NEIGHBOURHOOD REGENERATION IN ISTANBUL: FROM EARTHQUAKE MITIGATION TO PLANNED DISPLACEMENT AND GENTRIFICATION

Mike Gibson1 | Zeynep Ayşe Gökşin2

1 London South Bank University
2 Istanbul Kültür University

The paper analyses the development of neighbourhood regeneration in Istanbul since the 1999 Marmara earthquake, contrasting initial concepts and policy recommendations with actual policies and outcomes. An historical analysis of Turkish urbanisation identifies the specific characteristics which have influenced a shift from the concept of neighbourhood regeneration as earthquake mitigation to private sector-led redevelopment which fails to target earthquake vulnerable neighbourhoods but delivers planned gentrification. The analysis identifies three phases in the recent emergence of neighbourhood regeneration in Istanbul. The first was a series of studies and pilot projects which established the key components of a Turkish model of earthquake resilient redevelopment of poor neighbourhoods, with minimum gentrification. The second was dominated by the implementation of pioneering projects with controversial gentrification outcomes. The 2012 Urban Regeneration Law has established the parameters of the third phase dominated by the launch of a national programme. This evolutionary process is illustrated by a case study of Bağcılar. The paper concludes that the challenges of neighbourhood regeneration are rooted in Turkey specific historical urbanisation processes. Current neo-liberal redevelopment policies will not protect the urban poor from future earthquakes but this situation may change as the earthquake threat regains the attention of policy makers.

Keywords
neighbourhood regeneration, earthquake resilience, Istanbul

How to Cite

DOI: http://dx.doi.org/10.7480/iphs.2016.2.1243
INTRODUCTION

The explosive growth of Istanbul from 1 million in 1950 to 10 million by the end of the century was dominated by illegal gecekondu (literally built overnight) development which accommodated the migrant labour needed to sustain state-led industrialisation in an emerging economy. But from the 1980s self-build squatting was largely displaced by rapidly developing, but weakly regulated, land and property markets - the emergence of Turkish neo-liberal urbanisation. Initially, this shift had two major impacts: the northerly extension of the CBD to Maslak and accelerated peripheral expansion, characterised by industrial decentralisation and low quality, high density apartment blocks with minimum public services.

But the loss of 18,000 lives in the 1999 Marmara earthquakes focussed attention on the legacy of 20th century urbanisation – hundreds of thousands of poorly constructed, earthquake vulnerable and life-threatening dwellings. In the aftermath, the concept of neighbourhood regeneration as earthquake mitigation entered the urban policy agenda, hitherto dominated by the problems of rapid urban expansion. However after sixteen years of policy debates, innovative projects and new legislation, neighbourhood redevelopment is widely perceived to be promoting gentrification, rather than providing the urban poor with safety from earthquakes and improved living conditions.

This paper aims to explain this sharp contrast between initial concepts and the emerging impacts by identifying the characteristics of post-war urbanisation shaping neighbourhood redevelopment, drawing on a literature review and an original case study of Bağcılar. The analysis focuses on the dynamic inter-relationship between academic and professional discourses, innovative neighbourhood projects and the evolving neo-liberal political and economic strategies of central government. The paper concludes that current practice will fail poor communities and outlines some of the policy changes needed to deliver socially just outcomes.

THE CHALLENGING LEGACY OF 20TH CENTURY URBANIZATION

An understanding of the history of Turkish urbanisation is a fundamental requirement for an explanation of the contested concepts and practices of contemporary neighbourhood redevelopment. The physical legacy of illegal development is the official justification for the demolition and replacement of six million poor quality apartments in deteriorating low income neighbourhoods. The socio-economic legacy is at the root of the widespread grass roots opposition. Thus the paper first identifies the specific outcomes of 20th century urbanisation which structure neighbourhood redevelopment.

Until the mid-1980s, post-war state industrialization encouraged massive rural-urban migration to Istanbul. Migrants could not afford legally constructed houses and in a developing economy the state could not provide subsidised affordable housing. Therefore, the migrants met their housing needs in self-build gecekondu (literally ‘built overnight’) developments of single storey, low density dwellings (including gardens) on under-used land usually owned by the state – a ‘moral economy’ of housing. In Istanbul, gecekondu development at scale within municipal boundaries started in Zeytinburnu and developed in a swathe around the pre-war city between 1950 and 1970 – see Figure 1. The state was either unable or unwilling to institute a formal capitalist property market. Instead it opted for populist clientelism which kept public lands out of the market. Hence the state response to illegal land enclosure was a series of Amnesty Laws which provided both security from demolition and basic services in exchange for votes, accompanied by the imposition (but ineffectively enforced) of minimum construction standards.
Peripheral public land outside municipal boundaries was enclosed by land brokers simply applying to the central government Title Deeds Offices. This enabled a huge number of mainly small plots to be formed, facilitating illegal construction. Until the 1970s individuals could wholly own such a newly created plot. But from the 1970s, as these areas were included within the boundaries of new municipalities, this process was outlawed. Brokers then turned to selling peripheral agricultural land using shared deeds: people could only purchase a percentage share of a plot, rather than a specific plot or identified part of a plot. Both types of landowners had no legal ownership of the dwellings they built on their legitimately owned land, since the construction was illegal. A high proportion of these dwellings were constructed on earthquake vulnerable land.

Housing development pressures intensified as the expanding industrial sector de-centralised through the (mainly illegal) construction of factories on cheap land close to the newly constructed motorways. The 1965 Flat Ownership law transformed gecekondu development by enabling the ownership of a single flat in an apartment block. This provided the security of tenure needed for the ‘share of construction process’. Construction companies negotiated with the owners of single storey gecekondu dwellings to redevelop their land into 4-6 storey apartment blocks. The new apartments were shared between the owners and the developer. This process also fuelled continuing illegal development of peripheral agricultural land through the consolidation of empty plots owned on the basis of shared land deeds. Thenceforth gecekondus were no longer built simply for shelter, but to create capital assets which could be traded as commodities. A major market in illegal dwellings emerged – an ‘immoral economy of housing’.

The 1983 Amnesty law no. 2981 weakly regulated this rapidly expanding market by requiring Improvement Plans to be implemented in gecekondu areas. Gecekondu residents had to apply to government licensed private technical offices for pre-title deeds which would be converted to title deeds after the municipality implemented the Improvement Plan for the area. But not all residents could afford to pay and make their applications correctly to obtain their pre-title deeds. Thus residents ended up with different levels of property rights ranging from title deeds, to pre-title deeds to no deeds at all – just pieces of paper giving no legal property rights.

From the 1980s onwards, a significant exception to illegal development was the creation of the Mass Housing Administration (later referred to as TOKI) to provide central government support for housing co-operatives to build estates of apartment blocks. But most of these estates were also poorly constructed on earthquake vulnerable land.
1  Historic pre-20th century neighbourhoods - now occupied by the urban poor, high earthquake risk locations, which are increasingly vulnerable to gentrification.

2  Traditional 1950s gecekondu neighbourhoods - predominately built on publicly owned land, self-build, single storey, usually single family dwellings; now a residual category of poor neighbourhoods which are being redeveloped.

3  Redeveloped gecekondu areas - produced by the “share of construction” system since the late 1960s. These neighbourhoods are dominated by high density 4-6 storey apartment blocks, which have deteriorated over time, a high proportion of which are vulnerable to earthquake risk.

4  Illegal housing areas built on sub-divided peripheral land until 1970s - people can become the individual owner of newly created plots but have no ownership of the dwelling since it is illegally built. A high proportion of these neighbourhoods are vulnerable to earthquake risk.

FIGURE 2. A typology of earthquake vulnerable neighbourhoods

The resultant pattern of metropolitan expansion is illustrated in Figure 1. Three outcomes have major influences on neighbourhood redevelopment.

– The variety of earthquake vulnerable neighbourhoods means that the district mayors face different challenges and opportunities, as shown by the typology in Figure 2.
– The huge complexity of land and building ownership rights at the levels of both individual plots and building blocks (Figure 2), further fragmented by Turkish inheritance laws which require owners to divide their estate between all their children. Thus a land shareholder living in an apartment may be only one of many shareholders who live elsewhere.
– The variable attitudes and aspirations of low income residents, most of whom do not wish to see their community broken up, many of whom neither want nor can afford the replacement housing, and most live in neighbourhoods which have history of self-reliance and a capacity for collective action.
Whilst many ‘owners’ have only informal property rights which may not be accepted as legitimate, tenants have no property rights at all. Thus residents of poor 20th century neighbourhoods are both earthquake vulnerable and legally vulnerable. By definition, neighbourhood redevelopment requires the restructuring of this complex array of property rights which, along with residents’ needs and aspirations, have to be identified and taken into account in the re-housing process. Hence securing the agreement of residents for a proposed demolition and re-housing project is extremely difficult. This was the challenging legacy facing policy makers when the 1999 earthquake tragically demonstrated the need for socially acceptable large-scale neighbourhood redevelopment programmes.

NEIGHBOURHOOD REGENERATION IN ISTANBUL

Historically, in 20th century social democratic Europe, state-subsidised redevelopment and/or rehabilitation of run-down 19th century neighbourhoods generally improved the living conditions of existing low income residents. This section demonstrates how, in the absence of a welfare state and in the context of the emergence of neo-liberal urban regeneration, the legacy of urbanisation is shaping socially regressive neighbourhood redevelopment. The analysis is structured with reference to three periods, distinguished by the changing relationship between academic and professional discourses, innovative neighbourhood projects and the evolving economic and political strategies of central government.

The concept of ‘neighbourhood regeneration as earthquake mitigation’ emerged in the aftermath of the earthquakes. Public outrage about the inability of much of the building stock to withstand earthquakes prompted an academic and professional discourse on earthquake mitigation, focussed on the need to address the causes of the huge scale of the loss of life - the legacy of thousands of poorly constructed earthquake vulnerable apartment blocks.

Turkey was emerging from a deep economic recession which had resulted in the election in 2002 of a single party, neo-liberal AK party government led by Prime Minister Erdoğan, after decades of weak coalitions and rampant inflation. Turkish scholars and policy makers increasingly engaged in the rapidly developing international discourse on the need for a holistic approach to urban resilience, which emphasises mainstreaming disaster risk management including risk sensitive urban redevelopment. In parallel, the longstanding tradition of drawing on international urban planning experience re-emerged in the context of the EU harmonisation process. National government, supported by the World Bank, focussed on the need to implement earthquake resilient construction standards for new housing. The Istanbul Metropolitan Municipality (IBB), supported by the government, commissioned a variety of studies from national and international experts in earthquake science and urban planning, which focussed on the need to redevelop/rehabilitate much of the existing housing stock.

The initial policy driver was a forecast that there was a high probability of a much more severe earthquake by 2030. This prompted a major study by IBB with the Japanese International Co-operation Agency (JICA) which predicted that without major redevelopment some 185,000 buildings will be heavily or moderately damaged, causing some 90,000 deaths and 135,000 serious injuries. JICA argued that effective earthquake mitigation required the demolition or structural upgrading of more than a million dwellings in some 400 vulnerable Istanbul neighbourhoods. IBB then commissioned studies and pilot projects which drew on the experience of EU countries and advocated a strategy of comprehensive redevelopment/rehabilitation of high risk neighbourhoods using models which avoid gentrification. The Zeytinburnu Pilot Project proposed a model district-wide Emergency Action Plan which included widening roads into boulevards to ensure access of emergency vehicles in the aftermath of the next earthquake and designated open spaces as assembly points, together with the rehabilitation to earthquake resistant standards of schools and other public buildings. The Fener-Balat EU project demonstrated the application of a community-based approach to neighbourhood rehabilitation derived from the...
experience of EU countries. Overall, this innovative work established the key components of a Turkish model of earthquake resilient regeneration of poor neighbourhoods with minimum gentrification.

However, as the economy moved from recovery to rapid growth with modest levels of inflation, political and economic elites fully established the goal of global city status. In the context of a faltering EU harmonization progress and a second term for an increasingly neo-liberal, pro-development AKP government, this second period saw the emergence of the concept of ‘neighbourhood regeneration as planned gentrification’. The concept of ‘neighbourhood regeneration as earthquake mitigation’ was marginalized as academic research informed by concepts of neo-liberal urbanism exposed the negative impacts of neighbourhood redevelopment and documented increasing grass-roots opposition.

In 2005 some of the proposed powers of a draft Urban Regeneration Law were provided in Article 73 of Municipal Law no. 5399, including the designation of Urban Renewal Areas (URAs) and residential neighbourhoods to re-house displaced homeowners. TOKI was made the sole agency for the zoning and sale of state-owned land, with powers to expropriate property and to build and sell profitable housing to raise revenues for the construction of subsidised housing for sale. Thus from the mid-2000s neighbourhood redevelopment was characteristically implemented through a ‘demolish/rebuild’ partnership. This was essentially a modified version of the share of construction process in which the municipality acquired the apartments and cleared the URA and TOKI then replaced the housing on site and in new neighbourhoods.

Few mayors used these powers being wary of the electoral risks of public opposition. However, Küçükçekmece District pioneered the redevelopment of two traditional gecekondu neighbourhoods Ayazma and Tepeüstü. With the support of local and international academics and in partnership with TOKI and IBB, the municipality sought to adapt international experience by combining comprehensive physical redevelopment with a ‘social development programme’ for the benefit of existing residents. The stated intention of a partnership between the municipality, TOKI and IBB was to provide local rehousing. But the outcome was the long drawn out forced relocation of residents to a new TOKI estate, during which time some tenants refused to leave and lived in tents for up to three years. Local new housing was dominated by expensive gated developments catering for newcomers to the area. When the residents of the Başıbüyük URA in Maltepe organised to resist expropriation and relocation they were met with a highly publicised, violent police response.

But it was the controversial implementation of the 2005 Renewal Law No. 5366 in the city’s historic districts which generate huge opposition. The law provided municipalities with powers to designate Renewal Areas (RAs) in already designated Conservation Areas. However, the Fatih Municipality, in partnership with TOKI, chose to use this legislation to implement the comprehensive redevelopment of the Sulukule neighbourhood in the Historic Peninsula. Despite well organised campaigning opposition, which generated massive local, national and even international publicity, redevelopment destroyed the 1000 year old Romany community. Most local residents were relocated to a TOKI estate some 40 km away. But the majority neither liked their new environment nor were able to keep up with the payments on the subsidised mortgages provided by TOKI. They moved back as tenants to streets close their now redeveloped neighbourhood. This gave rise to the slogan ‘no Sulukule here’.

In Fener Balat the EU funded community-based pilot project was succeeded by a construction company-led rehabilitation project which is promoting neighbourhood gentrification. In parallel, Beyoğlu Municipality commissioned a construction company-led combination of redevelopment and rehabilitation in the deteriorating 19th century Tarlabası neighbourhood adjacent to Taksim Square. Again, efforts by community activists failed to minimise gentrification.
The long awaited 2012 ‘Law of Transformation of Areas under the Disaster Risks no. 6306 (conventionally referred to as the Urban Regeneration Law) defined the onset of the third period. The new Ministry of Environment and Urbanism (MEU) took control of the URA programme through its powers to designate both URAs and re-location areas, in response to applications from municipalities. Municipalities identify potential URAs, and undertake all technical and planning analyses, including earthquake vulnerability surveys before application for URA designation. Neighbourhood residents do not participate at this stage. After designation, the municipality prepares formal implementation plans as the framework within which construction companies develop housing redevelopment projects with residents.

Implementation relies on the share of construction process and is invariably contentious. Individual residents, often with ambiguous property rights, negotiate with a construction company to agree their share of construction (according to the level of their property rights) and the construction company share which determines its rate of profit. But compensation for ‘illegal’ dwellings is still only about quarter of their market value and this means that the balance required for purchase – a subsidised mortgage - is unaffordable for many residents. However, new financial incentives do provide support for residents who have ‘legitimate’ property rights, including the reduction of VAT on construction from 18% to 1% and rent support to owners to pay for temporary re-housing during redevelopment. But tenants still have no re-housing rights and receive only temporary rent support with a contribution to moving expenses.

The official aim of national policy is to give priority to improvement, clearance and renewal of disaster (mainly earthquake) vulnerable areas and buildings to deliver a national target of the demolition of 6 million poor quality and earthquake vulnerable dwellings across Turkey. In Istanbul 40 URAs have been designated, including pre-2012 URAs now re-designated to enable the new powers and resources to be applied. But the URA designation criteria are not transparent and very few of the first wave of URAs designated since 2012 are in the high earthquake risk areas identified by the JICA study – see Figure 3. This fundamental contradiction between officially stated aims and emerging outcomes is at the core of the contemporary policy and political debates. Many critics argue that this can only be understood in terms government economic growth policy giving priority to sustaining construction industry. Thus URAs are creating opportunities for profitable housing development as they are designated in poor neighbourhoods where physical upgrading will deliver the highest rate of return to construction companies.
EMERGING REGENERATION IN BAGÇILAR

Bağcılar was a village in open countryside until the 1970s when land brokers began selling shared title deeds for small plots of peripheral agricultural land. From the 1980s the area developed increasingly rapidly and almost wholly illegally, with the exception of a significant number of co-operative housing estates, and was constituted as a separate Municipality in 1992. Rapid urbanisation intensified through the 1990s and the population was estimated at 746,650 in 2010. The 2002 JICA-IBB study estimated that 90% of the resultant building stock is made up of earthquake vulnerable concrete frame structures. This stock is dominated by 6-8 storey apartment blocks in primarily residential areas, often with small scale commercial and industrial users on the ground floor – figure. JICA identified Bağcılar as one of the 11 most earthquake vulnerable districts in Istanbul. It estimated that 7000 buildings, 20% of the district total, would suffer heavy or moderate damage, causing over 5000 deaths with more than 7000 severely injured. The study recommended strategic improvement or redevelopment in all 22 neighbourhoods.

In 2008 the municipality prepared the Bağcılar Spatial Development Strategy which focussed on earthquake resilience by building on the experience of the 2005-6 Zeytinburnu Project to define a District wide Emergency Action Plan and prioritised strategic neighbourhood redevelopment areas. But the failure of central government to enact urban regeneration legislation discouraged intervention in gecekondu neighbourhoods. Instead the municipality gave priority to applying the share of construction process to the redevelopment of poor quality, earthquake vulnerable co-operative housing estates of apartment blocks of 4 to 10-11 storeys. Their long established, self-management arrangements make it easier to involve residents collectively in redevelopment. Hence in 2012 the municipality commissioned consultants to deliver a prototype model of project development in Barınkent which, in sharp contrast to conventional practice, involved designers working residents from the outset- see Figure 5. But notwithstanding unprecedented levels of collaborative work involvement, the residents were persuaded by a construction company to choose a cheaper design and reconstruction is now underway, demonstrating the inherent limitations of the share of construction process.

In the context of the 2012 Urban Regeneration Law the municipality established an Urban Design Department (UDD) which was given the powers and responsibilities of the three main municipal departments in URAs: Planning, Development and Urbanism, Licencing and Audit. It introduced significant improvements to communications with the public, including giving residents more direct access to municipal staff via shop front style offices. A multi-disciplinary team of architects, urban planners and civil engineers, secured the designation of 5 URAs: the Albayraklar and THY Housing estates and three neighbourhoods with potentially high property values - the semi-commercial Bağcılar Square area and the low rise, low density Göztepe and Kemalpaşa gecekondu neighbourhoods, which include public land purchased with a grant from the World Bank. UDD surveys confirmed the extreme earthquake vulnerability of Albayraklar and THY estates but none of the other URAs are in the highest risk areas defined by the JICA research – see Figure 4. Implementation began with the Albayraklar URA. A design project prepared by KİPTAŞ which gave each resident an apartment was rejected by the residents because they would need a 50,000 TL mortgage. The municipality arms-length company BAŞAK prepared an alternative design which reduced the costs to the residents to 40,000TL and the contractor’s profit to 13%. But this was only possible by increasing the density from 716 new apartments to 1196: 480 for the contractors’ share of construction. Nonetheless the sometimes heated negotiations with the residents over the terms of this ‘deal’ are still ongoing.
1 Bagcilar Aerial View-1970

2 Bagcilar Aerial View 2014

3 Jica areas and urban regeneration areas in Bagcilar

FIGURE 4 Urban growth and high risk neighbourhoods in Bağcılar
The municipality is making some significant progress within the limitations of a private sector-led national policy which restricts implementation to variations on the ‘share of construction’. It has developed its capacity for neighbourhood redevelopment through a major reorganisation of technical staff, improved communication with the public, innovations in project design and by creating a funding model which reduces the profitability of construction firms whilst sustaining commercial viability - all of which constitutes a major break with the long established traditions of Turkish bureaucracies unheard of five years ago. There is a real prospect of some success in the first five URAs, but it is clear that the Municipality does not have the tools to intervene successfully in the highest risk, poor neighbourhoods identified by the JICA study.

HISTORY AND PROSPECTS

The challenges of neighbourhood redevelopment are rooted in Turkey-specific 20th century urbanisation processes and outcomes. An informal development process, dominated by self-build gecekondu and ‘share of construction’ housing production, created vast tracts of poor and deteriorating neighbourhoods and a legacy of ambiguous property rights. By definition, neighbourhood redevelopment requires the re-structuring of these property rights. In a policy environment dominated by increasingly neo-liberal economics and politics, the implementation of a policy of redeveloping poor and earthquake vulnerable neighbourhoods in the interest of their inhabitants is subordinate to economic policies which sustain growth by vigorously supporting the construction industry. Thus the state enables and supports the primacy of market-led, profitable neighbourhood redevelopment, which is reliant on a modernised version of the share of construction process, now operating in a formalised housing market. The state subsidises housing construction costs by minimising VAT and provides subsidised mortgages to people with ‘legitimate’ property rights to enable them legally purchase a modern apartment, albeit at the expense of urban environment quality. But the level of profit generally required by private construction companies means that house prices are still unaffordable for households with low and irregular incomes and tenants have no re-housing rights.

Thus the evidence of recent academic research is that neo-liberal redevelopment is delivering a Turkish version of the global phenomenon of planned gentrification, which fails to improve and often worsens the housing conditions of the poor. But the current debate does not address the fact that failure to deliver clearance by consent will guarantee catastrophic loss of life in the next earthquake – maybe within 15 years. However, the dormant concept of neighbourhood regeneration as earthquake mitigation may soon re-emerge. A major IBB project demonstrates that JICA-IBB significantly underestimated of building damage and deaths and identifies more precisely the location of high risk buildings. The challenge for planning academics and professionals is to go beyond criticism to develop sound alternatives that could deliver neighbourhood redevelopment which minimises gentrification. This would build on the research and innovative studies which emerged in the aftermath of the 1999 earthquake and the positive achievements of innovatory municipalities such as Bağcılar. Such models would accept the evidence of the historical experience of countries such as England and the Netherlands and start from the premise that the availability of affordable replacement housing for all residents, including tenants, delivered through neighbourhood scale participatory processes, is necessary to achieve clearance by consent. The new assessment of earthquake risk will both emphasise the political risks of continued failure to target vulnerable areas provide the data needed for effective targeting. The need for neighbourhood redevelopment is the legacy of a moral economy of informal housing production and distribution which produced earthquake vulnerable neighbourhoods. There is now a moral imperative to modify the neo-liberal parameters of policy and apply a wider range of policy instruments to mitigate the impact of the next major earthquake with minimum gentrification.
The first stage of the design process was to engage fully with the residents through a face to face questionnaire survey of property owners to establish their needs and priorities, and regular meetings between the consultants, the municipality’s urban regeneration department and the residents to explain the redevelopment process. The second stage was the development of two detailed design alternatives which were shared with the residents at an evening meeting at the Municipal Hall attended by the Mayor and Deputy Mayor. At the end of the meeting, another short questionnaire was given to the residents asking for their views on the alternatives. The municipality subsequently published the design alternatives as a booklet. The survey results were used to revise the selected alternative and produce the final version of the design proposal which was submitted to the municipality. The Municipality’s preferred design has 146 flats for residents and 51 flats for the contractor in 3 low-rise and 1 high rise blocks. Residents will have to pay 35,000 TL. The private contractors’ design chosen by the residents has a total of 232 flats in 4 high rise blocks-146 flats for residents and 86 flats for the contractor. Residents will have to pay 26,000 TL.

1  Barinkent Housing Estate: Apartment blocks before
Note: The authors were members of the consultants team and it was this experience that initiated the ongoing monitoring and evaluation of neighbourhood redevelopment in Bağcılar.

2  View of Municipality’s preferred scheme

3  View of residents’ preferred (contractor’s) scheme

4  Apartment blocks before

FIGURE 5 Neighbourhood redevelopment in Bağcılar
Disclosure Statement
No potential conflict of interest was reported by the author.

Notes on contributors
Mike Gibson has over 40 years of experience of university teaching, management and research, private sector consultancy and local government planning practice. Since 2001, as Emeritus Professor of Urban Planning and independent researcher and consultant, he has divided his time between the UK and Turkey.

Zeynep Ayşe Gökşin is an architect and urban designer with a PhD in urban planning. She is working as an Assistant Professor at Istanbul Kültür University, Faculty of Architecture where she is currently working on a research project funded by TUBITAK (The Scientific and Technological Research Council of Turkey) which is analysing the processes and outcomes of urban redevelopment in the Gaziosmanpaşa District of Istanbul.

Endnotes
6 See 1.
8 AGFE, 2009.
10 This included engagement in the international debate on resilience, particularly the Earthquake Mega-Cities Initiative (EMI) which promotes Disaster Risk Management (DRM); Bendimerad, Fouad and Jerome Zayas 2015, Von Einsiedel, Nathaniel, et. al., 2010; Vale and Campanella 2005; Pelling 2003.
23 See 16.
24 See 19.
28 See 13, p.18.
30 Interview with E. Erteğin – Head of Urban Design Department, 2014.
31 Interview with A. Baghli – Architect in BAŞAK Co., 2015.
33 See 9.
Bibliography


Image sources

Figure 1: Adapted by the authors from Istanbul Earthquake Master Plan, 2003, p. 90.
Figure 2:
Photo1: http://www.beyoglubuyukdonusum.com/tarlabasi/detay/Fotograf/Galerisi/39/41/0#prettyPhoto[BuyukDonusum]/31/
Photo3: Authors’ Archive
Photo 4: http://www.gazettesenler.com/image/haber/2016/02/04/Resim_1454591331.jpg
Figure 3:
Figure 4:
Photos 1 and 2: Adapted by the authors from https://sehirharitasi.ibb.gov.tr/;
Figure 5:
Photo 2: Authors’ Archive
Photo 3: Adapted by the authors from maps in IBB-JICA, 2002, p.10-59 and p. 10-64 and Bağcılar Municipality MEU Areas
Figure 5:
Photo 2: Authors’ Archive
Photo 4: http://www.gazettesenler.com/image/haber/2016/02/04/Resim_1454591331.jpg