



Regeneration application in Bitlis city multi-storey housing construction

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ABSTRACT

Regeneration (Urban renewal) is one of the policies carried out in order to meet the housing needs in the cities, to rehabilitate the collapse areas or to improve the building areas at risk of disaster. The urban building stock can be increased by regenerating existing urban lands. With the regeneration, the socio-economic and physical aspects of the region differ with disadvantages such as the emergence of land rent, and it can be a method for housing needs. Urban renewal-regeneration has revealed effective and intensive construction in the city of Bitlis. With the application made after 2015, the building stock of the city has increased. In this study, the project-specific features of the multi-storey housing construction were determined by evaluating the urban renewal example implemented after 2015. The area where the disaster houses were built as a single storey with the masonry building technique was unearthed.

Introduction

“Regeneration”, which is defined as “creation of a new texture in destroyed, degraded and collapsed areas [1]” within the urban renewal strategies, is expressed as the meaning of urban renewal.

Perouse mentions at least four different positions of urban renewal in practice. According to this classification; a) Urban renewal in historical districts based on Law 5366 on the Renewal, Protection and Use of Worn Historical and Cultural Immovable Assets., b) Urban renewal for the rehabilitation of structures at risk of disaster, c) Urban renewal based on “demands to end the illegality of the urban fabric” for illegal housing areas, d) Urban renewal to create more profitable areas such as the deindustrialization - service sector [2]. The targets planned to be achieved in accordance with the objectives of the urban renewal are the economic targets based on physical/environmental improvement, aimed at creating employment, commercial areas, social targets for solving social problems, and cultural targets for preserving the historical/natural texture [3]. Urban renewal projects are implemented in order to meet the building needs by reorganizing the urban parcels in areas with disaster risk, due to the improvement of the statically insufficient housing texture and/or the insufficient building stock. Regeneration policies are implemented to improve environmental and housing conditions and to attract the population to certain areas [1]. With the Law of 5393 on Municipalities and Law of 6306 on Conversion of Areas with Disaster Risk, municipalities have also become more effective and authorized [4]. Urban renewal projects implemented to clean the designated area and then rebuild it have an important share in meeting the housing need in the city of Bitlis. Bitlis city center, which has historical and natural sites, is in a disadvantageous position for the housing requirement of the increasing population. In addition, topographic and climatic factors of the city; the areas within the advantageous areas of the city, which develops within the framework of the rough terrain and harsh rainy seasonal conditions, consist of single-storey and masonry structures. In order to reduce regional imbalances in the urbanization process, regional development policies should be implemented [5]. In the urbanization process of Bitlis, the area where the disaster houses are located among the new development areas is less comfortable in the general texture. For this reason, urban renewal can provide a relative balance between residential units. Along with this situation, with the multi-storey housing structuring becoming the dominant building culture throughout the country, the apartment-type multi-block and multi-storey housing structuring in

the city of Bitlis also gained speed. In urban renewal areas, housing development in the city continues as multi-storey housing construction with factors such as development in construction technologies, economy, and ease of production. In this study, the housing construction in the determined region was evaluated on the scale of settlement and building.

Material and Method

On-site observation and literature review were made. By using online maps and the parcel inquiry application of the general directorate of land registry and cadastre, the parcel information on which urban renewal applications are located was accessed. The plot information was examined by photographing the determined area. Hüsrevpaşa District, where urban renewal applications and mass housing applications are intense, has been determined as the study area. The region where single-storey houses built as disaster houses with masonry construction technique in the early 1980s are located is an urban renewal area. The houses in this region were demolished and the multi-storey houses built with the urban renewal were evaluated. It has been tried to reveal the characteristic situation at the settlement and the building scale.

Results and Discussion

In the district of Hüsrevpaşa, whose urban renewal continues (Figure, 1), the use of the block/plot at the settlement scale, the limiting elements of the settlement unit, the situation of being open/closed to the outside and the physical facilities are evaluated. The area numbered 675 block, 200 plot, selected as a sample in Hüsrevpaşa neighborhood, was shaped by combining six parcels (Table 1). Demolition of the single-storey residences on the island 675 started in 2015 (Table 1).



Figure 1. District of Hüsrevpaşa regeneration area [6]

Table 1. Number of block and plots [7]

| Block | Plot | Application | Control Approval | Destruction |
|-------|------|-------------|------------------|-------------|
| 675 | 174 | 12.10.2015 | 03.11.2015 | 10.11.2015 |
| 675 | 170 | 12.10.2015 | 03.11.2015 | 10.11.2015 |
| 675 | 173 | 12.10.2015 | 03.11.2015 | 10.11.2015 |
| 675 | 172 | 12.10.2015 | 03.11.2015 | 10.11.2015 |
| 675 | 179 | 13.10.2015 | 04.11.2015 | 10.11.2015 |
| 675 | 178 | 13.10.2015 | 03.11.2015 | 10.11.2015 |
| 675 | 177 | 13.10.2015 | 03.11.2015 | 10.11.2015 |
| 675 | 175 | 13.10.2015 | 03.11.2015 | 10.11.2015 |

When the characteristics at the settlement scale are evaluated, it is seen that the physical environment of the region has changed as well as the socio-cultural aspect of the region (Table 2). Settlement units, which were built as adjacent or separate before urban renewal, are on the middle or side plots on the island. It is separated from the road by the garden located at the front and/or rear entrances. The garden wall limits the owned area. However, it can be said that the adjacent arrangement of the houses or the lack of distance between the houses and the fact that the borders are below eye level are effective in the communication of the residents. In this case, it is possible to talk about the existence of street and neighborhood culture. With the merging of the parcels after the urban renewal, the housing units were built in the middle and side parcels in a separate order. The housing units are limited by the boundary wall and are closed to the outside. Six of the multi-storey residential units built on the

parcel border of the units are used as commercial areas. In the urban renewal application, the area between the parcels is planned as green area, but there is only parking facility within the borders of the units. When the characteristics at the building scale were evaluated, it was observed that the masonry housing units were built with the reinforced concrete construction technique after the renewal (Figure 2). Multi-storey residential structures built as two or three-block units are 5 floors and above. Each floor is generally planned as 3-4 flats. The old masonry plans, which are in the range of about 60-90 m², are between 120-170 m² in multi-storey houses. The residences are generally planned to have at least 4 rooms. The single-storey houses, which were shaped according to the building materials of the period, leave their place to multiple blocks in which different building materials are used.

Table 2. Characteristics before and after regeneration (urban renewal)

| | Before regeneration/urban renewal | After regeneration/urban renewal |
|------------------------------------|---|----------------------------------|
| Block/plot use case | At the edge/middle- Contiguous/split | At the edge/middle-split |
| Limiting Elements | Garden wall | Boundary wall |
| State of being open/closed outside | Closed | Closed |
| Physical facilities | Garden | Car park |
| Zoning status | Residential | Residential + Commercial |



Figure 2. Example of housing before and after regeneration [8]

Conclusion

Regeneration is one of the policies carried out to meet the need for housing in cities, to rehabilitate the depressed areas or to improve the building areas that are at risk of disaster. Urban building stock can be increased by the reproduction of existing urban lands. Regeneration with disadvantages such as the emergence of land rent, the socio-economic and physical aspect of the region also differentiates and can be a method for housing needs. Urban renewal-reproduction has revealed effective and intensive construction in the city of Bitlis. After 2015, the building stock of the city increased with the implementation. Projects that have a socio-economic effect on the change of the city should also be evaluated from a physical point of view. In practices that change the street-neighborhood culture, the fact that the buildings are closed to the outside and their physical facilities are limited contradicts the purpose of urban renewal. The work should be carried out by considering the environmental objectives of urban renewal, such as improving the comfort conditions in the infrastructure and residences and bringing the active green areas into compliance with the standards.

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