to coexistence and build social cohesion. Principle 4: When analyzing Singapore's housing policy, it is important to realize first that housing in Singapore is not for profit or providing shelter for the poor, it was crucial to nation-building.

5. Housing in Syria

5.1. Pre-war Syria's Housing Crisis

Syria is a highly urbanized country, with urban areas housing 55 % of the population. Housing situation described as a "crisis" before the war. Housing shortages have been one of Syria's problems since the 1970s, owing to the government's negligence and absence of planning, especially for low-income groups. (Haddad, 2018) The government has not committed any of its agencies to develop a solution to assist these communities in resolving their housing issues. According to the United Nations Human Settlements Program, Informal settlements in Syria grew by 200 percent between 1994 and 2010 (Ibrahim, 2014). Up till the percentage of the population living in informal settlements estimated 50 % (Goulden, 2011).

Generally, Before the war, Syria's housing problems were divided into two major categories: first, the total size of the construction sector was less than required and was unable to keep pace with growth. According to the Syrian Economic Center's 2007 survey, the country's housing deficit was 1.5 million house units. According to the study, Syria needed 86,000 housing units each year only to sustain the same deficit. The high demand for housing as a result of the shortage of housing units led to a mismatch between supply and demand and the accumulation of deficits (Haddad, 2018). Secondly, the rise in the purchasing value of housing to a way that exceeds the ability of individuals with limited income has made obtaining a home in Syria was an equivalent to a strategic goal around which the life of the Syrian citizen revolves. This bitter reality pushed the Syrians to turn towards informal housing areas, which contributed to their spread.

Table 2. The table includes approximate numbers that show average house prices compared to per capita income. (Haddad, 2018).

year	Regular home price (Syrian pound)	Average monthly rent (Syrian pound)	The number of months it would take to pay off the house value
1970	10,000	200	50 months
1985	200,000	2000	100 months
2000	1000,000	4,000	250 months
2010	4000,000	10,000	400 months
2018	20,000,000	40,000	500 months

Figure 4. Informal settlements mount Qassiun are overlooking the city center of Damascus (Clerc, 2014)

5.2. Post-war Syria Housing Situation

Syrian war 2011 was a direct blow to the housing sector, as neighborhoods and buildings were turned into battlefields. Which caused tremendous damage to residential buildings. The World Bank estimates that until the beginning of 2017, approximately 1.7 million homes have been affected, which constitutes 27% of the total housing stock in Syria. The percentage of completely damaged buildings is 7%, While the percentage of partially damaged housing stock is 20%. (Haddad, 2018).

Figure 5. Photos from Homs city 13 April 2014. (photo by Lens Young Homsi)

Moreover, war has forced more than half of Syria's population to move from their homes. The majority of displaced Syrians, whether inside or outside the country, suffer from restrictions in obtaining adequate housing in short and medium-term. Although the focus is always on the issues of international displacement in neighboring countries, there is still another aspect, which is internal displacement. There are approximately 6.7 million displaced people inside Syria, and less than 3% of them reached formal shelter services under different authorities either government or opposition groups, while the others live with host families or in private housing or informal settlements. Besides, the brutal conflict in Syria and the obstacles to access to international humanitarian aid has also led to the emergence of a different form of shelters, such as short-term temporary shelter as educational and public buildings, or spontaneous settlements of camps in parks and public places, or the use of uncompleted construction (Al Asali, Wagemann, & Ramage, 2019).

Figure 6. Shelter centers in Adra, eastern Ghouta (social networking sites)

5.3. Current Demand for Housing

Post- displacement, the people of Syria is estimated at 18.5 million in 2017, with natural growth. President of the Cercle des Economistes Arabes Samir Al-Aita had been estimated that the demand on the housing sector after the war includes two main needs: First is the need for construction to accommodate the natural growth of the population is about 160,000 housing units annually, 70% of which is urban. Second is the annual needs for reconstruction to rebuild the damaged stock, which links immediately with desire of the displaced and refugees to return, assuming a "quick" return of both the displaced and refugees within 5 years. The total demand will range from 148% to 222% of what it had been before the war. Therefore, this reality raises problems that must be confronted with policies and legal efforts, according to Al-Aita, provided that they start from organizing the current urban gap (AITA, 2020).

According to this data, it is obvious that the housing sector will be a difficult task that the Syrians await in the reconstruction period, which is the real challenge to nation-building. Considering that the situation of the countries after war tends to be complex with their weak economic and technical capabilities, and lack of resources, the recovery of required needs and solutions should be applied with urgent and immediate treatment. The solution of this demolition is not limited to an easy rebuilding of what was demolished but needs a more sustainable and qualified policy in order to prevent to turn back to the existing crisis before the war.

5.4. The Experience of Syria in Social Housing Before the War

The start of social housing in Syria in 1980, the government is the only provider of the social housing sector through the General Establishment for Housing and Military Housing Establishment by providing apartments at reduced prices in the suburbs of cities for people with low incomes. The purchase system was the subscriber registers an application for an apartment in the dwelling, pays a percentage of the house's value, then chooses the monthly installments to pay for the house over 25 years. This program has suffered from severe weakness can be summarized as follows: (1) Weak legislation in protecting the right of the target group in this sector, which is the low-income group, which prompted the rich to buy apartments at a reduced price and then sell them later for investment (2) Social housing projects were established in the suburbs in the absence of basic services in most of them, and urban planning and the social dimension were neglected in the design of residential blocks and did not take into account aspects of urban planning. The use of traditional building techniques, the absence of oversight, and widespread corruption have degraded the quality of housing. (3) Low-income people faced difficulty obtaining a loan to finance homeownership from government banks due to the bureaucracy and complexities of government legislation. As a result, the housing program has fallen short of what is common in social housing. The housing program did not live up to what is common in social housing. The absence of policies led to the need for a new and better organized social housing program (Kassouha, 2020).

6. Results and Discussion

This research emphasizes the possibility of transferring the strategies that succeeded in providing permanent social housing in Singapore to the Syrian context. The applicability of Singapore's approved housing strategy has been examined in the Syrian context based on sufficient discussion and well-informed arguments. First, the concept of social housing is transferable, and this is what made the concept popular in most countries of the world despite its difference from one place/country to another. Therefore, "It is crucial to trace back housing improvement in the experiences of the previous strategies in which the roots of this success is embedded, in order to provide some guidelines for todays' post-war cities" (HatipogluKalfaoglu, 2020, p.203). Figure 7 shows the possibility of transferring the concept of social housing from the Singaporean case to the Syrian context.
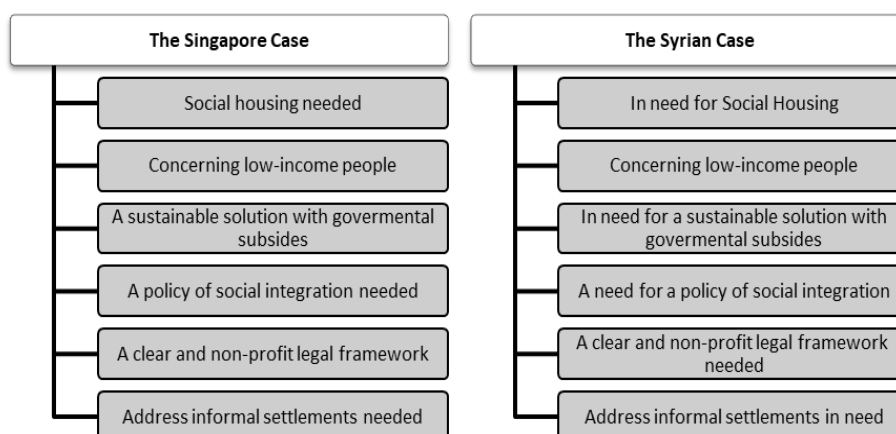

Figure 7. The possibility of transferring the concept of social housing from the Singaporean case to the Syrian context (By authors).

However, as discussed in the previous chapters about the housing situation now in Syria today, the number of people in need of qualified housing has been increasing day-after-day. This emphasizes the requirement for a sustainable strategy for housing with affordable, permanent solutions, with subsidies from the government authorities. After verifying the possibility of importing the Singaporean experience into the Syrian context, the study proposes a list of recommendations for developing a social housing strategy based on a clear legal framework which also provides a base for social housing.

6.1. Social Housing Law

The government is the legislative and legal framework for social housing policy in any country through laws, policies, and regulations. It regulates housing policy, target groups, implementation methods, financing methods, and other social housing standards. It is important to define these criteria before starting any housing operation. Singapore has created a one-level government. It directly supervises the social housing process through the HDB which was overseeing the full cycle of the social housing program. Moreover, the government provided all financial facilities to this board as a political and financial commitment, which in turn contributed to securing a correct path for the housing process. In the experience of Syria, the social housing law lacked a clear definition. For example, the basic criteria of this program were ill-defined, as target group, maximum income, the provider, time schedule to supply the housing units and other main criteria. Based on this, it is important to create a legal and legislative environment that helps build the housing sector away from previous laws, capable of defining the social housing policy and establishing a unified national body whose mission is to directly supervise housing policy for more flexibility and independence.

6.2. Target Group

The main goal of social housing policies is facilitating supply to housing for vulnerable social groups. Which in turn, this is the main theme of a sustainable social housing program. The criteria for selecting the target group in Singapore for social housing began with those most in need: priority was given to those living in the shantytowns at risk of collapse on both sides of the Singapore River. Then it expanded to include squatters, especially in the city center area, because of the government's plans to use the city center, which was a center for the spread of diseases, to empty it and use it for commercial purposes to revive the deteriorating economy and create job opportunities for the population. Later, it expanded to include the poor and low-income people, and then middle-income earners. Owing to the Syrian context, defining the target group should be the starting point of social housing policy, even though it is a difficult task. After a decade of the Syrian war, nearly 50% of the population is considered to be in urgent need of housing among the internally displaced inside the country or those living in camps in northern Syria, or even refugees in camps in neighboring countries. Determining target groups from the point of view of social housing is more difficult in Syria. But in general, a definition of the target group can be defined within two main scopes:

The narrow scope includes the target groups who are homeless (roofless and houseless). For example, the people affected by the war whose homes were destroyed during the war can be considered the internally displaced in temporary shelter and refugees in the camps as the most vulnerable people. Especially women-headed households, child-headed households, people with disabilities.

The wider scope groups include every housing situation that may be considered inadequate in a social, physical, economical, and legal sense. Which include the low-income, poor, and slum dwellers. Despite the difficulty of defining the target group in light of the great need of most of the social groups, it is needed to follow a clear non-discriminatory policy for effective sustainable, and comprehensive social housing.

6.3. Financing Support and Subsidies

The government in Singapore had been committed to providing housing for the lowest-income groups by renting a home at an affordable cost. The rent system was comprehensive and with multiple options. So, the family could choose the house in terms of the area according to its ability to afford the rent. Moreover, the rent value for residential apartments is calculated as part of a comprehensive study that considers the minimum wage in the country. So that the citizen does not bear a financial burden. It was this difference that helped the government achieve its target of housing policy. As time went by, Singapore achieved some economic growth and treated the housing shortage. Accordingly, the government started encouraging housing ownership by providing financial facilities. In the Syrian experience, the government has been supporting social housing by providing long-term loans to buyers. While it did not support rent in social housing. However, this scheme encountered many challenges, the most significant of which was corruption, favoritism, and bureaucracy, which posed a barrier to accessing funds to sustain low-income housing.

By drawing on Singapore's experience, the social housing in the form of subsidized rent needs to be provided by the Syrian government for a period of time. with considering the present situation of the Syrian citizen's income and economic condition. The rent system can achieve two main goals: to secure cash liquidity to the government through rent payments to support development of housing and provide housing to the most Syrians who do not currently have money to pay as a down payment for ownership, regardless of its reduced value.

6.4. Living with Quality

Architecture in Syria played a negative role in the life of society. Where it contributed to its disintegration. Moreover, new neighborhoods were created that were segregated by creed, class, or affluence. Besides, the brutal vertical towers were spread, whose inhabitants do not know each other. Furthermore, there were no shared spaces where people could congregate, nor was there an environment that encouraged social contact. So, the modern building style failed to create social integration. Architecture in Syria has helped in creating divided communities, which helped to intensify divisions within the community and enhanced social separation (al-Sabouni & Scruton, 2016).

The careful bottom-up design of neighborhoods is extremely important in the quest for the design of sustainable cities. Poorly planned social housing in cities' banlieues has culminated in the development of poverty ghettos that deepen and exacerbate inequality and spark social unrest (Chetty & Hendren, 2015). Architecture is the vacuum and space that constitute society. It has the potential to have a positive effect on society by improving vocabularies in residential areas, which is linked to social quality. The quality of the built environment in the housing projects enhances the lifestyle and social interactions of inhabitants. Moreover, it must be understood that housing is "more than a place that solves basic human needs" (HatipogluKalfaoglu, 2017, p.88).

Singapore recognized the role of sustainable high-quality housing in creating social sustainability and enhancing people's lives early on. So, it designed integrated communities in social housing buildings, with access to high-quality public services in all of them. In addition to designing residential buildings where all income groups and races meet, meet, play, and eat together.

7. Conclusions

The term "housing crisis" can be considered as the housing situation in Syria before the war. This term is not enough to describe the current disastrous housing sector in Syria today. The risk does not stop at the destruction caused to this sector, but rather extends to the current private sector practices, which found an opportunity to invest at the expense of the Syrian people. This situation reveals the necessity of the development of urgent strategies for a sustainable and livable future for the destroyed Syria.

The best way to recover this destruction which can turn this demolition to an opportunity is the introduction of social housing model, which is not an easy task. But it is possible to exceed this challenge by following successful experiences. Singapore social housing has been chosen in this study to demonstrate the strong points in terms of strategies and implementations. A detailed analysis has been made and a discussion has been conducted for the possibility of transferring this experience.

In order to practice the success of the introduced transfer, some demonstrative cases should be implemented on a limited scale for a specific region or certain groups. When the experiment would have been successful, it can be applied to the rest of the country/ groups. Besides, this model must be based on a careful analysis of the long-term shortage of social housing and its effects on the budgets of the central government and municipalities. This data is not available at present considering the current situation in Syria.

As a result of the review of Syrian background in comparison with the implementations in Singapore social housing, it is obvious that the Syrian context requires many discussions, improvement of policies and housing approaches that differ from those that prevailed before the war. Because the success of social housing in Singapore today, one of which is demonstrated in achieving sustainability and quality of housing, is the product of their long-term history of experiences and policies for more than 50 years. These policies can provide lessons for post-war Syria, as the positively affecting factors of architecture can be translated considering that all humans in the world desire and deserve a liveable life. For the Housing strategy to achieve a sustainable housing approach, it has to go beyond providing a shelter. It must address the economic, cultural, social, and ethical dimensions of the area in which the new design will be implemented. Moreover, social housing must consider the integration of the different groups of society to achieve social sustainability. The housing projects need to be capable of providing social quality and sustainability and quality of housing, "which improves" social relations of people, a sustainable and more liveable future will be ensured." (HatipogluKalfaoglu, 2017, p.107).

An intensive effort should be presented with policies and collaboration of different actors to advance the residential sector in Syria according to new requirements and a new vision. This study has drawn a line for this new vision with the analysis of the process and results of Singapore's social housing experience considering the possible reflection of this experience and the gaps in Syrian context. Moreover, this framework leads a path to derive other detailed studies and approaches that consider the economic, social, and political conditions of a country emerging from war.

Further studies of the writers aim to search for development of more strategies for the seeked livable housing reconstruction in Syria.

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Conflict of Interests
The authors declare no conflict of interest.

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