

Resilience of Urban Systems in the Context of Urban Transformation:

Lessons from Beykoz-İstanbul

Extended Abstract

Resilience has been an important discourse in urban studies and urban policy which was prioritized by researchers as well as policy makers (Wilkinson, 2014). However, the fact remains that, what resilience means for planning is not clear and yet to be explored. Beyond these, efforts to understand urban systems are still in an exploratory stage and there is a great opportunity for creative approaches and perspectives. At this point, understanding resilience more than a metaphor we argue that transformation (by regeneration and renewal) and displacement agenda of a given urban system could be read, discussed and measured over such a 'resilience' conceptualization. From this point of view, particularly cities like İstanbul that are subject to dynamic spatial changes, are especially worth-working.

Departing from the gap in the national literature and a focus on community and urban system resilience, we try to bring up "resilient neighborhoods" as a concept for discussion, through a district located in the northern shores of İstanbul Bosphorus where a mega investment -the 3rd bridge-- is constructed and started to affect its vicinity. In respect thereof planning here is supposed to be a tool to shift vulnerable features of an urban system -which has to be sustained- to resilient. Therefore, we aim to present resilience of an urban system - neighborhood- and resilience against a displacement problem and social change. We attempt to make an assessment through 17 neighborhoods in Beykoz, within the context of resilience in a transformation environment and represent planning tools through a resilience perspective. We aim to focus on the role of planning activities and define a framework that planners can use or enhance during the planning process of a sub-urban system. Planning besides all its objectives also has to serve to enhance the vulnerable features of an urban system and give planning decisions depending on the system's resilience or vulnerability. Consequently, we dare to define systems as resilient which are not vulnerable according to the features and indicators we put forth.

With a population of 14 million people, İstanbul is the largest city and the financial center of Turkey which generates capital accumulation and triggers the transformation of city. This transformation process is realized through (1) capital investments (prestigious business

centers, five star hotels, shopping malls, gated communities...etc), (3) mega infrastructure projects (3rd bridge, 3rd airport, ...etc), (3) regeneration/revitalization/transformation projects in residential areas (Çalışkan et al, 2013). This spatial transformation also accompanied by a social change depending on the increased land prices in the central city and urban fringes. Forced eviction and displacement seems to be the consequence of the transformation processes while existing users cannot afford new services provided by new physical structure in central places and cannot proceed the production in agricultural land.

Our paper mainly leans on this process as the resilience of neighborhoods and urban systems against this change and displacement as the disturbance. According to the above mentioned framework, field research has been conducted in Beykoz hosting a mega infrastructure investment, third bridge as a state-driven planning decision. The value of Beykoz undoubtedly comes from its natural environment which is located on northern shores of Bosphorus with villages, groves and forest areas surrounding a central historical village. Beykoz in one hand has many special legal conservation status depending on its natural assets and its location on the Bosphorus. On the other hand; increasing accessibility through the 2nd and the 3rd Bridges in the process of construction accelerates demand on residential development in relation with the so called “2b” forest lands which are subject to privatization. Land handovers in the fringe and rural areas of Beykoz and increasing land price has been a phenomenon since the beginning of 2000s. The main route of the 3rd Bridge and also the connecting roads will increase the accessibility of Beykoz which will be accompanied by a social and physical transformation.

Thereby, this paper proposes a framework for accounting for the physical and social components of neighborhood as an urban system in adaptation to crisis in the form of displacement. While ideas of place have been incorporated into research on social and community resilience, the existing work tends to focus on place attachment and the features of the neighborhood. Departing from a place attachment and local service using perspective Beykoz mainly stand in a self-supporting context (Özügül and İnal-Çekiç, 2015).

To explain the distinction between neighborhoods of Beykoz within a resilient context, 17 neighborhood and villages have been selected to represent Beykoz as a whole with its 25 neighborhood and 20 villages. Throughout the stratified sampling methodology; their location, number of households, population and neighborhood status were taken into account for the

selection. According to the sample size, number of questionnaires has been calculated on the base of total households. 392 questionnaires have been conducted with households on a street base within the selected neighborhoods which has been representing Beykoz within a % 95 confidence level and $\pm 0,05$ confidence interval. Questionnaires applied to collect data on profiles of the households and their attachment to the neighborhood, inter-urban mobility, household income, status of the property and house.

Depending on these questionnaires and available official statistics, we then first applied a hierarchical cluster analysis which is an explorative analysis that tries to identify structures within the data. Cormack (1971) and Gordon (1999) uses the term of “cluster” emphasizing two main features: A cluster is an integrity that has an internal cohesion and external isolation. Considering our methodology, *cluster analysis* is used to organize observed data into meaningful structures to obtain groups of neighborhoods depending on their degree of similarity. We used 21 indicators in this hierarchical cluster analysis where, neighborhoods within the clusters have been ranked according to their resilience against an outside factor as the disturbance.

This field research which has been conducted in Beykoz surely does not give common results for all cities and neighborhoods, but at least it emphasizes the role of planning, to strengthen vulnerable features of communities while sustaining the resilient ones. We think this paper presents important clues for planning studies particularly when a mega infrastructure project or an investment is on the agenda. From this perspective it seems to be crucial to evaluate the inevitable consequences and social impacts of such investments within their close vicinity. Moreover our research reveals that tackling the region as a monolith will be a negligent approach. So this provides a broader perspective for planners to consider the vulnerable and resilient features of a given neighborhood while shaping a planning decision process. Within this context we used land value changes, population change, legal status, place attachment and property rights as the assets of a neighborhood depending on the site specific characteristics of Beykoz, where we have to admit that it is possible and essential to develop additional indicators. Due to our findings we could easily suggest that ‘resilience seeking practices’ will always remain as a continuous effort for planners rather than being some sort of an achieved endpoint.