# Seeking Methods for Determining Sustainable Strategies in Urban Regeneration Application

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#### SUMMARY

Development plans have been producing for regeneration the urban environment in Turkey. Indeed, developments plans are planning which mean is that distribute same amount of development rights and offer quantitative solutions. For this reason, the planning is needed that meets the needs of city's economic, social, cultural, physical and managerial rather than quantitative solutions. Today, urban regeneration application is one of the important tools for the re-production varying urban spaces.

Urban regeneration application affects the development of the city in the process of reproduction. The failures of the applications do not just affect urban development but also affect living, rights and expectations. This situation draws attention to the issue that urban regeneration projects are not only the physical planning process but also have social process. We can generalize decision makers in urban regeneration projects such as; planners, residents, private sector, local government, civil society organizations, ministers etc. Decision makers' decisions need to shape urban regeneration and constitute most reliable results for reproduction urban space. However, when the projects are examined in Turkey, it is visible that planning approach which is include prior adopted standard, have not legal and administrative base process at all. All projects in this context are actually independent of each others. In addition, applications are politics and have the qualifications that increase their payoffs for local government and other decision makers involved in implementing.

This situation is requiring a decision making mechanism which maximize profits for each of decision makers and sustainable production of urban space will be provide. For the creation of such a mechanism as a priority urban regeneration area requires to analyze with all sizes. Determining the long-term policies, set priorities strategies and strategies which provide the most advantage for each decision makers should be selected after the creation of mechanism. In this study, initially, production process in the urban regeneration applications, policies and a multi-purpose strategic planning principle are going to put forward, then method pursuits will be examined for the selection of appropriate strategy for decision makers.

#### 1. INTRODUCTION

Land policies, land management and data system which creates related data infrastructure are the important devices of spatial and local spatial planning. While making spatial planning land policies should be considered in spatial frame. Creating socio economical balance between the areas is of a great importance in regional planning. Also, it is important to have areas which will protect environmental qualification and develop it in regional planning. There is a need for a sustainable local planning for a sustainable regional planning.

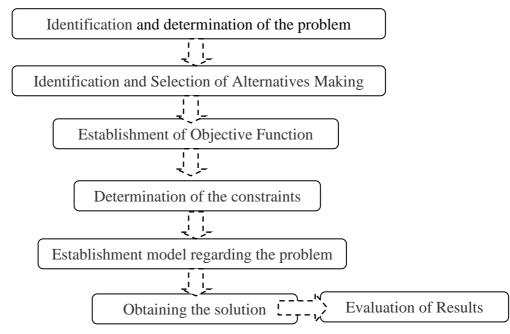
Urban regeneration applications, is a kind of device for solving problems in spatial planning applications within the scope of land management. In Turkey, physical renovation in cadastral bases, updating land registries, increasing employment in economical recovery areas, sectoral arrangement of land usage, changing aim and efficiency of construction plans, physical regeneration, sustainable development, protection and sustaining of socio-cultural and historic fabric provide the increase of environmental quality.

In some urban regeneration applications in Turkey, common interest strategies can not be obtained for participating groups. This situation causes failure in applications. Determination of common strategies for equal income for all participating groups is a decision analysis process.

In this study, it is aimed to require a decision making model which will bring out equal interest for all participating groups and so acquiring sustainable applications.

# 2. INCREASING THE CAPACITY OF DECISION MAKING IN URBAN REGENERATION

Decision making, is the process of choosing the most proper one or several for the aim or aims within all existing alternatives (Filiz, 2004). When we study the literature, general structure of resemblances between decision making steps which differs one another in some points are as in below;



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#### 3. DETERMINATION OF DECISION ANALYSIS PROCESS AND STRATEGIES IN URBAN REGENERATION APPLICATIONS IN TURKEY

In Turkey, urban regeneration applications consist of two steps as planning and application. Planning process; declaring regeneration areas, expounding to registry for all process within regeneration area, determination of ownership structure of the area, social structure analysis for specifically to field and determination of financial model, application process; establishment of real estate determination committee, value determination of real estates, reach an agreement with estate holders and application of socialization by authorized management if an agreement is not reached, preparation of areas infrastructure, construction, landscaping and architecture plans, revision or changes in upper stage plans and application of the plan to area.

In order to be able to define decision analysis process in urban regeneration applications in Turkey, firstly it is necessary to determine strategies which effect urban regeneration. It is about determination of problems in area which is declared as urban regeneration and producing solution offers about these problems and strategies about application area.

We can sum up strategies which will be created for urban regeneration application areas;

- 1. Strategies about economical structure related with real estates.
- 2. Spatial planning strategy
- 3. Environmental structure strategy
- 4. Social structure strategy
- 5. Legal and management strategies of authority

### **3.1** Strategies about economical structure related with real estates.

In Turkey, urban regeneration applications which are device for reproduction of urban real estate, is effected by private sector, public sector, and other speculative inclinations and this situation causes an increase in the value of real estate. These regulations are the necessity of provision of betterment, providing public's using its own sources primarily, title deed fees for speculative inclinations and application of taxing and creating a financial model.

Regulations about the public interest transfer of value increase should be done administratively. By transfer of value increase for public interest, financial source for second and 3third steps of the urban regeneration, creation of new settlement areas, powering social sources, business development and creating employment, creation of social and cultural outfit areas can be provided.

# **3.2 Spatial Planning Strategy and Problems**

Creation of spatial planning strategy in urban regeneration applications, determination of spatial problems in area which is declared as urban regeneration area and producing solution alternatives for these is a really important process.

Spatial planning strategies in urban regeneration applications should be assessed in three steps. As stated in Figure ... in the first step it is necessary to determining expectations about the area which urban regeneration application will be done. It is necessary to put expectations

in first step alternatives about the plan and social, economical, planning and designing, environmental and management targets. In the second step, existing situation analysis about the area should be done and synthesis about the social structure should be presented. For this reason, in this step, survey, city councils etc, methods and social structure need to be analyzed. It is also necessary to make population projection calculations and other calculations need to be done along with measuring studies. In the 3rd step, planning and application of plan to the area and revision of the in plans upper scale revision should be expressed.

#### **3.3 Environmental Structure Strategy and Problems**

Environmental structure strategy should be assessed by structure risk and livability. For Turkey, structurally risky earthquake and other unlicensed construction usages are order of the day. Construction risk and livability can be considered as; situation of building, type of building, ground situation, dangerous usages, usage disharmony in constructions, infrastructure, poverty, transportation, inadequacies in outfit areas, seismicity, flood, river basin usages.

### **3.4 Strategies about Social Structure and Problems**

We can generalize it as income situation of the population, education, health, cultural level, population movement and migration analysis, security, dissatisfaction, ethnical properties, expectations of livings and problems in the area.

When social structure is studied regarding livability, especially children play grounds, insufficiency of green areas, appropriation of the building usages to construction management etc, takes attention of livability and sustainability.

As Turkey has geography in which social differences are common, ethnical differences take attention. Creation of proper urban living areas for these differences is very important in urban regeneration applications. Istanbul Sulukule which is taken the scope of urban regeneration application clearly shows the rate of success in these applications.

# 3.5 Problems with Management's Legal and Administrative Strategies

It is very important to present management's legal and administrative structure and presenting strategies about them.

- Determination of limited right facilities on the public properties during urban regeneration application process
- Discretionary power of the management within the scope of urban regeneration frame.
- Property right problems related with application area,
- Management chaos between metropolitan municipality and the other municipalities,
- Aim of increasing the incomes of municipalities

There is a general frame is created for the determination of the problems in strategies of the applications in Turkey. As a result, solution of economical, social, environmental, planning, design and administrative problems can be provided and maximizing the incomes related with these strategies.

 Determination of strategies which brings maximum income is a "Decision Analysis Process"

For this reason, decision making analysis process and models will be studied and practicability of these techniques for urban regeneration applications will be discussed.

# 4. DECISION ANALYSIS PROCESS AND CHANGES OF STRATEGIES IN MODEL APPLICATIONS IN TURKEY

In Turkey, when urban regeneration applications are studied, it is seen that strategies are changed according to necessity of urban regeneration, attending groups and faced problems. Expectations and demands of the attendant groups can be in conflict with each other or can be parallel. A decision which is taken within a group can result against another group. This situation can cause failure or rising of far plans from sustainable approach in application process and after that. In this study, the necessity for determination of the strategies is represented which will not cause conflict between attending groups and provide equal benefit. Strategy change and process of finding the strategies which provides the best benefits for all attendant groups will be defined by problems faced in some urban regeneration applications in some metropolitans of Turkey and definition of related attendant groups.

These applications are conspicuous in its social structure change, Istanbul Sulukule urban regeneration application, Haydarpasa harbor urban regeneration application which is one of the transportation focus of Istanbul and Ankara Ulus historical central urban regeneration application samples.

ISTANBUL (SULUKULE	URBAN REGENERATION NECESSITY
Romanesque District)	
	Necessity of increasing social structure quality, Opening Romanesque cultural and ethnical structure for tourism, Its qualification of being an archaeological area and Byzantium era (url 1), Existence of building which has earthquake and fire risk, Its being a regular and pure tourism center,
	REGULATIONS
	There is 620 property owner, 434 tenant and 45 stores in project area which consist of 91.496 meter square, 10 streets and 3 avenues. Houses which will constitute Ottoman-Turkish architecture will be 2, 3 and 4 floor as they are now. Siding of the houses will be rock and timber cover. Street silhouettes will be protected. However, 44 licensed masterpieces which include mosque, church, fountain, houses will be restored. There will also be a culture center and boutique hotel in project area. Sulukule Culture and Entertainment Facility will have 1500 m2 closed area and will teach conservatoire along with Romanesque music (url 2).
	PROBLEMS
	Although it is an archaeology area, archaeological excavation can not be done and archaeologists get angry with that (url3). European Roman Rights Center says that there is racism in here and regeneration without considering a society who has lived there for centuries will be meaningless (url 4). Municipality announces this project as the most social project of the world and property owners are understood but as the rate of tenant are huge, it reduces the success rate of the project.
	PARTICIPATING GROUPS
	Municipality, Property owners, Tenants, Commission of Culture and Natural Values Protection, Civil Organizations, ERRC (European Roma Rights Centre), Istanbul Metropolitan Municipality   PRIMARILY DETERMINED STRATEGIES   1. Strategies about social structure   2. Planning Strategies   3. Strategies about economical structure

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ANKARA	NECESSITY OF URBAN REGENERATION
(ULUS Historical City Center)	
	Necessity of regaining and reacting Ankara's one of the oldest historical and cultural structure, Ulus, which is settlement and merchandise center. Existence of first, second and third degree archaeological and urban sit area Its being a historical urban center from Roma Era to Ottoman and Republic (url 5). Ulus which has lost its identity of being the most dynamic place of Ankara after 1940's, is tried to get back its old reputation (url 6). ARRANGEMENTS
	New Mia decision, transitional period protection plans, replanning of historical urban center, new arrangements are done as public project areas.
	PROBLEMS
	Lack of a router macro plan, in places which are determined as sit area around Ulus central business district (cbd), narrowing sit area, excluding from sit area, losing license etc, Council takes the decisions and causes existence of multi floored constructions on the avenue. Expectation for income causes building's left without restore, leavings, destroying by firing and leaving this places as wrecks (url 7). Turkey Grand National Assembly chamber of architects and Chamber of Ankara Branches City Planners sued and stopped the executive as they think that regeneration project is illegal. Sue process still goes on (url 8). 1- Inefficiency of local administrations technically and economically, lack of experience and savings, 2- Communication and coordinate lack, bureaucratic obstacles between Local Managements itself and their contact with centralized management, 3- Difficulties and insufficiencies with people's planning and positive effect on application in the application area of centralized management, 4- Authorize chaos between legal and management frame (url 9), ATTENDANT GROUPS
	Professional organizations, Architectures, Civil Organizations, Tenants, Property Owners, Council of protecting culture and natural values, nongovernmental organizations, Ankara Metropolitan Municipality. PRIMARILY DETERMINED STRATEGIES
	Planning strategies,
	Strategies about economical structure,
	Environmental structure strategies,
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ISTANBUL (HAYDARPASA HARBOR)	NECESSITY OF URBAN REGENERATION
	Its being 1st degree urban protection area, Visual and environmental problems lived in harbor, Its being an important focus point of the city, Its being city's one of the old and important merchandise centers,
	REGULATIONS
	Regeneration project which will be applied to Haydarpasa Station will be determined by a contest in which citizens will also take place (url 10). Project is planned as cruise harbor in the coast and Commerce- Service structures will take place is accepted by Istanbul Metropolitan Municipality Council in December 2009 Haydarpasa Station Building's ground floor will be station, other parts will be rest area, recreational facility, and culture center functions will take place, 1/5000 scaled Haydarpasa Station, Harbor and Back stage and Kadikoy Square and Real Constructions Plan for protection of the Environment (url 11).
Taughold San Industr	PROBLEMS
	There was a fire danger, Problems of the harbor about environmental structure,
	ATTENDANT GROUPS
	Turkish state railways, Istanbul Metropolitan Municipality, Protection Councils, A council consist of scientist men ,occupational groups, architectures, organizational groups,
	PRIMARILY ADOPTED STRATEGIES
	Environmental Structure Strategies, Planning Strategies,
	Economical Structure Strategies,

#### 5. METHOD RESEARCHES IN DECISION ANALYSIS PROCESS OF URBAN REGENERATION APPLICATIONS

There is a lot of decision making models in literature about qualitative and quantitative methods. SWOT, delphi, multi criteria decision matrix, pareto analysis, game theorem, effect diagram, nominal group technique, Kepler-Troge Analysis are some of these models (Aplak, 2010).

These decision making models are used proper to assessment criteria in a lot of decision making problems. However, choice of decision making model which helps solution of problems is a very important issue.

In urban regeneration applications, it is very important to make optimum strategy decision for each attendant group. For this reason, decision making models which will be used in optimum strategies choices should be studied in regards to assessment criteria. So, necessary model and assessment criteria which are needed for qualified urban regeneration applications can be determined.

Some decision making models used in literature;

#### 5.1 Swot:

Swot analysis has a structure which consists of independent and different analysis. The more various and high volume information and data analysis are put into effect and more details data are get, the more detail results come out for the results in SWOT analysis. This situation. This situation can gain clearer and healthier perspectives to appliers (url 12).

#### **5.2 Nominal Group Technique:**

This is the method which is used for listing "New Ideas" list of all group members according to primary order (url 13).

#### 5.3 Multi Purposed Decision Making

Multi Purposed Decision Making are decision problems which include more than one aim. Decision maker have to consider environment, process, sources while looking for solution (Ofluoğlu, 2006)

Disadvantages of the method;

- Subjective assessment can provide different results in different times
- It does not solve group decisions or problems in proceedings (url16).

#### **5.4 Pareto Analysis**

It is a method which is used for ordering reasons of a problem and separate unimportant ones from important ones and gathers attention on important ones. Pareto analysis tell the primary problem to be solved more than the solution of the problem (url 17).

### 5.5 Delphi Technique

This is the technique which is used for predictions (Aktan, 2008).

This is the study of experts trying to achieve a consensus by the help of a lot of unnamed post survey (url 14).

Disadvantages of Delphi Technique

- It takes a lot of time
- Answerers should be able to transform their thoughts to written documents in a true way
- Answerers should be motivated in surveys
- Technique do not provide benefits to attainders about social relationships
- There is no possibility of explicating expressions in verbal.
- Answerers, who are in doubt with ideas, solve this by voting. They do not have such an opportunity that is in verbal contact.
- When the technique is used by the purpose of prediction its benefit can not be determined.
- Questions can be extremely boring if they are not organized enough.
- The group who will sum up the survey should have some specific abilities (url 15).

# 5.6 Game Theory Model

Game theory model is a mathematical device which is used for modeling of the strategically confrontations in a model. It can be defined in matrix or tree form. Each game consist of game players, strategies and rules. It consists of at least two attendant groups and attendant groups are expressed by players. Players can be constituted by institutes, individuals, states or etc. Strategies are determined according to the demands of the players and expert opinions or measuring methods such as survey. This model can determine strategies for each attendant group in urban regeneration applications and can provide common benefits for all attendants. In other models which are studied, decision maker's decision choice is emphasized. So there is not a competition. But it is very rare that lack of competition in a real life problem. In real life more than one decision maker are in competition with each other for having the most benefit for themselves. This aim and targets are within the frame of game theory model.

Urban regeneration Applications requires;

- Strategically point of view
- Rationalism
- Alternative point of view
- Best point of view fro all rivals in competition conditions

For this reason within all these decision analysis techniques, game theory can provide most proper benefit for all attendant groups and applied project in the end in urban regeneration applications.

When Istanbul Sulukule urban regeneration application, Ankara Ulus urban regeneration application, Istanbul Haydarpasa urban regeneration applications are studied, it is seen that

attendants, problems and related demands changes for each of these applications. So strategies will change for each project.

Game theory technique can be used in increasing sustainability and achieve in urban regeneration applications in Turkey.

#### CONCLUSION

Damaged, ruined urban area is regained to city by urban regeneration applications. But in Turkey, applications are badly effected because of private and public sector investments and effects of speculators and value increases come up. Beside capital gains, the fact that application is not assimilated by habitants, applications become socio-economical and socio-cultural in regards of sustainability. For this reason, it is very important for each attendant to express their participation and expressing their demands.

In urban regeneration applications, getting share in capital increases and realization of their demands are very important for attendants. This situation is a decision analysis process. Gaining successful results in urban regeneration applications can be getting by a decision model. Game theory model can be a decision making model as it provides a strategically point of view and can be applied in competition conditions. Also local managements can use game theory for asking attending groups' opinions and determining common strategies.

Despite all of these, urban regeneration applications are real life problems. For this reason game theory can be insufficient in defining real life problems. In this situation artificial intelligence techniques and their hybrid methodology with game theory can be used in applications.

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# **BIOGRAPHICAL NOTES**

2004 I started to Geomatic Engineering in Selcuk University in Konya in Turkey, 2006 started to Urban and Regional Planning in Selcuk Uni. with double license, 2008 completed Geomatic Engineering in Selcuk University with second degree, 2008 started to master in Selcuk University,

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