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Qualitative Sustainability Assessment of the Large-Scale Redevelopment Plan in Samen District of Mashhad

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ABSTRACT: Redevelopment of distressed and blighted areas are targeted by most of development policies. However, a number of policies have been changed as the result of the ineffectiveness of the previous experiences, the incompatibility of the development tools and plans, the lack of financial resources or social movements. Large-scale redevelopment projects have usually been considered as the powerful tools for urban revitalization, modernization and implementation of radical plans while many of those were criticized due to their various consequences including social exclusion, inequality, social conflicts, environmental damages, inconsistent scale, etc. Downtown of the City of Mashhad; Samen District, has experienced various physical interventions in the form of large-scale projects during the last century. Although the projects and intervention policies have been transformed during the past decades, previous faults were ignored and sometimes were iterated in these experiences. In fact, it seems that urban development solutions in the district have not been sustainable solutions and couldn't maintain or shape a sustainable community in the historical and formerly economic urban core of Mashhad. This paper, focusing on mega redevelopment projects experienced in Samen Districst after 1920s, aims to highlight the critical aspects neglected or bent in Samen redevelopment program. Based on the nature of large-scale redevelopment projects and the current sustainability criteria, it qualitatively assesses the sustainability of the redevelopment projects through content-analysis method. According to the results, despite the competitiveness and place promotion goals of the Samen redevelopment project, the adopted approaches and policies could not lead to a state of sustainable development.

Keywords: *Large-Scale Redevelopment Project, Megaproject, Sustainability, Samen District, Mashhad* City.

INTRODUCTION

Brownfields and distressed areas are known as of the main concerns of cities and large-scale redevelopment projects. These parts have been frequently considered as tools and solutions for the urban problems and challenge. Most of the recent large-scale redevelopment projects are the results of demand for reproduction of old urban zones based on the new conceptions in the neoliberalism era. In other words, cities, particularly those which set their vision for more competitiveness in international and regional scale, seek better urban spaces, tourist attraction, progressive infrastructure, job creation, diverse housing opportunities, better urban environment and these all could be achieved through a large-scale redevelopment in their strategic places (usually central districts, brownfield areas and old CBDs). Particular characteristics of the large-scale redevelopment projects (megaprojects) differentiate them from other redevelopment and development programs and highlight their specific challenges and issues.

Several researchers have studied the assessment of redevelopment interventions in Samen District as one of the major distressed areas in Mashhad. They mostly studied different investment methods (e.g. Jafarzade Najar & Jannati Namin, 2013; Ahmadi, 2010) as well as financial public participation (e.g. Hosseyni, 2008; 2013). In addition, there are some studies about the identity, regeneration, and urban design (e.g. Naghsan Mohammadi & Bagherinezad, 2013; Jalali,

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2012). This article looks at the intervention policies and the redevelopment projects in Samen District and assesses their sustainability and their efficiency to meet the city's long-term demands.

The holy shrine of Imam Reza[1], situated in the center of Samen District, is the initial urban core of Mashhad that envisaged with different policies in parallel with the transformation of political and social views to the holy shrine and distressed areas. In other words, different approaches to urban development along with the different attitudes about the sacred places in various periods have shaped the urban form of Mashhad downtown (the placement of holy shrine and the hearth of the city). The district has been reshaped since Safavid era for many times and the redevelopment of the district, is still continuing. Nowadays, the district has lost the majority of its old buildings, local business, historical urban spaces and local residents. Those are replaced by many hotels, shopping malls, new urban spaces, streets as the result of the adopted urban redevelopment program.

Downtown of Mashhad, Samen District, has experienced precipitate changes by different renovation approaches for several times. In fact, the shrine and its related buildings as a sacred complex and the financial ability of the shrine's trustees and urban management, using government funding and the proceeds from the pilgrims and urban endowments have made the radical interventions possible (Sarkheyli et al., 2015). The first redevelopment program included the construction of courtyards and connectors to the shrine and major buildings dating back to the Safavids and Timuri eras. It continued with the disconnection of Bazar due to the construction of a large roundabout around the shrine during the first Pahlavi era. This was followed by the movement of Bazar and the extensive clearance and demolition of houses and retail stores to build a huge traffic circle around the shrine during the second Pahlavi era. Finally, the giant redevelopment effort (a 360 hectare plan) included the expansion of the holy shrine complex on its peripheral distressed fabric after the Islamic Revolution.

This paper aiming to highlight the critical aspects that were neglected or bent in Samen redevelopment program, seeks to review the redevelopment policies and approached as well as large-scale redevelopment projects in Samen District and assess how the current policies and projects applied are sustainable solutions. Therefore, after reviewing the related literature about large-scale redevelopment projects and the evolution of redevelopment policies, the large-scale redevelopment plans in Samen District are explained and the sustainability of the policies and redevelopment projects are analyzed.

Large-Scale Redevelopment Projects

A "large-scale project" is often a combination of independent and diverse "small-scale projects" brought together under an "umbrella project" (Mariotte, 2007). Mariotte (2007) explains that large-scale projects are: i) visible levers for urban and regional revitalization; ii) Powerful instruments for implementing public strategies; and iii) laboratories for urban innovation. Thus, those are interesting tools for urban managers and planners.

Large-scale redevelopment projects are also considered as megaprojects and include particular characteristics comparing to smaller scale ones. Megaprojects could be distinguished from other urban projects with their extent and magnificence in terms of their scale, cost, time or their impacts. There are different kinds of urban megaprojects such as expensive infrastructure projects; airports; intersections; highways; large-scale redevelopment projects; flagship projects; shopping malls that mostly are defined as megaprojects regarding to their cost (costing more than $ 1 billion). According to Preimus et al. (2008), megaprojects are colossal in size and scope, captivating, costly, controversial, complex and laden with control. Overall, megaprojects characterized by: cost overrun, benefit shortfalls, being expensive, risky, optimism, deception, initiative, luxurious, complexity, large-scale, media attraction, involving or affecting different actors and stakeholders, and consisting global or extra-urban goals (Flyvbjerg, 2007; 2012; Altshuler & Luberoff, 2003; Orueta & Fainstein, 2008).

Evolution of the Approaches to Large-Scale Redevelopments

According to Altshuler & Luberoff (2003) the main features of megaprojects have been changed over time: the era of massive governmental-funded megaprojects (1950-late 1960s), the transition era (mid 1960s-early 1970s), and the era of megaprojects without environmental impacts (mid 1970s-present) (Table1). Lehrer & Laidley (2009) explain that the recent generation of megaprojects, made in the late 1980s, include mixed-use large-scale developments based on private partnerships in huge commercial developments and usually associated with a central business district.

In addition, Orueta & Fainstein (2008) state that new mega redevelopment projects are developed in the context of public-private partnership using the neoliberalism ideology that has been outspread worldwide since 1970s. They have increased with the boom of investment in cities (Altshul &Luberoff, 2003), and have tent to be built in the brownfield areas or blighted areas with high potentials for profitability and are frequently mixed-use (Orueta & Fainstein, 2008).

Also, renewal approaches has changed their focus from modernization, deconstruction, and redevelopment approaches in 1950s to rehabilitation and revitalization and renewal projects which care more about historical sites and conservation of cultural heritages in 1970s (Table 1). The 1970s evolutions led to the first practical steps toward the creation of common grounds between conservation and development approaches (Hanachi & Fadayinezad, 2011). These efforts have been faded in many societies mostly due to the financial problems and funding issue.

Neoliberalism ideology supporting the higher profit of private investments and focusing on the values of public-private approaches was used widely and the large-scale redevelopment

projects have spread significantly due to the new demands of cities to progressive facilities and infrastructure (as the requirements of regional competitiveness and globalization). As a result, many cities have defined megaprojects in order to provide necessary transportation infrastructure, water and sewage system, sport facilities, convention centers, recreate their central business districts and improve tourist attractions. In this era, regeneration projects have been the common renewal projects seeking the renovation of both content and physical structure.

Meanwhile, the increase of social and environmental concerns since 1990s has led to more attention to communities' demands. "Scholars are increasingly recognizing the importance of local assets, i.e., physical capital and social capital, in creating healthy communities" (Arefi, 2004). Arefi & Meyers (2003) believe that place-oriented policies should be replaced by people-oriented policies. In many megaprojects particularly in democratic societies, the involvement of communities by project promoters in the early stages of a megaproject is a principal requirement (Kudadirgwa, 2013). So, it can be claimed that a new generation of megaprojects has emerged that adhere to the engagement of various stakeholders to meet social sustainability.

Furthermore, during the recent two decades, culture-led regeneration and sustainable regeneration have been discussed as principles in urban regeneration. The culture-led regeneration approach looks for economic growth through innovation and creative industries (Lotfi, 2011). Also, sustainable regeneration emphasizes on stronger public participation, brownfield development and innovative economic development (Bahreyni et al., 2013).

In pioneer societies, the shifts in emphasis have relied upon the lessons learned from previous redevelopment experiences, the faults and unsustainable practices. The lessons learned could be summarized in the conservation of historical and cultural heritages, reducing environmental impacts of development, benefiting from private partnership, emphasizing on social capital and public participation, culture-led regeneration and creation of green neighborhoods (i.e. sustainable and zero energy zones, more green space) and applying smart growth principles (i.e. mixed-use development, walkability, transit-oriented development, urban spaces).

Therefore, it can be said that the urban renewal policies have emphasized on sustainability of redevelopment process and its production. In general, the sustainability conception can be described in three aspects: Social sustainability, environmental sustainability, and economic sustainability. Thus, large-scale redevelopment project and intervention policies are sustainable if they continue and are able to minimize the negative social, economic and environmental impacts of themselves and instead bring social mobility, economic growth and environmental improvement.

MATERIALS AND METHODS

According to the main questions of the paper, the study area is Samen District (one of the thirteen urban districts in Mashhad) located in the historical core of the city. The district includes Imam Reza holy shrine and its related building as a complex and also the aggregation of many retail stores, urban services, hotels, guest houses, residential and official buildings. The study includes a time period since 1960s to now.

Researchers have applied different factors for sustainability assessment. Moztarzadeh et al. (2013), reviewing most international valid references about sustainable communities, concluded eight components (economic, socio-cultural, political-administrative, physical, transport & communication, service, environment and human) as the criteria of sustainable community. However, they mention that the selection of the sustainability criteria is depended on local conditions.

On the other hand, many researchers apply quantitative indicators and methods to analyze sustainability while some uses survey method (Ghalambor Dezfooly, 2013) or qualitative indicators (e.g. Scerri & James, 2010). In this paper, the research approach is qualitative and the content-analysis of documents, academic and newspaper articles as well as descriptive statistical analysis have applied.

Table 1. The general evolution of large-scale redevelopment projects

Period	Target	Funding	Focus, Approach	Challenges
1950s- 1960s	Blighted areas, undeveloped rural areas	Government fund	Deconstruction and redevelopment	Extensive displacement, environmental impacts, destruction of cultural heritage
mid 1960s- early 1970s	the transition era	Public fund	Rehabilitation, heritage conservation, renewal projects	lack of financial resources, Totalitarian renewal projects
Mid 1970s- late 1980s	megaprojects without environmental impacts	Private partnerships	Renewal projects, first regeneration projects	Non-vibrant urban spaces
Late 1980s	Brownfield areas, CBDs	Public-private partnership	Regeneration, economic growth, mixed-use development, stakeholder engagement	Unaffordability of redeveloped areas, lack of public participation

While looking at the comprehensive list, in this paper, sustainability assessment of large-scale redevelopment projects was done based on three famous dimensions of sustainability (economic, environmental-physical, social-cultural) (Table 2). The criteria were adopted according to the lessons learned (critics and related scholar's suggestions) from previous mega and large-scale redevelopment projects and experienced intervention policies.

In fact, while a sustainable megaproject should be able to bring about economic growth, entrepreneurship and the capital accumulation via the attraction of private investments, the economic growth must tend to the knowledge-based, innovative and culture-led industries.

Regarding the environmental and physical sustainability, megaprojects are usually designed to be the model neighborhood for future developments. Therefore, sustainable megaprojects must encourage environmentally-friendly buildings (e.g. using sustainable energies, zero-energy zones, green buildings and neighborhoods and minimizing the negative environmental consequences of urban development).

On the other hand, while megaprojects might create urban and social spaces, they are criticized for being unaffordable and luxurious, large displacement, and lack of attention to stakeholder's interests. Therefore, the sustainable megaprojects should contain enough policies to provide inclusive urban spaces, affordable units and jobs, and to mitigate the negative impacts of displacement. Also they should include strong public participation, stakeholder and community engagement.

Redevelopment Experiences in Samen District

Mashhad is the Capital City of Khorasan Razavi Province, located in the northeast of Iran. The city has witnessed rapid growth during the last two decades due to its economic, social and religious attractions (Rafiee et al., 2009). The city benefits from many pilgrims and tourists due to the placement of the holy shrine of the Eighth Shia Imam (PBUH). Samen District is the historical core of Mashhad where the holy shrine is located. It has been shaped gradually around the Imam Reza's Tomb since the death of the Imam (Ziyaiyan et al., 2011).

Thenceforth, Mashhad Downtown (Samen District), a 360 hectare district, has experienced multiple interventions due to locating Imam Reza Holy Shrine, old and historic fabric and

Table 2. The criteria for sustainability assessment of large-scale redevelopment projects

Dimensions		Criteria
Economic	Process	Ec1: The redevelopment progress based on the anticipated cost and timeline.
	Result	Ec2: The adopted policies encourage private investments in redevelopment. Ec3: The adopted policies minimize the financial costs for public sector (urban management and government). Ec4: The redevelopment's revenues and benefits should be able to meet its preliminary and secondary consequences. Ec5: The proposed land usage could result in economic benefits for city and citizens. Ec6: The adopted policies encourage entrepreneurship growth and competitiveness. Ec7: The adopted policies encourage culture-led regeneration and innovative industries.
Environmental-physical	Process	En1: Include practical policies for mitigation of negative environmental effects of construction works (e.g. dust and noise).
	Result	En2: The adopted policies minimize the destruction of green-spaces and physical structures or consider replacement policies. En3: Provide accessible open and green space. En4: Include practical policies for creation of green neighborhoods (e.g. green and environmentally-friendly buildings, zero energy zones). En5: The plan includes practical policies toward smart growth (e.g. pedestrian-oriented and transit-oriented development, mixed-use development). En6: the plan insures the inclusive access to diverse transportation choices and public-transit. En7: the policies insure the connectivity of new developments with old ones and preserve the district's identity.
Socio-cultural	Process	So1: The plan and policies include informing and transparency policies. So2: The plan benefits from public-participation in decision-making.
	Result	So3: The adopted policies minimize the displacement of residents or include solutions for mitigation of the negative consequences of displacement. So4: The plan minimizes the destruction of existed public and historical buildings. So5: The plan considers policies to protect social capital. So6: The plan and adopted policies include the provision of affordable housing and jobs. So7: The plan provides inclusive urban spaces and should lead to the place promotion.

agglomeration of pilgrims and visitors (Rahnama & Abbaszade, 2006). Before the recent renewal program, the district's population in 1991 was estimated 58000 persons and about 13000 residential, retail and official plots (Asgharpour Masule & Behravan, 2010). The district's population significantly decreased to 32851 persons in 2011 due to vast displacement and compulsory acquisition by Mashhad Municipality.

Since 1941, the physical expansion of Mashhad began due to the war, new economic efforts, immigration to the city, improvement of transportation technology, the construction of street, electricity network and amenity improvement (Rahnama & Abbaszadeh, 2006). The first renewal plan for the shrine's surrounding in 1966, has been one of the most controversial interventions for reshaping the Mashhad downtown (Akbari Motlagh, 2014; Naghsan Mohammadi & Bagherinezad, 2013). The plan, prepared by Borbor (n.d.) (Fig. 1), recognized the building and urban texture around the shrine historically invaluable (Akbari Motlagh, 2014). So, it suggested the destruction of existed buildings and the historical Bazar and instead the creation of green space, the separation of vehicle and pedestrian, and replacement of Bazar, guesthouses and residential buildings to better places. The plan's implementation was depended on the revenues from goodwill for free renovation of existed houses and retail stores. Moreover, it was supposed to be a financial resource for municipality, city and citizens. The extension of shrine and land release around the shrine (destruction of existed building within a radius of 320 meters from the shrine (Erfanian Salim & Asgharzade, 2013) occurred through the authority of Abdolazim Valiyan in 1973. Also, the Mashhad comprehensive and master plan in 1971 distinguished the old buildings around the shrine as unworthy. The plan suggested physical privacy and altitude privacy around the shrine (Erfanian Salim & Asgharzade, 2013) and a new (35 meters wide) street was constructed around the shrine (Fig. 2). However, the plan's implementation was stopped due to the Islamic revolution in 1978.

After Islamic revolution, religious approach of new government and urban managers and giving the authority of Astan Qods Razavi (the shrine complex) to a representative from clergy society accompanied with criticizing prior approaches to the shrine complex and the built large roundabout due to the exclusion of holy shrine (Sarkheyli et al., 2015). In addition, according to the new comprehensive plan adopted in 1992 (Mehrazan Comprehensive Plan), the physical structure around the holy shrine, has been considered as unworthy (Akbari Motlagh, 2014). So, new urban design; the coordination and

Fig. 1: Renewal plan (Borbor, 1971)

Fig. 2: The large roundabout around shrine complex, widening and construction of streets (Mihanblog, 2015)

continuity of physical elements with cultural and religious values and the shrine complex; and meeting the needs of visitors and residents were determined as the overall plan's guidelines. Therefore, nearly all of the old fabric were recognized as worthless and targeted for bulldozing. The main interventions after The Islamic Revolution in Samen District include two large-scale projects (Rahnama, 2008) were :

The physical expansion of shrine complex (time horizon 2016);

The redevelopment plan of Samen District (time horizon 2021).

The underpass roadway constructed to facilitate vehicle transportation in downtown in 1995. Moreover, in 1992, the Housing and Urban Development Ministry outlined the urgency of urban redevelopment in Mashhad downtown. Also, due to the related statement of the supreme leader of Iran, a company called Maskansazan (the cooperation of municipality, Astan Qods and Housing and Urban Development Ministry) founded. In 1999, the company determined one person as CEO to accelerate the implantation process and attract investors.

The new renewal program (Fig. 3) for the district was prepared by TASH (consulting architects and urban planners). According to the plan, the existed physical texture was invaluable for conservation. 73% of the passages were less than 6 meter width, 82% of buildings were nonstandard and unsafe and 70% of the plots were less than 200 meter cubic (Samen Municipality, 2015).The renewal plan was approved in 1995 in the Commission Article 5, and was confirmed in Supreme Council for Planning and Architecture in 1996. However, it was reviewed in 1998 and was approved in 1999. The redevelopment plan's goals include global intentions and competitiveness in local, regional and international level (introducing the cultural-religious role of holy shrine complex as one of the Islamic world's hubs and stabilizing its position in international, national and local level (Hosseyni, 2008)). Therefore, the large-scale redevelopment plan as a megaproject seeks place promotion, global position, competitiveness. Also it is costly, large- scale and involves plenty of stakeholders.

The renewal project includes two main zones (direct and indirect intervention zones) and several proposed executive projects. It divides the whole district to the four segments and by offering higher density and area of accommodation and retail land use and widening streets (Asgharpour Masule & Behravan, 2010) looks for the improvement of urban services and facilities. Also, it suggests project financing via the revenues from issuance of building permits.

According to the plan, the four cross streets in the district are widen and four other routs as garden paths are built among the cross streets. Also, the physical territory of the shrine complex increases to 51 hectare. A circular street called "Sharestan Razavi" is built and becomes the boundary between sacred space and non-sacred and traffic space. The direct intervention area, around the new shrine complex, is 84 hectare and includes 365 commercial buildings. The non-direct intervention area include 126 hectare that the construction of commercial building, apartment hotels and residential buildings are allowed in the land lots larger than 1500 square meters and adjacent to main streets, larger than 350-500 square meters, and over 150 square meters respectively. In addition, discount on municipal taxes and density incentives are outlined to encourage higher-density development and so realization of plan. Since 2004, public-private partnership and financial public participation approaches have been applied for the implementation of the plan.

Mashhad Municipality has used various financing method to implement the redevelopment plan. The different financing methods include: selling the properties owned by municipality (about 169 projects costing over 32000 billion Rials); renting and mortgaging properties; selling a square meter or Samen Housing Program (targeting the low income and vulnerable classes and include seven projects and 1477 residential units, 404 retail stores and a further 1000 residential units); partnership (32 commercial, hotel and residential projects via participation bonds costing 800 billion Rials); public funds and bank facilities; stakeholder or shareholder method (140 Billion Rials and 136 billion Rials for Sara and Narjes

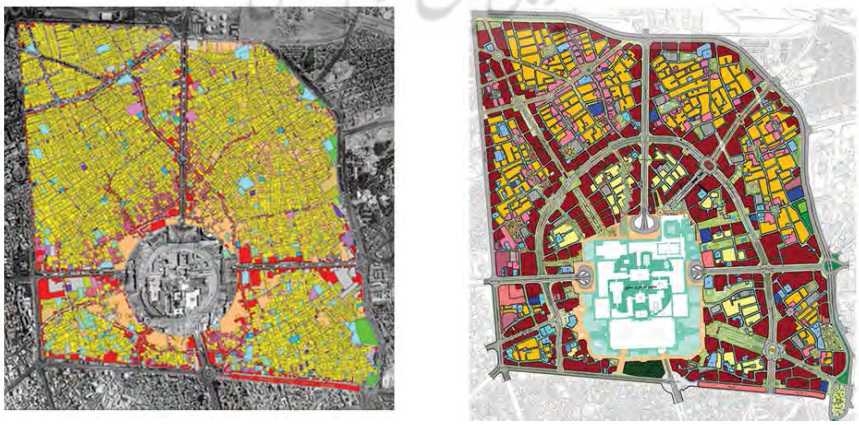

Fig. 3: right: Land uses in Samen district in 1994, left: Samen's redevelopment plan (Tash, 2015)

Projects respectively); Attracting investors to certain projects (130 projects in direct intervention zones and 39 projects in indirect intervention zones about 48000 billion Rials); the Plan's Account (An agreement between the municipality and Urban Development and Revitalization Corporation in order to transfer the plan's executive management to Samen Development and Housing Corporation)(Jafarzade Najar & Jannati Naim, 2013).

Other implementation policies of the redevelopment plan include development incentives and incentives to encourage land aggregation. Also, discount rules and installment facilities are provided to facilitate the payment of the building permit fee, consulting services for redevelopment.

Table 3 summarizes the experienced large-scale redevelopment projects in Samen District. Also, Fig. 4 shows the current situation of the district (the destruction of old fabric, numerous vacant land lots, scattered high rise buildings, and the existing distressed area.

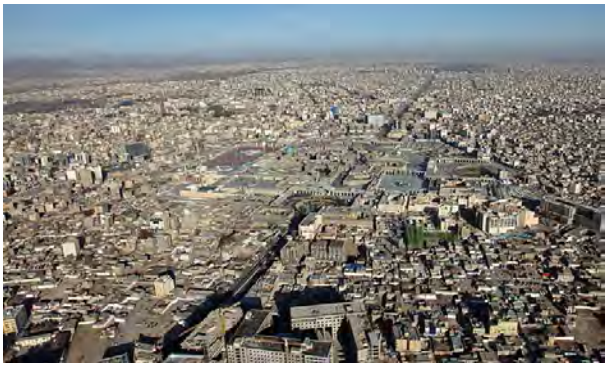

Fig. 4: cleared parcels, new buildings and construction efforts in Samen District (Mashhad Municipality, 2015)

Table 3. The contemporary large-scale redevelopment projects in Samen District

Large-scale redevelopment Project	Governance & Funding	Main plan's approach	Policies and tools
Renewal Plan of surrounding of shrine (Borbor, n.d.)	Up-down decision-making; Public fund	destruction and redevelopment; Symbolic commercial complex around the shrine; Definition of physical and altitude privacy around the shrine.	Authoritarian property acquisition; Replacement of the residents and business to a new Bazar;
After Islamic revolution After Islamic revolution	Up-down decision-making; Public fund	Extension of Shrine complex; Roadway underpass under the shrine's complex Transportation improvement.	Using the existed open spaces;
Renewal and redevelopment plan of surrounding of shrine (TASH consultant firm & Urban Development & Revitalization Corporation 1996, reviewed in 1999)	Up-down decision-making; Public-private partnership	destruction and redevelopment despite claiming a shift from Renewal to Rehabilitation Approach; Focusing on improvement of transportation and physical form.	. Convertor ring's design; determination of direct & indirect intervention zones; Introduction of investment packages in investment opportunities' exhibitions; Promotion codes, discount rules and installment facilities; consulting services for redevelopment and partnership; Partnership through the attraction of private investors, publishing project's stocks and shareholder methods; Provision of nonprofit projects like roads. Creation of Energy Tunnel as integrated infrastructure development

RESULTS AND DISCUSSION

The results show that many issues have been forgotten in Samen redevelopment project while the project was approved when environmentally sustainable development and participatory approach were among the main urban development principles of many cities of the world. In fact, these issues were neglected in the shadow of public-private partnership, encouraging private investment, and physical upgrading.

Regarding the economic aspect (Table 2), the first criteria relates to the redevelopment progress in projected cost and timeline. While Samen redevelopment was supposed to be finished in 2018, its physical progress is about 50% (IRNA, 2015) after 16 years (the redevelopment plan was approved and started in 1999). The slow progress is the result of challenging land acquisition, lack of financial resources and private investors (Ec1). Thus, the numerous vacant lots and the slow progress of redevelopment program show the inadequacy of development incentives. In fact, only 35 % of the total budget spent on the redevelopment project (62000 billion Rials), has provided by private investment (Farsnews, 2014). So the redevelopment's policies have not succeeded in sustainable fundraising (Ec2).

In addition, reviewing the related reports indicates that the constant solicit for government grant and financial credit (IRNA, 2014; Farsnews, 2014) (Ec3).

In general, a sustainable development is able to meet the preliminary and secondary consequences while the inability in provision of required public services and infrastructures in Samen district could indicate the failure of the redevelopment project (IRNA, 2014). In fact, the redevelopment program shaped through the zero financial balance, could not deal with the reconstruction, infrastructure and service provision costs. For example, although some low-income housing and hostels have been constructed, those were not enough to mitigate the negative effects of the large displacement of local residents and businessmen (Ec4). Also, because Mashhad municipality is financially independent from the government and faces with lack of sustainable financial resources, building permits fee is a critical resource for the organization. Thus, higher density and commercial use mean higher income for the municipality. In fact, the large-scale and expensive redevelopment projects in Samen were justified by the anticipated income increase and their benefits for the whole city. But, while the plan and investment packages create numerous development opportunities for investors, the number of building permits issued in the district is significantly less than the number in the city (less than 1% during 2007-2011 according to the statistics from Statistic Center of Iran and the city municipality). Thus, the project has been unable to bring income for the city (Ec5).

In addition, the megaprojects usually are considered as tools for improving the level of the city and making it competitive. In general, Mashhad and Samen district have been attractive places for investors due to their high economic potentials. The redevelopment plan was supposed to increase the potential and attract more investors but the current situation shows a different result. In other words, while some luxurious hotels and malls have been constructed in the district, many of the units are empty and have no applicant (ISNA, 2015; Jamejamonline, 2015). In addition the provided facilities in the district could not ensure the quality of visit and life (Ec6).

A sustainable economic view insists on the improvement of culture-led and innovative industries in cities while low attention has paid to the culture-led regeneration and innovative industries in Samen redevelopment program (Ec7).

Regarding the environmental and physical aspect, nearly all criteria show the Samen redevelopment program unsustainable. For example, extensive construction works, the displacement of dust, the land lots left vacant and dug in the district have bothered many residents (Alinezad, 2012) (En1). Also, the plan includes extensive destruction of buildings and urban spaces (En2).

In addition, several parks, green space areas and Baghrah[2] have been planned that can improve the green space per capita (from about 0.5 m2 per capita to 8 m2 per capita) in the district. The efforts lead to the increase of the green space per capita to 1.96 m2 in 2011 (according to the statics from Static Center of Iran). However, the accessible green spaces serving as open spaces have not been built yet (En3). Also, there are not strong policies to encourage and support environmentally-friendly buildings (En4).

On the other hand, the plan looking for modernization and motorized transportation and low attention was given to public transit development. Currently, many sidewalks have had problems due to the construction works but the walkability is supposed to be improved through the realization of radial green passages. Also, widening the streets has extensively been offered in the plan while, in general, the policy is not an effective sustainable solutions (En5). In fact, public transit development is not among the priorities of the project as well as widening the streets and the construction of new ones (En6).

In addition, while the plan proposes connected urban spaces and an organized urban form, many vacant land lots, tall and dense buildings adjacent to small and old ones have been emerged(En7).

According to the social dimension of sustainability, the social considerations have been very weak and participation was limited to financial participation. In fact, temporary and permanent exhibitions were held to advertise related investment opportunities as well as investment packages. Also, consulting services have been provided by urban management. However, it could be argued that the level of the residents trust to the municipality and the redevelopment plan has been decreased and many residents prefer leaving the district (So1).

In fact, public participation has been only considered in this plan as financial partnership (Asgharpour Masule & Behravan, 2010, 46). And a few efforts was done in connection with stakeholder engagement and public participation during the decision-making process (So2).

The population of the district has decreased from about 50000 in 1993 to about 16000 in 2014 (Farsnews, 2014). The land lots have been acquired by purchase or replacement method (220 units) (Kianpour, 2015) or participation bonds and shareholder method (So3). According to the statistics (official published statistics and Samen municipality (2015)), about 5000 lots (37%) have been released and additional 3000 lots (about 60%) are required to be released. Moreover, low attention was given to the conservation potentials (So4).

Also, extensive displacement along with the destruction of valuable social capital in the old and historical neighborhoods of Mashhad are the negative consequences of the redevelopment program. Many residents lost their sense of obligation due to the identity loss and destruction of urban texture and preferred to leave the district (So5). Some affordable accommodations and housing have been recently added to the redevelopment program (78 affordable accommodations financed by private and public investments (Farsnews, 2014; Mashhad Municipality, 2015) (So6). In addition, the proposed urban spaces and green passages have not been built yet and their realization depends on the attraction of further financial credit (So7).

CONCLUSION

Large-scale development experiences have been always

controversial issues due to their scale, large numbers of direct and indirect stakeholders, preliminary and secondary consequences, unpredicted circumstances, and high costs. Urban development approaches have tried to mitigate and solve the related risk and negative impacts of the projects and increase their public benefits.

Although large-scale redevelopment projects in Samen District look for competitiveness, place promotion and public-private partnership like similar global efforts, they have not been successful in relation to public participation, stakeholder engagement, environmentally sustainable development, creation of tourist attraction, attraction of private investors, and provision of required infrastructure and facilities to improve the district level in international and regional levels.

Scholars have emphasized on public participation and stakeholder engagement, creation of agreements between developers, municipalities and communities, adoption of regulations related to environment protection, offering incentives to encourage sustainable developments, improvement of project management and risk management as solutions, the issues which have been ignored in Samen redevelopment program.

Regarding the economic sustainability, despite the diverse financing methods applied in Samen redevelopment program, the urban management solicits for government grant. In fact, government grants and public funds are necessary somewhat in large-scale redevelopments to ensure the provision of public benefits and non-profitable services and infrastructure. In addition, urban governance, legal and management structure in progressive and democratic communities support neoliberalism principles like privatization and competitiveness. But in Iran, the required infrastructures for neoliberalism like deregulation and agencification have not been realized yet and in some cases only the scale of government intervention has changed from national governments to local governments. The deregulation and agencification are the required infrastructures to encourage and support private investments and to realize public-private partnership in large-scale developments.

In fact, development policies focusing on the property ownership, agglomeration of the land lots and issuance of building properties with profitable land uses (like accommodation and commercial) neglect the capacity and resiliency of urban districts and real demands of existed communities. As mentioned earlier, the district currently facing with serious challenges including vacant and unused land lots, the fragmentation of urban texture, the destruction of old buildings and urban spaces, loss of social capital, identity and displacement of local residents, failure in provision of high-quality services for pilgrims and residents, heavy traffic, environmental pollution, social unsafety and the increase of crime. This paper showed the unsustainability and inefficiency of current approaches and policies in Samen redevelopment program. Strong public participation in decision-making, stakeholder management in new development efforts, promotion of social capital, encouraging environmentally friendly developments, culture-led regeneration are suggested in order to reach sustainable solutions.

Endnotes

1. The Eight Imam for Shia (the second largest denomination of Islam)

2. Pedestrian parkway

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