



Analysis of land readjustment (LR) methods used in Joibareh, Iran

Hossein Zabihi¹ and Sohaila Hamidzadeh Khiavy^{2,*}

¹Architecture and Urban Planning, Department of Art and Architecture, Science and Research Branch, Islamic Azad University, Tehran, Iran

²Department of Art and Architecture, Science and Research Branch, Islamic Azad University, Tehran, Iran
sohailahamidzadeh@yahoo.com*

Abstract

This research attempts to use participative approach in development planning and its effects in Joibareh, in Isfahan province of Iran. Joibareh's participatory housing project is one of the positive approaches to facilitate planned development through sufficient supply of serviced plans for housing. This paper evaluates overall implementation of land repotting project in Joibareh. Concept of land readjustment method, urban land development and implementation of housing participatory Joibareh project are introduced and finally the paper is concluded by making recommendations to improve the future works in order to achieve the urban planning objectives In Iran. The result show that public participation in Joibareh participatory housing project provides some ways that individuals and owners can participate in the content of transferring their lands, even though it is limited, and participation of the people and cost and benefits are not defined.

Keywords: Land readjustment, Participatory Housing, Joibareh, Iran.

Introduction Land readjustment is a method whereby the ownership of scattered and irregular plans is pooled, roads and main infrastructure are built, and then the land is subdivided into urban plans. Landowners must contribute a portion of their previous land holding to provide space for roads, parks and other public space for reserve land. The reserve land is sold at the end of the project to pay the costs of planning, administration and construction. The attractiveness of the method for landowners is based on the fact that substantial increases in the value of land may be achieved by the process. So that the value of the personal land holding can be greatly increased, even though the remaining area is small. The attraction for planning authorities is this that projects provides land for public facilities, rationalize patterns of property division, and build needed urban infrastructure (Sorensen, 2000:52).

There is no agreement among planners and professionals about the contribution of community participation in improving the lifestyle of people, especially the poor and disadvantaged people. Some completely dismiss its value altogether, while others believe that it is the 'magic bullet', that will ensure improvements especially in the context of poverty alleviation.

Despite this lack of agreement, community participation has continued to be promoted as a key to development. Although advocacy for participation waxes and wanes, today, it is once again seen by many governments, the United Nations agencies and non-governmental organizations (NGOs), as critical to program planning and poverty alleviation (World Bank, 1996).

Community participation has been a constant theme in development dialogues for the past 50 years. In the 1960s and 1970s, it became central to development

projects as a means to seek sustainability and equity, particularly for the poor (World Bank, 1996).

The World Bank's reasons for community participation are:

- Local people who have a great amount of experience and insight into what works, what does not work and why.
- Involving local people in planning projects can increase their commitment to the project.
- Involving local people can assist them to develop technical and managerial skills and thereby increase their opportunities for employment.
- Involving local people help to increase the resources available for the program.
- Involving local people is a way to bring about 'social learning' for both planners and beneficiaries. 'Social learning' means

That development of partnerships between professionals and local people, in any group learns from the other (World Bank, 1966).

Some arguments for including participation in health and disability programs are (Sally, 2011): People know what tasks are for them and which professionals they need to learn from people; People make contributions of resources (money, materials, Labor) for these programs; People become committed to activities that they have helped develop; People can develop skills, knowledge and experience that will aid them in their future works.

Problem view

Land readjustment (LR) drew the attention of many Asian and European nations, it can be referred to Kukakuseiri in Japan, land pooling in Nepal, Land repotting in Austria, Baulundumlegung in Germany and land consolidation in Taiwan, etc (Carolina, 2005).

Land pooling is a technique for managing and financing urban land development when a group of neighboring landowners on an urban fringe area

combine in a partnership for the unified planning, servicing and subdivision of their land with the project costs being recovered by the sale of some of the building plans from the project and with the remaining plans being distributed to the landowners in a proportional manner (Archer, 1994).

As it is a self- financing scheme, the project does not depend on the government budget. The government does not have to spend its scarce resources on streets, open spaces and other infrastructures (Karki, 2004:68). Normally, a public authority, municipality or landowner's co- operatives assemble land with the approval and co- operation of the landowners and offer all public services and finances the cost of operation by increase in land value resulting from the new structures (ESCAP, 2000).

LR is a technique used for both the development of new areas and the reorganization of the structured areas in urban regions (Larsson, 1997). Conditions for this efficient application of the LR Method can be considered under seven headings including, cost recovery, sharing of the project benefits and costs, including of infrastructure constructions and costs of LR process, conditions arising in terms of planning and public participation, number of technical personnel and management and quality of cadastral maps (Turk, 2007:54-57).

Urban land development in Iran

The LR method cannot be applied in Iran despite a long background of urban land management and lands used planning for urban development and redevelopment to provide and supply of serviced plans. On the contrary, the urban growth rate is high. In 1956, there were only 186 municipalities which accommodated 31.4 % of the total national population or 6 million people. Today, the total number of municipalities has reached 1016 accommodating 68 % of the total national population, or 48/2 million people (www.amar.org.ir).

All this is happening through the rapid conversion of suburbs lands into urban use and forget of urban inner area. Most of the land for housing is still being subdivided by inheritance and become small and smaller without any urban infrastructure. More importantly, in 2011 the total area of urban distressed areas has reached 70,000 hectares at 87 big cities in Iran.

More importantly, the government budget is not enough to cover the overall low quality and the areas plans demand and possession of the lands in district of urban revitalization projects lengthens the implementation duration in Iran because of delay in land transfer by people by the aim of obtain higher percentage (Nourozi, 2008). For example, the initial assessment for implementing the first phase of the project will be about 25 million dollars with at least 40% of the budget allocated for the possession of the necessary land in four city centers conservation and restoration projects in Esfahan (Ahmadi, 2008:114).

While LR method has been successful in most of the countries, there is no defined legal structure for LR in Iran. In the first conference on regeneration and revitalization of urban distressed area (2008), the advantages and manner of usage were emphasized by experts and the experiences of other countries were expressed. But generally there was a little effect on execution discipline and decision making.

From residents' participation in urban revitalization plans view point in Iran, it is assumed that these projects are conducted as concentrated plans. In the best situation, the people are participated by selling participation bonds while the memory and feeling of belongs of the residences of these neighborhoods can play an important role in manifestation of these projects (Andalib, 2007; Andalib, 2008).

According to the complex problem of the rights and ownership and necessity of the participation of the people in selection of their residency place, direct interference of the people in decision making, investment, management and exploitation of the space is necessary in urban revitalization in order to feel belongings and dependency (Maleki, 2004:26). In other words, special needs of the residents are considered in order to determine goals and evaluation of the conversion (Anderson *et al.*, 2007). So, the necessity of the changes of methods and styles of implementation is clarified. So that urban revitalization will depend on using financial and human capital (Green, 2000).

Some housing and construction corporation use this experience based on current legal structure and apply it to Joibareh participatory housing in Esfahan. In this article, the concept of the LR and incidents and its positive and negative aspects are defined in order to specify shortages and needs.

Implementation of (LR) methods

Situation of the neighborhood and feasibility study

According to the historic ESFAHAN master plan, during the last decade besides plenty of conservation and restoration projects at least four city centers have been renovated: JAMALEH centre, JOIBAREH which partially belongs to JOISH, the Sangtrashan Passage in the heart of the Christian quarter and the POSHTE MASJED alley in the east part of the current project. The inhabitants of these districts, except those of the Christian quarter are low-income families, and most of them are migrants. Although the façades of these centers and the street pavements have been renovated, and the city infrastructure has been equipped with electricity and telephone cabling, gas, water and sewage piping, because of the bad quality of materials used they will need continual repairs (Ahmadi, 2008:110). According to the article of 166 of the third program of socio-economical and cultural law of Iran Islamic Republic approved in 2000 based on allocation of the credit for the historical fabric the historical and cultural organization of the Esfahan Joibareh was begun in 2003 (Fig.1 & 2).

Fig.1. The Place of Joibare Neighborhoods

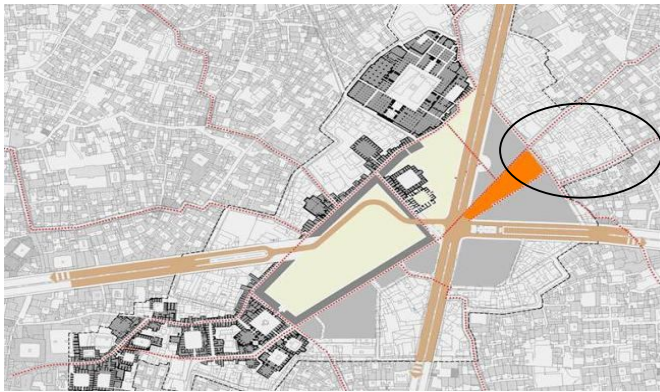


Fig.2. The schematic 3D form of joibare in Isfahan



A general survey on these four sites indicates that when the occupants have a higher level of culture and motivation, they pay more attention and cooperate but in other cases, while they benefit from renovations managed by the public sector, which have added value to their properties, they expect the municipality or other organizations to take care of all the issues (Ahmadi, 2008:110).

Participatory housing plan has been conducted in some part of this neighborhood that it is called Mahigiran block in 2009. The project will be conducted in 1.8 hectare region. It should be pointed out that Joibare neighborhood as "clear district or clear boundary establishes cluster of street and social service area" (Kallus, 2006). It can be addressed that a neighborhood base action in difference project based in block and small than it has advantages like preservation of local identity, prevention of development abnormalities in city, no concentrated implementation and participatory management (Andalib, 2008). This area was selected for the reasons shown in feasibility study of implementation process of the plan are: 1. Organization and regeneration of the of Joibareh neighborhood by central region development and housing corporation because of the positive subjectivity of the residents of the performance of this firm and positive socio-economical and cultural effects of projects conducted in this quarter. 2. Distressed

area from structural and socio-economical perspective like non proportionate passages, access to different parts, irregular shape of the sections and undefined ownership condition and registration of the plots. 3. Limitation of the historical monuments in the selected area.

The aim of the implementation of the Joibareh participatory housing plan

The implementation of the participatory housing plan is the main goal of the regeneration and revitalization of the urban distressed area and development of the housing plan. But the tendency towards solving problems and executive issues by new method, land readjustment is observed. So there are differences between this method and the traditional methods. Study and identification of the executive issues and difficulties of this method are necessary that they are followed in this pattern and it may be lead to enactment of the rules, polices and propositions related to LR proportionate with conditions like situation of the Mahigiran block in the Joibareh neighborhood.

This project has been tried to offer the best interference strategy by providing structure for participation of the people in all revitalization trends (Omrani, 2008:68). According to documents this project has two main goals:

a) Revitalization and preservation of the structural and social fabric by offering Joibareh participatory housing pattern involving: i. Preservation of morphology and grading of the fabric and shaping plots in the mentioned district, ii. Improvement of population density and coordination of the services and residential complex per capita in the mentioned district, iii. Proposing general strategy and enactment of the rules for revitalization in the central fabric by participation of the residents, iv. Specifying general regulations and structure for designing in the central fabrics in cites, v. Improvement of the current passing network according to upstream trend and conformed with today needs plans, vi. Observing justice and belong to value added to residents and just distribution of the costs and income of plan implementation.

b) Management goals in relation with objectives by people in the central fabric (Omrani, 2008:70-72).

Implementation system

Executors of the Joibareh housing participatory plan are divided into two groups: Group 1: public execution system involves housing and urban development ministry and Iran urban development and improvement specialized corporation and Esfahan municipality. Group 2: central region development and housing corporation that it is specialist and it is representative of Esfahan housing and construction corporation and it involves with implementation of the project and owners because today local organization participation is emphasized in succeed of these programs (Porter 1997), those are loop between central government and private sector (Fig.3).



Fig.3. Institutional arrangements of Housing participatory joibareh project

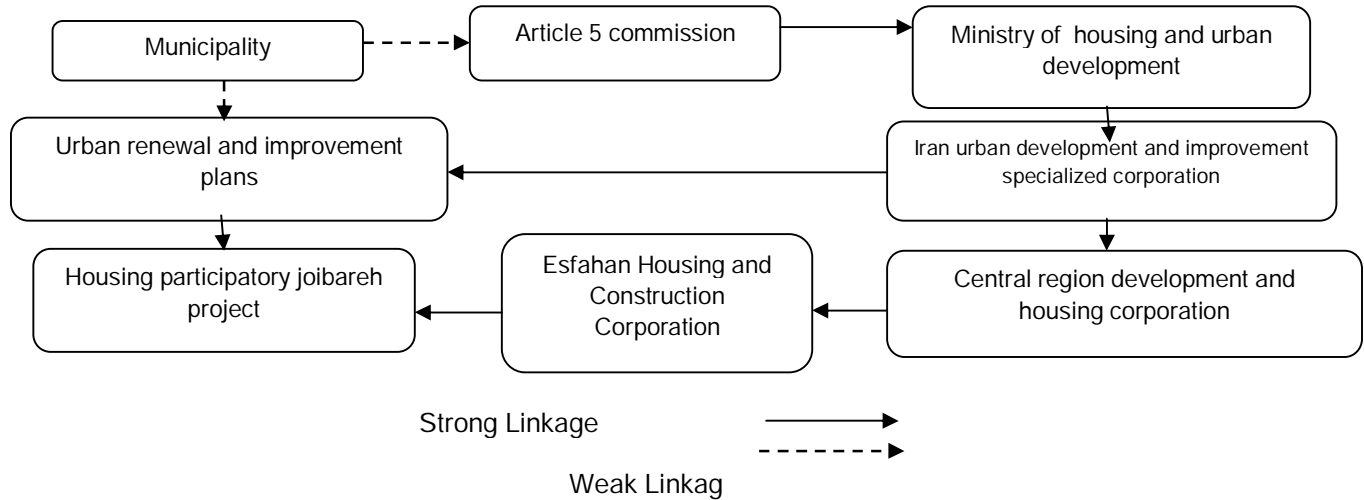


Fig.4. Land use and border plots before and after Joibareh project



Source: Housing and construction corporation Estahan, 2011

Implementation and process of the project

Draft and primary plan was prepared by the central region housing and civil firm. In this draft, public passages, green space usage and services are explained for residents (Fig. 4). In general, plan details of the implementation involving utilization districts, area, scope and superstructure and details of the proposed plan and new usage are specified. The proposed map by

new usage and area and scope is prepared. In table, the plan, area and distribution of the separated parts are explained. In this district there are 72 registries plagues that two plots belong to pious. The places such as foundation, mosque and electricity post are not changed (Fig.5 & 6). Joibareh revitalization pattern has been conducted in 29 stages. An outline is given in Fig.7.

Fig.5. Land use breakdown before Joibareh project

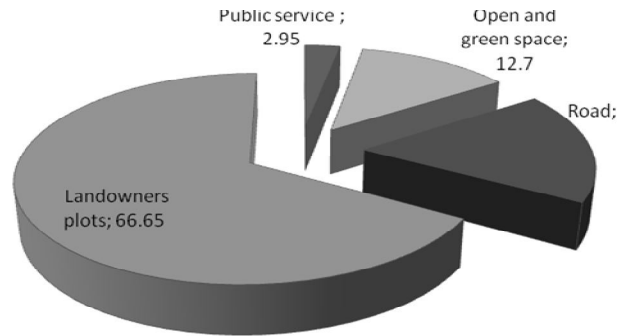
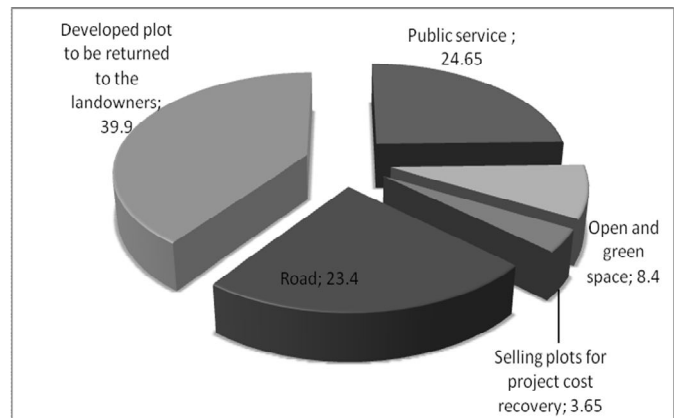
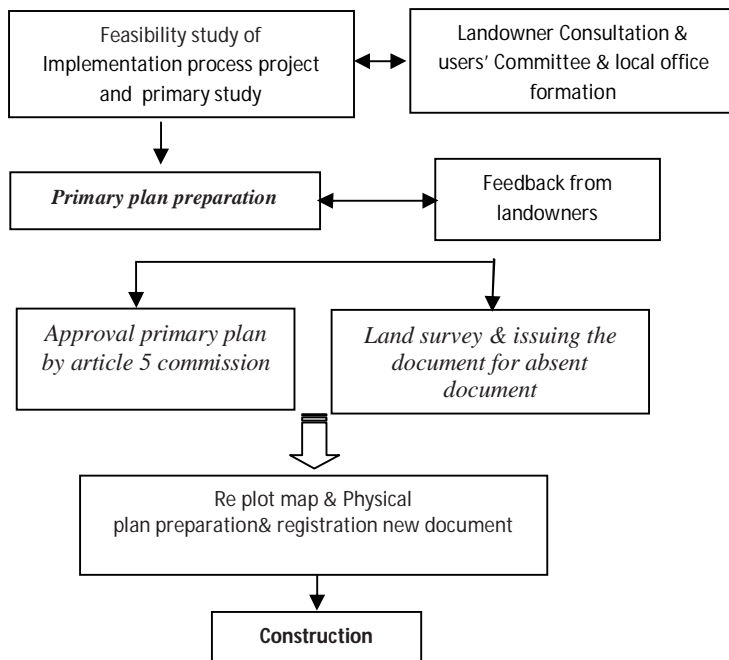


Fig.6. Land use breakdown after Joibare project



Source: Housing and construction corporation Estahan, 2011 and drawing by authors

Fig. 7. Land readjustment process in Joibareh housing participatory project



Source: Housing and construction corporation

Esfahan, 2011 and drawing by authors

Distressed area owner's collaboration corporation

After fixation of the documents of LR district plate and agreement in scope of the new ownership, the project was signed based on LR plan (Housing and Construction Corporation as representative and executors of the project). It is necessary to establish the distressed area owner's collaboration for execution and beginning of the construction of the participatory housing project. In order to begin LR project establishment of the collaboration and membership, selection of the managing director by vote of people is necessary. This process is conducted in scope of cooperative formation regulation structure. In this neighborhood, 3 persons are selected as people representative including one as representative of the municipality and another from the central region development and housing corporation.

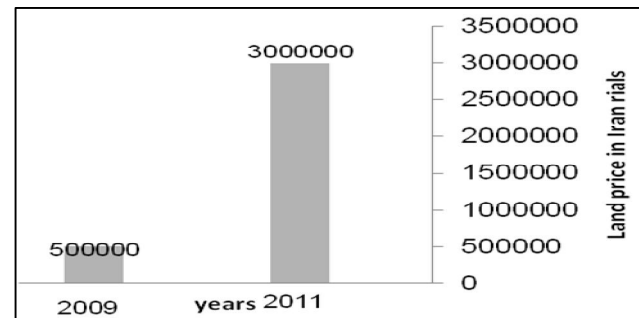
Public participation in Joibareh participatory housing plan

Public participation in Joibareh participatory housing plan was begun by announcing decision of the corporation and informing of the owners and residences of the neighborhood. Then the first meeting of the owners and residences was held by attendance of 25 individuals. This meeting was announced through official invitation, using banners for participation in the parish mosque and at the primary plan of the passages and service space. Some individuals opposed to this plan at first but during group meetings or individual meetings they were explained with the benefits of the plan.

Contemporary residence

Popular article
©Indian Society for Education and Environment (ISEE)

Fig.8. Land price before and after the project housing participate Joibareh



Source: Housing and construction corporation Esfahan, 2011 and drawing by authors

In Joibareh participatory housing pattern two propositions were offered related to contemporary residence: 1. Payment of 50 million Rials as mortgage of the residential complex by Housing and Construction Corporation. 2. Lease and mortgage by Housing and Construction Corporation for temporary residence. According to the viewpoints, the first method was accepted by the owners.

Contribution percentage

During LR, the maximum and the minimum land share rate and contribution percentage have not been defined for public land use and some part of the land was transferred for public land use and saving lands based on the plan and damages has not been determined.

Satisfaction and participation of the owners are justified by land use public services and facilities and proper access and increase land price (value added result of urban development) (Fig.7).

It seems that the owners participate in the development cost and benefitted by appreciation of their higher land value. This project is in implementation stage and the profit and total cost of project will be determined and the difference of the cost is not defined and the manner of the division of the profit and cost will be specified.

Discussion and conclusion

It is necessary that Joibareh participatory housing project conformed to Iran legal system and it is defined according to urban planning discipline. The legal system and ownership of the lands are defined in this project and the executor of the project is recognized in Iran urban planning discipline. Following items are mentioned in this relation:

- The viewpoints and propositions of the residences and owners are necessary related to draft of the LR project and localization of the public land use.
- Considerable dimensions and area are necessarily based on divisions of the LR plans: they are divided into project based plans in urban block dimension and



plan based project in several blocks and neighborhood dimensions. So coordination with master plan and propositions & needs related to district is required.

- Public participation in Joibareh participatory housing project provide participation of individuals and the owners since content of the owners to transferring their lands is limited and participation of the people and their cost and benefits are not defined.
- There is no certain decision about contemporary residency of the owners and the lessee that they principle identity of the LR project.
- In most of the LR projects the land contribution percentage range for 10-45% public use is defined from the beginning of the project by law structure. But in this project, there is no defined legal structure. In some parts of the land, the area of land is reduced considerably and there is no arrangement in this case.
- At the final, compulsory land purchasing is the necessity to apply this project for public land use i.e., 23% total of area while it is not adopted with LR method.

References

1. Ahmadi F (2008) Iranian experiences of urban revitalization in historic districts, Balanced Urban revitalization for social cohesion and heritage conservation. In: UNESCO. Int. seminar, Tsinghua University. pp: 110-114.
2. Andalib A (2007) A new view on strategies and policies of rites on renovation in deteriorated urban areas. *Tehran City Renovation Organiz.* pp: 45.
3. Andalib A (2008) Notes on Renovation in Deteriorated Urban Areas. *Tehran City Renovation Organiz.* pp: 74-119.
4. Anderson G, Day K, Mcmillan T and Win D (2007) Remaking mini street: The impacts of urban revitalization on grime and pedestrian safety. *J. Planning Edu. & Res.* 26(3).
5. Archer RW (1994) Urban land consolidation for metropolitan Jakarta expansion, 1990-2010. *Habitat Int.* 18(4), 37-52.
6. Carolina A (2005) The role of land readjustment in Japan and its possibilities of application in Colombia. Hokkaido University. pp: 1-5.
7. ESCAP (2000) Municipal land management in Asia: A comparative study. pp: 1.
8. Green I, Nancy L and Ross C (2000) Planning urban revitalization and the inner city. Explorations of structural racism. *J. Planning Lit.* 14(3), 367-380.
9. Kallus R and Hubert LY (2006) What is a neighborhood? The structure and function of idea environment and planning. *B: planning & Design.* 27, 815-826.
10. Karki TK (2004) Implementation experiences of land pooling, projects in Kathmandu Valley. *Habitat Int.* 28, 71-84.
11. Larsson G (1997) Land readjustment a tool for urban development. *Habitat Int.* 21, 141-152.
12. Maleki G (2004) Engineering economic as a tool of design of motivation system for revitalization. *Tehran, Haft Shahr J.* 26, 15-16.
13. Norouzi SM (2008) A home Instead of a home plan: A new approach for acquisition of deteriorated urban areas. *Tehran City Renovation Organiz.* pp: 28.
14. Omrani A (2008) Revitalization of distressed area pattern in Joibareh. Mashhad, Iran. *1st Conf. Regeneration & Revitalization of Urban Distressed Areas.* 1, 65-73.
15. Participatory housing pattern project (2011) Housing and construction corporation Esfahan archives. *Unpublished.*
16. Porter M (1997) New strategies for inner city economic development. *Econom. Dev. Quarterly.* 11(1), 15-30.
17. Sally H (2001) CBR: a participatory strategy in Africa. In: Conf. on 'Community Based Rehabilitation as a Participatory Strategy in Africa. *Uganda Nat. Insti. Special Edu. (UNISE).* pp: 35.
18. Sorensen A (2000) Conflict, consensus or consent: Implications of Japanese land readjustment practice for developing countries. *Habitat Int.* 24, 51-73.
19. Turk SS (2007) An analysis on the efficient applicability of the land readjustment (LR) method in Turkey. *Habitat Int.* 31, 53-64.
20. World Bank (1996) Participation Sourcebook. Washington, D.C: The World Bank.