

A Model for Solving Informal Settlement Issues in Developing Countries

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SUMMARY

One of the basic urbanization problems in developing countries is illegal settlement. A slum is a house that especially build on public or private real estates illegally. In Turkey, these illegal settlements started with migration from urban to rural areas in 1950's. The main causes of the migration phenomenon are subdivision of agricultural lands caused by the current heritage system and lacking of urban public services (education, health, culture, etc.) in rural areas and job opportunities in urban areas. Today, 10% of buildings are slums in Turkey. These are mostly in industrialized cities and in the areas where accesibility is easy and public real estates are common. Because of the politic, economic and social reasons, taking down of these slums owned by low income persons is very difficult. On the other hand, because slums are not built according to building rules and 92% of Turkey's settlement areas are in seismic belt, instead of the protection of the slum pattern, developing of creative solutions is a necessity to solve this problem. In this paper, ideational-theoretical bases of the developed solutions will be identified. In this context, because most of the slums are in developing areas, these areas should be evaluated in a new planning approach. Instead of these slums that most of them are lacking of basic urban infrastructure and have single flat, multi flat apartments should be built. With the proposed approach, the right for owning a flat will be supplied to the slum owners in specific conditions in the newly constituted settlement areas. The actors of this mechanism are municipalities, land developers and slum owners. Such a system will provide that urban slums are transformed to modern urban settlements.

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1. INTRODUCTION

Slums are symptoms of immigration phenomenon. Immigration arised as a movement from rural to urban areas in the industrialization period. While this action realized long before in developed countries, it is still a continuing process in developing countries [Aydemir, 1999]. After the England industrial revolution, construction of the jerry buildings around the cities is as old as industrialization. Rapid urbanization is the situation in the countries which live developing period after the Second World War especially [Turcan, 1993]. The existence of the meaning of 'immigration' and 'slum' terms in every language is a proof that this is a global situation.

2. CONSTRUCTION OF SLUMS PROCESS IN TURKEY

In Turkey, urbanization accelerated in 1950's and still is in progress. Especially this date is the start point of the agricultural mechanization, highway transportation and industrialization of Turkey.

Immigrations have been directed to the cities regarded as 'attraction centres'. The basic causes of the immigration are the insured job, high salary, and the other facilities such as education, health, culture etc. in urban areas. Primary aim of the immigrants which immigrate to urban areas is having a guaranteed and permanent job and then having a shelter. However, because of the financial inefficiencies of the local authorities, the level and quality of the services has been low. Especially the lack of convenient dwelling areas has led to construction of the slums.

Slums have been built in form of jerry buildings especially in sub-urban areas and on government owned lands. A range of problems have been arised in these slum areas. These slums have not basic technical and social infrastructures and led to visual and physical contamination.

3. THE PROCESS OF FORMALIZING SLUMS

The construction of slum is a solution way of the slum residents who have not sufficient income at the beginning for dwelling. Because, dwelling is the first requirement to survive for the slum residents. However, afterwards, this aim has turned into getting land with speculative motive. One cause of this situation is that all increases in land value in urban areas could be owned by land owners [Dale and McLaughlin, 1999]. At the beginning spontaneously constructed slums with 'de facto' and 'instinctive' planning manner have been turned from buildings into districts. Namely, in addition to the physical dimension, the case have had social, economical and political dimensions. Because there is no land and dwelling policy to produce solution yet, authorities have produced two contrary policies in Turkey.

One of them is to destroy all of them. Because, these were constructed illegally. The other is formalization of these illegal settlements. Likewise, the political authority of Turkey has preferred the latter and the new law put into practice to formalize illegal settlements. According to this law;

- All illegal settlements constructed on the government lands before the law put into practice have been included.
- The slum residents will pay the value of the land respect to current market value in 4 years period of time with 12 equal instalments.
- It is not allowed to allocate more than 400m² for each slum.
- If the slum resident or the other people in the same family has a building or land in the same municipality boundary, they can not benefit from this law.
- Firstly 'title allocation document' had been given to each slum resident by local authorities and then 'title' was given for each slum by the governmental agency.

These titles have not a development right. That is to say, existing slums and its lands have been formalized. Social and technical infrastructures have been placed to the empty areas in the region. So, technical infrastructure and irregular building problems have been arised. This situation has effected the urban structure negatively.

3.1 How Slums Could be Integrated with Urban Areas?

Turned into the private property, slum areas were in developing areas of the city at first. But today, these areas are in city centers and the value of these lands has increased. So, there is a need for taking down of these unqualified structures and building of new ones.

Accordingly, there is need for new solutions to improve irregular buildings and insufficient infrastructures. Besides, there is also a need for providing urban settlement areas and meeting of dwelling demands in the concept of development right perspective. Therefore, firstly, sufficient and qualified buildings should be provided formalized slum residents and construction process should be developed.

Especially after the Marmara Earthquake in Turkey, in 1999, this issue has been discussed. In this paper, a theoretical proposal will be offered to transform the slum areas to contemporary settlement areas (Figure 1).

The followings are basic assumptions of this proposal:

- Slums are constructed in a low-qualified manner. Therefore, the transformation of the slums to modern and quakeproof buildings should be provided.
- Instead of leaving construction right to slum owner completely, this right should be shared with public authorities. In other words, slum owners should not be given all development right on building plot; instead, they should only be given a single flat.
- Building contractors, called as land developer, which works according to the general rule of 'giving flats to land owners for their landownership', a common way in Turkey,

should be included in this mechanism. Therefore, the fund needed for transformation of the slums into contemporary buildings can be provided.

- This method proposed to be implemented building block based rather than parcel based should be based on an urban transformation law.

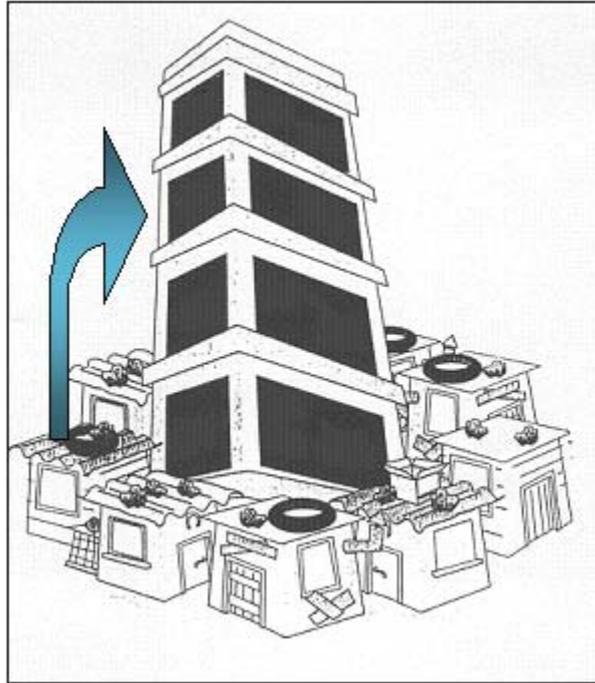
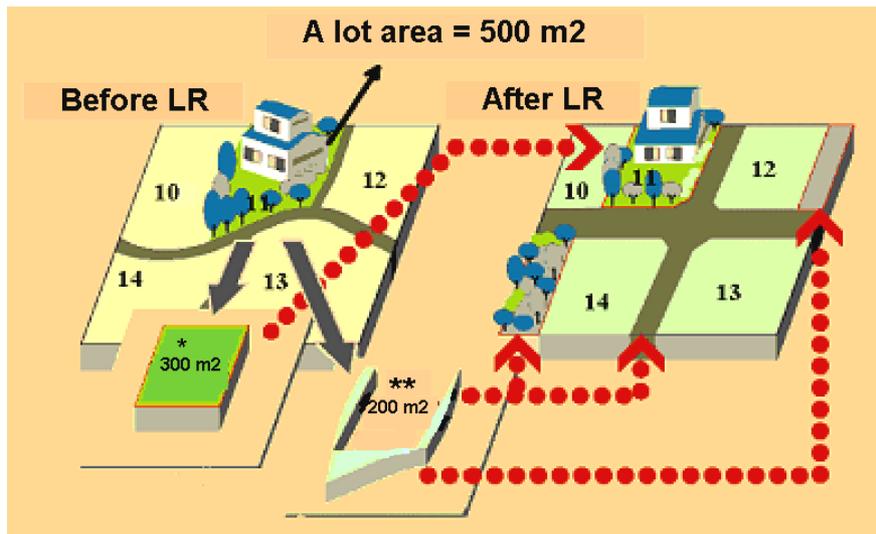


Figure 1: The animation of the proposed method

Slum region chosen for proposed method should provide urban growth and renovation period of this region. So, the nearest areas to the city center should be primary areas to be renewed.

Firstly, development plan for renovation area should be prepared. In this plan, per flat building plot cost is considerably decreased in respect to one-two storey slums. After that, on the slum area plots in the boundaries of urban transformation plan, it should be perform a 'Land Readjustment' implementation (Figure 2). Thus, land deduction process reaching 40 percentage on the plots in the area is performed to provide free areas for roads, green areas, recreation areas, children's parks, car parks, police stations, temples, and school areas [Yomralioglu, 1993]. Then, plots should be divided into shares in respect of building blocks. After that, in every building block, municipality should have building contractors produced buildings according to the rule of giving flats to owners, for instance, with a maximum contractor's share of 60%. Provided that constructed buildings are not larger than 120 m², only one independent flat should be given to the each slum resident. 60% of the constructed buildings should be given to contractor and the other part should be given to public administration. Public authority should allocate some part of this area in freely to slum owners. In addition, the other parts should be sold to the low income people with convenient credit system.



(*) lot after land readjustment (replot)
 (**) the contributed portion of land

Figure 2: General mechanism of land readjustment (LR) [Uzun and Tudes, 2001]

3.2 Benefits of the Method

Followings are some of the benefits of this method:

- Thanks to proposed method, there will be no need for expropriation by local authorities.
- As a result of planning and land readjustment, each slum owner will have more standardized and quakeproof buildings.
- Renovation of the non-quakeproof building stock will be provided.
- With transforming of the slums to modern buildings, these areas will have an aesthetic view.
- The issues like un-planned land use and transforming of agricultural lands to urban lands will be solved.
- Slum-based environmental issues (contamination of land, water and water basin, etc.) will be improved.
- Newly constructed urban-transformation areas will support slum owners to be integrated with city life.

4. CONCLUSION

One of the most important problems in developing countries is the integration of the slum areas with city centers and formalizing of the property rights. In this paper, a new model was introduced. Respect to this method, slums will be evacuated and only one flat will be given to the each slum owner in this new settlement pattern. This method will not introduce a new financial charge to local authorities and also will provide opportunity for low-income society units to have dwellings with low-cost in these areas. Needed further developing, this method is advised to apply to the countries having slum issues.

REFERENCES

- Aydemir, S., 1999, Kentsel Alanların Planlanması ve Tasarımı, KTU Yayını, Trabzon.
- Dale, P., and McLaughlin, J., 1999, Land Administration, pp. 26-35, Oxford University Press.
- Turcan, E., 1993, Büyük Kentlerdeki Toprak Rantinin İktisadi-Siyasi Yapıya Yansıması, 4. Harita Kurultayı, Sayfa: 388-399, Ankara.
- Uzun, B., and Tudes, T., A New Method of a More Just Land Property Distribution for Large Construction Projects, Fourth International Symposium "Turkish-German Joint Geodetic Days", Volume 1, pp. 409-413, Berlin, Germany.
- Yomralıoğlu, T., 1993, A Nominal Asset Value-Based Approach for Land Readjustment and Its Implementation Using Geographical Information Systems, PhD Thesis, Department of Surveying, University of Newcastle upon Tyne, England.

BIOGRAPHICAL NOTES

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