



How can urban policies address urban agriculture? The case of Diyarbakır, Turkey

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ABSTRACT

Urban agriculture, livelihood framework, urban regeneration, planning paradigms, informal settlements, Turkey

The study aims to investigate the role of planning policies on integrating urban agriculture in Diyarbakir, Turkey. It is conducted through a case study in the city of Diyarbakir where urban poverty is highly concentrated. In the study urban agriculture activities pursued in Sur - the informal settlement area undergoing an urban regeneration project - their characteristics, perspectives and actions of policy makers towards urban agriculture in that area, are explored.

During the field trip, agriculture was observed as a widespread activity in Sur where various forms of urban agriculture coexist. The study showed that there were several factors for urban agriculture to flourish such as access to resources and individual or cultural motivation. Above all, policies have a major role in enabling its potential. Up until now, agricultural activities in Sur received encouraging, passive or punitive reactions from the municipality based upon its aim, location, product, scale and hygiene. Urban regeneration project can also create concerns about the future of urban farmers there.

Main challenges in front of urban agriculture in the case of Diyarbakir are its non-recognition by central policies and the reluctance of local authorities to include it in a 'modern' image of Diyarbakir. The issue is to make local authorities aware about the use of urban agriculture as an important livelihood method and to integrate it in local planning agenda which is largely dominated by a strong state character and centralized planning mechanism.

ACRONYMS

EKOSEP: Economic and Social Integration Project in Migration-Receiving Cities (Göç Alan Kentlerde Ekonomik ve Sosyal Entegrasyon Projesi)

FAO: Food and Agriculture Organization of the United Nations

GABB: Union of Southeastern Anatolian Municipalities (Güneydoğu Anadolu Bölgesi Belediyeler Birliği)

IDRC: International Development Research Centre

RUAF: Research Centre for Urban Agriculture and Forestry

UA: Urban agriculture

UN: United Nations

UN-HABITAT: United Nations Human Settlements Programme

UNDP: United Nations Development Programme

TOKİ: Housing Development Administration of Turkey

TUIK: Turkish Statistical Institute

WUP: World Urbanisation Prospects by UN

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1. INTRODUCTION

In rapidly urbanizing world urban agriculture (UA) is rising as a widespread activity for its use as a livelihood strategy by urban population; consequently it is also becoming an important subject matter for the planning policies of urban centers. This study investigates the features of urban agriculture in the case of informal settlement area- Sur - located in the city of Diyarbakir in southeastern Turkey. Based on its characteristics, it questions the role of planning policies on integrating UA as a livelihood strategy in Sur area where the level of income is very low.

In following sections firstly the importance of urban agriculture (UA) on the face of rapid urbanization will be highlighted; secondly the reasons for studying Sur area as a link to it will be explained; thirdly my aim and research question raised in this study will be proposed; lastly the scope of the study will be outlined.

1.1Background

Estimates for increasing world population and rapid urbanization show interesting results about urban-rural population figures in upcoming decades. According to recent demographic trends by United Nations (UN), world population is expected to reach to 9.3 billion in 2050 from 7.0 billion in 2011, while the urban population is expected to rise to 6.3 billion in 2050 from 3.6 billion in 2011 (UN, 2012). According to World Urbanization Prospects (WUP) currently urbanization seems to widely spreading in low and middle-income countries. Level of urbanization is expected to rise in most of the areas of “developing world” while Asia and Africa would likely urbanize



Picture 1. Urbanization could have some difficulties such as being less in touch with greenery (source: <http://www.aasarchitecture.com>)

more rapidly than other continents do (UN, 2012).

Urbanization could be viewed in different terms with its various consequences. In regards to the positive outcomes of cities, UN-Habitat suggests that if administered efficiently dynamism and diversity flourish in cities which have the potential to promote economic development and to diminish the environmental degradation. Urban citizens use fewer resources and produce less waste benefitting spatial concentration of people through denser infrastructure, (UN Habitat, 2003).

In the meantime, urbanization may bring along some difficulties. Increased threat of

food insecurity¹, urban poverty² and hunger as well as the depletion of natural resources seem to rise as basic problems in cities especially in developing countries. According to Dubbeling et al., urban transition may trigger the 'urbanization of poverty', meaning the shift of poverty from rural towards urban areas due to immigration and lack of employment opportunities in the cities. Urban poor is more vulnerable to volatile food prices and income since their food expenditures make the most of their expenses almost at 60-70% (Dubbeling et al., 2010). The number of urban citizens in "developing countries" who survive with an income of less than 1\$ a day, have reached already 1.2 billion. This fact elaborates that more than half of the urban population in most of the developing countries lives below the poverty line making the access to food quite critical (UN, 2008 quoted in Dubbeling, 2010).

Urban centers have both its malfunctions and advantages. Still, they are attracting new dwellers from rural areas due to their potentials for more satisfying opportunities even though they have possible costs. People find out livelihood strategies to deal with the economic burden of urban life and alleviate poverty according to Veenhuizen, and urban agriculture (UA) is one of them (2006). Armar-Klemesu claims that UA is increasingly becoming widespread in urban/peri-urban

areas where almost 15-20% of food on the world is produced (2000).

The food produced via UA is not cultivated for the same purpose or in the same way around the world. It could be encouraged by policy-makers through formal platforms although in most of the instances it is an activity pursued informally. In recent decades there has been an increased support for enhancing UA both by planning practitioners and policy makers in their sustainable urban development programs, as reported by Veenhuizen. However, there is a lack of emergent responses from local, national and international policy level to enhance it. In some instances urban farmers are consciously aware of the use of UA as a strategy for alleviating poverty and they struggle for it to be recognized by the city authorities (Veenhuizen, 2006).

1.2 Problem formulation

The study area is examined based on the characteristics of UA in the informal settlement area and to what extent those features have been addressed as a local livelihood strategy through planning policies particularly through the urban transformation project in Sur.

This study focuses on the case of Sur which is an historical area with a lot of informal settlements on it. Sur is located in the heart of the town and is distinguished with the City Walls surrounding the historical town. This study area contains the area both inside and outside the City Walls that are similar in socio-demographic sense.

Now I will explain why Sur is chosen as the case study by zooming in district level from city level - Diyarbakir. Currently Diyarbakir,

¹ Food security exists when all people, at all times, have physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life (1996 World Food Summit cited in FAO 2008a).

² Poverty encompasses different dimensions of deprivation that relate to human capabilities including consumption and food security, health, education, rights, voice, security, dignity and decent work." - (Organization for Economic Co-operation and Development (OECD) cited in (FAO 2008a).

with its population exceeding 1.5 million is growing with a constant pattern of urban sprawl. Since 1990s Diyarbakir urban area has been undergoing tremendous physical changes due the increasing investment in housing. Besides, conflicts arising from its rapid urban growth do not promise a viable lifestyle for everyone there, instead it creates huge income gaps. In a city with high growth rates and low level of income, existing agricultural potential is eroding and threatened because of its exclusion from the planned development. Sur, as an area with high agricultural potential has also been

BOX 1. Urban regeneration project in Sur and Les Atelier

At the first stage, I chose Diyarbakir as a case study due to an intrinsic concern towards Diyarbakir Metropolitan Municipality's initiation of an on-site slum regeneration project in Ben u Sen located in Sur area. They held a workshop with Les Atelier to investigate possible ways to transform it by including various stakeholders. As I read more about the research done on Sur area, proposal and meeting notes from Les Ateliers' workshop process urban agriculture caught my attention due to its being a daily practice in the study area; and strong opposition by planning officials towards its integration in the transformation of the area. The more I read on discussion process the more I got curious on the urban agricultural practices pursued in the inner city district – Sur. Afterwards; I realized that UA in specific to inner city districts was not a well acknowledged topic in the context of Turkey. Realizing the potential of UA in the inner city of Diyarbakir urged me to go and investigate the urban renewal project in Sur generally and urban agriculture specifically during three weeks.

receiving a lot of attention of planning authorities as a result of its historical identity and very central location in the city of Diyarbakir.

As a planner interested in UA and its social, economic and environmental benefits, the study area Sur is worth to study as a real life problem because of the high potential of UA, its use as a livelihood method and responses of planning policies towards it. Sur area being stuck in rooted poverty is also quite remarkable for its potential embodying variety of urban agriculture (UA) activities. The area with its access to variety of resources provides agricultural space in the inner city. The agricultural activities in Sur have been receiving both encouraging and deterring reactions of planning authorities.

On the other hand, Sur is undergoing an urban regeneration project with the collaboration of Diyarbakir Metropolitan Municipality, Sur District Municipality, Housing Development Administration of Turkey (TOKI) and Diyarbakir Governorship. Except for these actors, the Municipality gathered different stakeholders in a workshop by Les Atelier³ in 2011 for upgrading one of the settlements in a more participatory way. This is explained more in detail in Box 1 and 4.2.2 Physical changes in Sur and urban regeneration project. Shortly, the project is designed to revitalize Sur physically with an emphasis on its historical structures. Most of the informal settlements have been demolished, and their inhabitants are moving to mass housing area built in the outskirts of Diyarbakir. Since the project is causing demographic and physical changes which also impacting UA activities there, the project forms an essential component for analyzing planning policies

³ Research done by Les Atelier prior to the workshop is also greatly used as a resource in this thesis.

(see 4.2 Diyarbakir and the study area – Sur). In order to understand its significance, resources necessary for UA in the new mass housing area will also be discussed in comparison to Sur area.

Based on all findings about the potentials and risks of UA in Sur and new mass housing area, the role of planners for enabling agricultural potential in the city are discussed. To understand planners' role in it I benefit enabling paradigm which is a theory developed for housing policies normally. I adapt the suggested attitude for the professionals in Diyarbakir for enabling livelihoods strategies. As will be mentioned in theoretical framework, livelihood framework is used as a guide in this study to understand the importance of resources for UA.

1.3 Aim and research questions

The aim of the thesis is to investigate the role of planning policies on integrating urban agriculture in Diyarbakir, Turkey.

Research questions were formed in reference to issues such as the characteristics, potentials and challenges related to UA in Sur, and its utilization as an urban livelihood. In regards to that, it asks to what extent planning professionals have a role in its integration in city planning. The role of formal planning processes deciding on inner urban area development needs to be discussed in relation to UA which is mostly pursued informally in most cases. The following questions are the main concerns of this study:

- What are the potentials and risks of UA in the informal settlements located in Sur area in Diyarbakir?
- Has UA been included in planning policies in Sur? How? Are there any indirect policies influencing UA in Sur i.e. urban transformation project?
- How important is UA as an urban livelihood strategy for the urban poor in Sur, and what is its potential? Is it recognized as an urban livelihood strategy in Sur?



Picture 2. Urban agriculture is becoming increasingly important for sustainable urban development The model from the exhibition *Our Global Kitchen* showing food production in urban environment (Source: Our Global Kitchen, <http://rovinggastronome.com>)

- How is UA perceived in terms of provider/enabling paradigms by planners and politicians in Diyarbakir?

The study will utilize written sources based on studies done the area before; and oral sources based on a three weeks field trip. The main reference point is the interviews held with urban farmers, non-farmer citizens and planners to dig out their motivations, perceptions and actions towards UA.

1.4 Delimitations

This study of UA distinguishes its scope from agricultural discipline, and does not touch upon the subject of agricultural products or applied agricultural techniques in the study area. Economics also stands outside its focus because there is no direct result about the income generated by UA in general or in specific to Diyarbakir's urban center. It benefits different perspectives of social, economic and environmental returns and discusses those outcomes in relation to urban planning. Planning paradigms of modernist paradigm and enabling strategy are the main pathways of this study to be able to come up with new suggestions.

2. THEORETICAL FRAMEWORK

In this chapter, different definitions and conceptualizations of urban agriculture (UA) as well as various approaches towards it in terms of urbanization, informal settlements, and livelihood strategies are brought up to be able to comprehend the case of Diyarbakir in a more holistic way.

2.1 Urbanization

In this section, impacts of urbanization and urban growth are under focus especially in regards to low-income countries, and in relation to UA. Before going into detail with urbanization, it is good to define the differences of terminology related to urbanization. According to Vestbro, urbanization denotes “the increase in a country’s population living in settlements classified as urban”. On the other hand, ‘level of urbanization’ refers to “the proportion of the total population that live in urban areas” (2011, Vestbro, p.1). Another term is ‘rate of urbanization’, which implies the growth of the urban population in comparison based on years and generally measured in percent (Vestbro, 2011).

2.1.1 Impacts of Urbanization in Low-Income Countries

In 2050, 67% of overall world population is estimated to live in urban areas. Urbanization will be pacing in both developed and less developed regions of the world. Urban population in developed regions will likely be 86% of the total, while in less developed regions 64% will likely account for that (United Nations, 2012, WUP). Urbanization impacts on

cities in three important ways as put by Vestbro: homelessness, informal settlements and urban sprawl (2011).

Inadequate infrastructure and housing supply may result with homelessness. Migrants may be under the threat of ending up with no shelter in case of lacking economic resources, institutional capacity and professional skills to tackle urbanization (Hamdi, 1991 cited in Vestbro, 2011).

The second possible outcome is the emergence of informal settlements and slums, which usually augmented in a rapid urbanized city with “lack of economic resources, political will, appropriate legislation and institutions to meet the demands for housing and associated infrastructure” (Vestbro, 2011, p.24). Correa, an Indian architect and planner who is working on low cost shelter, states that informal settlements seen as a challenge for public authorities and mostly being looked down and seen as unhygienic, ugly looking and center of crime (Correa, 1989).

After the 1980s the view towards informal settlements shifted into a new line. According to UN Habitat’s assessment mentioned by Vestbro, compact urban areas are realized for its cost-effective infrastructure. Modernist housing model used generally as a way to transform informal settlements, as also acknowledged by Hamdi did not bring desirable results in most of the low-income and many middle-income countries (Hamdi, 1991 cited in Vestbro, 2011), (see 2.2 Planning Paradigms for different approaches).

Third impact of rapid urbanization is urban sprawl defined as “expansion of urban areas without efficient land use” (Vestbro, 2011, p.25). Urban sprawl in low-income countries has similar outcomes as in industrial countries. Seizure of land for food production and

increased costs of infrastructure are some important results. They may of course lead to other outcomes such as longer commuting times and unaffordable travel costs (Vestbro, 2011).

2.1.2 Urban growth in favor of urban agriculture

Except for the outcomes mentioned above high level of urbanization accompanied with high level of density could lead to urban growth jeopardizing UA since no space is left for agricultural activity. In addition, urban growth based on sprawl tends to engulf arable land because of the desired proximity to a productive food source. It may boost urban centers' footprint over agricultural land (Redwood, 2009).

The way to deal with the urban growth could diminish its undesirable effects on UA as suggested by Correa (1989). Accordingly, to deal with rapid urban growth, more urban land needs to be generated at a rate, but intervening in urban form could provide desirable results. For example, polycentric growth is an alternative way proposed to plan better urban systems. Random development can be avoided by balancing the pressure point of urban form by launching new growth centers. In such a polycentric structure, accessibility to work opportunities with a good proximity to public transport could facilitate better land services in a growing city (Correa, 1989). More importantly, land for UA would be protected against urban sprawl by protecting the surrounding urban land or against a very dense structure by distributing dense population into different centers.

Another scenario suggested by Correa is to change conventional outlook at cities and towns that is based on urban/rural distinction. One could think of new community types such

as *quasi-urban/quasi-rural*, "which produces densities high enough to support an educational system and other services, yet low enough for each family to keep a buffalo or a goat and a banana tree" (Correa, 1989, p.106). Residential density, decreased to 50 households per hectare, could be still feasible to belong to central sewage system and recycle waste (Correa, 1989). Vestbro also shortly mentions other combinations of rural and urban elements. Similar Correa's urban-rural model, villages with "more educational and commercial facilities" are exemplified as the "urbanization of the rural". Increased farming activities in the cities of low-income countries make the *ruralization of the urban* also possible. As a quasi-urban example, *ruralization of the urban* could take place in the outskirts or suburbs where larger plot size allowing more green areas (Vestbro, 2011, p.3)

2.1.3 Urbanization and urban agriculture

The growth of UA is also considered as a relatively new trend, although it has a long history in some cities (Bourque, 2000). Actually, it is not hard to see that UA was one of the very urban practices back in the ancient times as Redwood mentions. Although recent European agricultural history assumed agriculture and city as separate and distinct entities because of the clear-cut division between urban and rural (Redwood, 2009), it has not been this way throughout the history.

According to Smit, UA was one of the main sources of food supply for urban inhabitants also in ancient civilizations utilizing closed-loop systems where UA served as the main treatment and disposal method. It helped to sustain urban ecology by benefitting standard practices like cultivation and animal

husbandry (see 2.2.2 UA Potentials and risks *Marais System*) (Smit et al., 2001).

Garnett states that it has been only 200 years since cities became associated with modernization and success, only a few generations after rural features started to diminish from cities. Urban population and food production started to split in the Victorian Industrial Revolution following dense urban development, decreased green space, and better transport system between the city and its hinterland (Garnett, 1996 cited in Bohn et al., 2005). In the second half of 19th century as urban centers grew in size, urban waste in urban areas started to be used in a less degree and after a while was displaced as 'modern' sanitation systems were introduced. 'City beautiful' and 'city healthful' got recognized as new urban ideals. Traditional agricultural systems in most developing countries also started to be displaced with modern agricultural systems which made the urban recycling schema less visible (see 2.3.2 Risks and Potentials of UA for the closed loop urban ecosystem) (Bohn et al., 2005).

2.2 Planning paradigms

Where do politicians and planners position themselves with regards to amplifying the volume of UA as a livelihood strategy for urban poor? That question is not a recent curiosity, but has been raised quite often in the realm of public housing via different planning paradigms. Therefore, in this section the attitude of professionals such as public authorities, urban planners and architects affecting the built environment are explored through two housing paradigms. Based on the how the professionals could have an active role in enabling livelihoods will be questioned. First, the modernist model will be explained, followed by critique of the provider model.

2.2.1 Provider and Enabling Models

There are two distinctive paradigms reflecting housing concerns and ways to supply housing: chiefly top-down provider model-modernist housing policy and its opposite paradigm-enabling strategy. Hamdi distinguished them through three tenets of design and planning practice: participation, flexibility, and enablement (Hamdi, 1991). Central/decentralized housing is highly relevant topic in their agenda, while the views on informal settlements seem to be diverging. Figure 1 elaborates the main differences between provider paradigm and supporter paradigm which will be referred as enabling strategy in this study. Based on Vestbro's definition, "supporter paradigm" is referred as "enabling strategy" because the word "support" resembles that public support is more fundamental for this model (Vestbro, 2008).

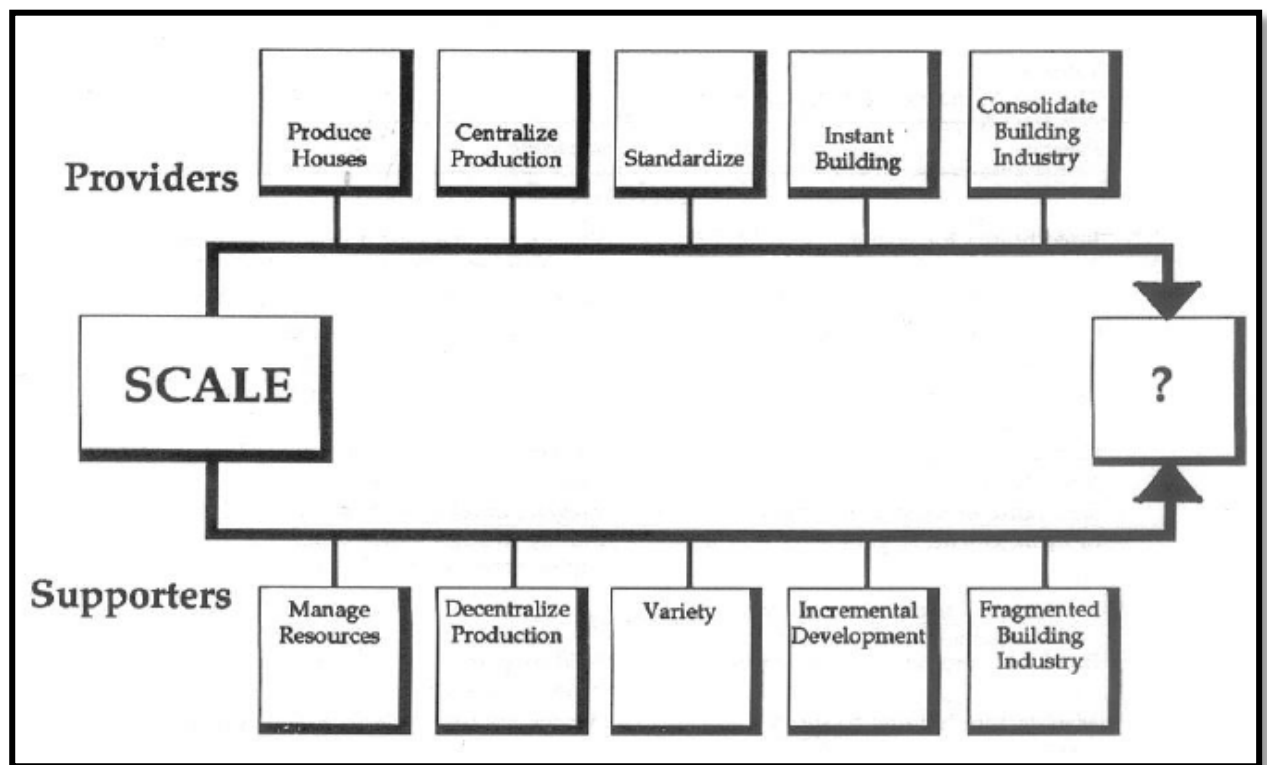


Figure 1. Main elements of provider and supporter (enabling strategy) models, as conceived by Nabeel Hamdi. The question mark indicates the possibility of combining the elements of two paradigms (source: Vestbro, 2008).

In housing supply, provider model defends pro-centralized system by improving the quality of houses under the control of public authorities. It asserts that housing supply will stop falling short of demand only after as many housing is produced for everyone. Hence, it aims to produce more houses by rationalizing the housing supply through mechanization and Taylorization. It manages production system of housing components centrally by consolidating building production with large housing projects which are instantly built for faster progress. Usually, the design process is standardized to reach feasibility and higher production levels. Massive production and supply of housing is thought as a means to boost economy, create employment and improve living standards for everyone including the poor. In that framework, the main actors are consultants, government

agencies, funders, or large contractors and developers (Hamdi, 1991).

On the other hand, as argued by Vestbro provider model did fall short of improving the housing situation in most countries since required preconditions of a successful provider model did not match with the ones in low or middle income countries. The model was applicable only in a few European countries (Vestbro, 2008). In Vestbro's research (2008), Sweden acknowledged for achieving to implement modernist housing supply successfully used to embody the preconditions for modernist housing system owing to its industrialized economy. More different from in Sweden, in Tanzania industrialization was not mature yet; thus, the preconditions were not present in full extent to implement provider model. To succeed it, there must be "high productive forces" and

considerable rates of GDP, “consolidated building industry; good tax base, to be used for subsidies; strong state, will to prioritize housing; efficient administration, low corruption, research support; appropriate legislation & institutional set-up and new planning education” (Vestbro, 2008. p.8). Furthermore, engagement of professionals like planners, architects and policymakers to create good design solutions for working class is crucial (Vestbro, 2008).

In the 1960s John Turner working as a housing consultant in Lima-Peru’s capital had the opportunity to observe the squatters, and later he argued for new ideas that later became the basis of the enabling paradigm. According to Turner, “invaders” in Lima planned and built their settlements efficiently, skillfully and organized. Legal loopholes had been uncovered and planning professionals consulted for the layout of invaded area. His conclusions about the formation and existence of informal settlements asserted a new perspective missed by professionals who were in favor of tearing them down and replacing with ‘proper’ housing in the monopoly of regulators/public sectors. Turner’s observations criticized provider policies for their inefficiency to meet the needs and inappropriate scale of production (Vestbro, 2008).

Preference of urban poor in terms of accommodation is an important aspect to understand enabling strategy. Turner’s diagram (Figure 2) shows that rationale under which circumstances urban poor upgrades the shelter. Primary thing would be seeking work that is more likely to find if the jobseeker lives in proximity to commercial area since affordable transportation costs are always part of their concern. After being employed distance to work becomes tolerable improvement of housing facilities can become

part of their housing concern. Since the dweller is a low-income earner, maintenance of the house would be done with low quality materials. Still in all conditions initial priority is the tenure security prevailing over housing facilities. (Vestbro, 2008).

Enabling strategy came into scene in next decades after Turner’s ideas started to become challenge modernist paradigm in academic circles. That paradigm which came up as a critique to the provider model is described with “active community participation, gradual slum upgrading (instead of slum-clearance), self-help construction techniques, relaxed space standards, and formalization of informal settlements” (Vestbro, 2008). Accordingly, authorities should be assisting and enabling poor in order to solve their housing problem. The main actors in that framework are “families, community groups, tenant organization, NGOs, nonprofit and voluntary organizations, government agencies, small contractors, funders, formal and informal private community developers, consultants” (Hamdi, p.29). Individual experiences and local communities are given agency for improving living conditions of urban poor for whom affordability is a huge concern. Hence, there is an increased type of housing with smaller sizes in comparison to the houses produced in providing model. Hamdi asserts a decentralized supply system would let people to build faster and incrementally, only that public authorities should allocate resources to people as a means to manage their own resources in flexibility (Hamdi, 1991).

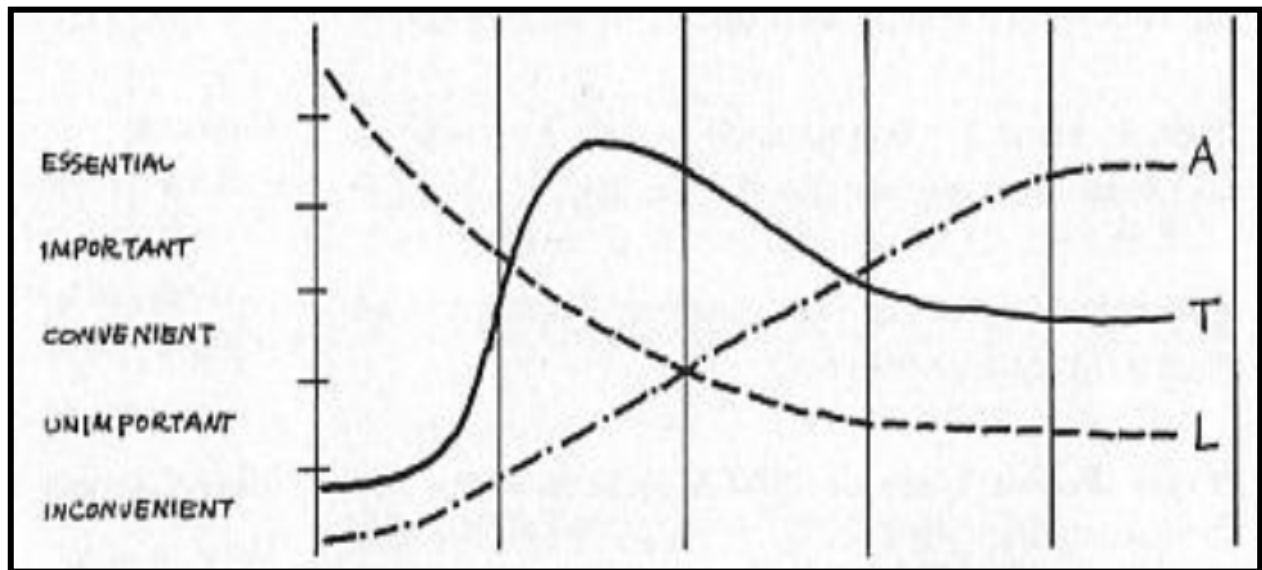


Figure 2. Turner's diagram. Turner's theory on the priorities of the urban poor in respect to housing. A=amenities; T=tenure; L= location. On the left side are those who are without any income at all. For them localization near job opportunities are absolutely most important for survival, while security of tenure and amenities such as infrastructure and the house are less important. In the middle, there are the urban inhabitants who have a regular and limited income. For them land tenure becomes more important than distance to job opportunities while the house itself has lower priority. On the right we find those with higher income. They can afford transport cost. When they have secured land tenure they can start giving priority to amenities such as water, hard-surface streets, drainage and the house itself (source: Vestbro, 2008).

Enabling strategy has potential for a pro-poor development through adapting to local needs and context. In terms of form and design, modernist blocks are heavily criticized for neglecting social and cultural needs of the people as well as the urban fabric. The role of form and design for adapting to local needs is explained by Correa in his book *The New Landscape: Urbanization in the Third World* (1989). He depicts that space is a resource, and therefore he criticizes central low-cost housing administration for massive production of houses by piling up dwelling cells. That neglects local housing systems and spatial hierarchy. Hierarchical use of space could differ based on culture, climate and religion. Disregarding it could lead to “inhuman, uneconomical and unusable” environments to live. Activities such as meeting with friends, cooking, sleeping, and children’s play do not necessarily take place indoor, and courtyard serves as an optional place for such activities. Various households can share a viable outdoor common area like a courtyard and use it efficiently which also serves to compensate the lack of covered space. There is a trade-off between open-to-sky and covered spaces especially in hot climates. It increases potential of living space entailing practical and necessary options for urban poor. A small low-rise building developed incrementally and flexibly in time has more potential to be sensitive to social/cultural/religious determinants of the environment, which in turn creates a wide array of housing types. On the other hand, detached indoor space from outdoors may cause inefficient use of space, less flexibility and adaptability for tropical climates (Correa, 1989).

Except criticizing provider model enablers favor incremental building instead of instant delivery of houses because “scaling up the supply of housing without risking bankruptcy and without displacing entire population’s

means building incrementally, precisely as people in informal developments do” (1991, p.31). This would make housing, communities and small businesses flourish in the built environments, which could later pave the way towards employment opportunities, wealth accumulation and improved health conditions in communities. With the existence of small builders, housing is part of larger urban development system. Additionally, enabling strategy opposes the idea of that central housing production will boost the national economy. Hamdi asserts that although massive scale of production could make a difference for national economy, it would stay abstract for the well-being of poor communities. It serves “to target whatever land, labor, and capital to encourage consumption rather than to satisfy human needs” (Hamdi, 1991, p.30). This model could be successful for boosting the supply system, but have a less significant role in taking care of individual needs because of the massive and rapid building process of housing (Hamdi, 1991).

2.2.2 Thinking about attitude of housing professionals

Turner’s ideas were a breakthrough on generating alternative housing policies. However, as Vestbro explains Turner’s points did not find immediate ground at shaping public authorities’ standpoint to tackle the housing problems which avoided paying attention for the local conditions and needs of urban poor (Vestbro, 2008). Despite its outreach to academic institutions and international organizations, and being integrated in housing practices for a long time, Turner’s ideas finally found platform in Habitat II conference in 1996. In the Conference, discussions about the provider model and its malfunctioning took place as

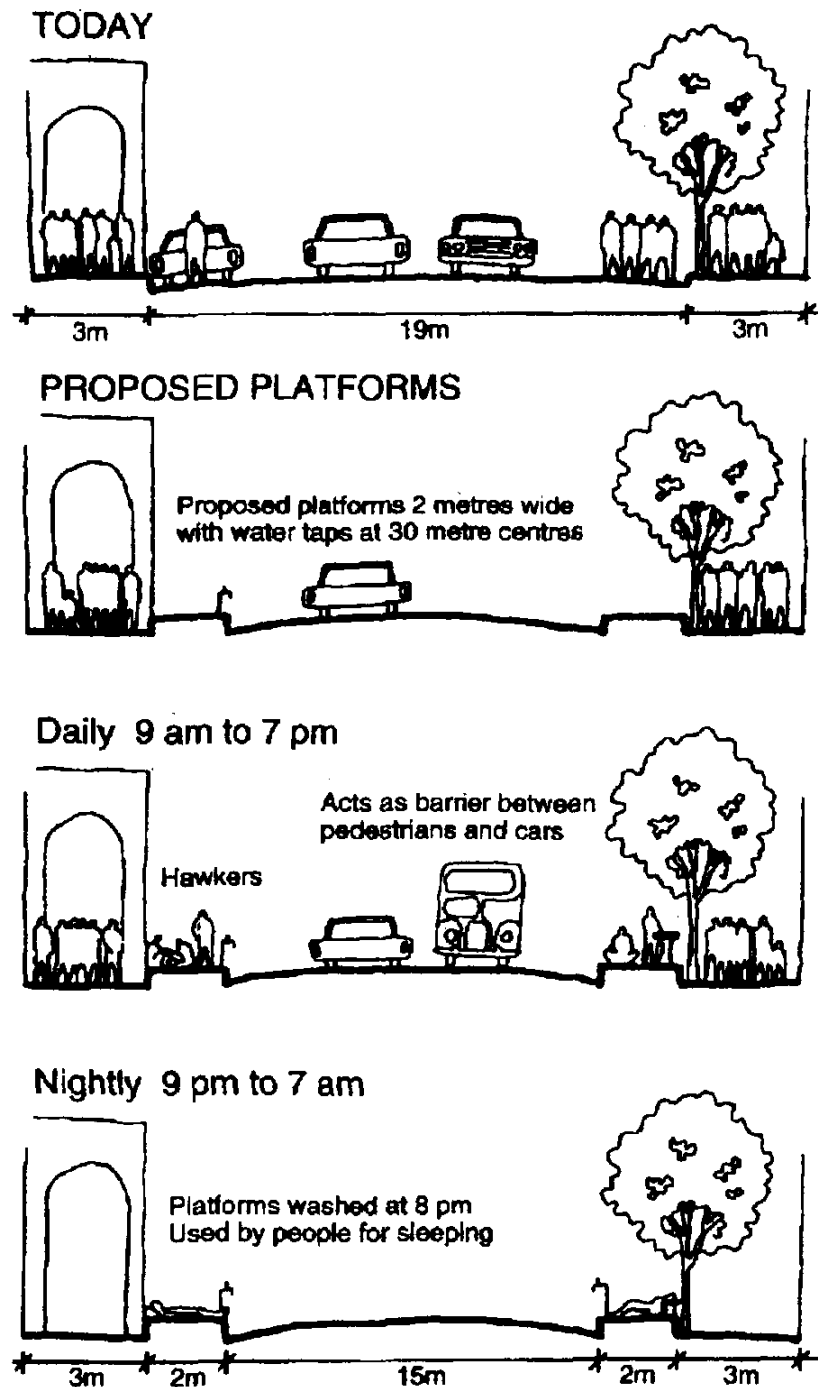


Figure 3: an example of including local realities into planning as enabling strategy proposes. It modifies Bombay's streets with an extra platform to be used by hawkers during the day and by other people to sleep there at night (source: Correa, 1989; 110).

well as the enabling model. Nevertheless, it remained distant to decision-makers since “they were not prepared to embark on a policy that meant legalization and upgrading of slums” (Vestbro, 2008, p.7). Recognition of enabling model in *de jure* did not make this model *de facto* for decision-makers.

Correa suggests that in the course of rapid urbanization especially in the ‘Third World social system and lifestyle of new settlements are needed to be taken into account for urban growth’ by planners and architects. Housing units are crucial in that sense. Living patterns in a city could generate more innovative housing solutions by utilizing comprehensive approach towards the micro-scale urban context rather considering housing as only a matter of shelter. Depending upon the context such a holistic view provides advantages like pursuing the life patterns that one is accustomed to. A migrant family coming from rural context could have a chance to pursue rural, agricultural customs in the city in a more harmonized way (Correa, 1989).

Hamdi asks how architects, planners, engineers, economists, and sociologists could have a role in shelter and in urban housing as a part of enabling strategy (1991). Especially design, building and form making are very relevant for the architecture profession. However, concerns like shelter, poverty and homelessness and aid are not only the business of planners but also of architects. As the criticism of modernist model depicts, architecture profession like the planning practice is neither in touch with the realities of shelter nor the needs of people “as it is currently confined within the art and the politics of the special and the monumental rather than the ordinary”(Hamdi, 1991, p.9). Hamdi depicts that architects seem to serve for the wealthy one and the demands of a

massive client body. So, should they leave the housing issues to be solved automatically or should they change the way they approach these issue? Hamdi alerts planners and architects for ethical correctness at housing and urban development projects that they are involved in by being aware of who are the clients or organizations they are working with and in which context they contribute with their work (Hamdi, 1991).

2.3 Urban agriculture (UA)

In this section main definitions and concepts about urban agriculture (UA) are discussed as well as its relationship with sustainable urban development. In addition, both positive and negative impacts of UA and what kind of and myths towards it exist there constraining it to become a viable industry. As Smit et al. put forward “urban agriculture is a poorly understood industry” (Smit et al., 2001, p.4), and its possible benefits could be lost sometimes behind myths which are the products of cultural, planning and policy biases towards UA (Smit et al., 2001).

2.3.1 Defining Urban Agriculture bring contradictions

Urban agriculture is perceived and defined in various ways by different researches (Quon, 1999). During my review of urban agriculture, it became apparent that concept and characteristics of UA are approached from different perspective (Mougeot, 2000; Smit et al., 2001). General features of UA area defined UA are as follows according to Mougeot:

- Types of economics activities,
- food/non-food categories of products and subcategories,

- intra-urban and peri-urban character of location,
- types of areas where it is practiced,
- types of production systems,
- product destination and production scale (2000).

Defining UA is rather more complicated due to various ways to describe it. Santandreu and Adam emphasize that defining the UA depending upon its context specifically is crucial rather than using the “pre-established” concepts (UA Magazine, 2005). Still, on conceptual framework UA is generally referred as a recreational activity or a tool for beautification of cities according to Smit et al. Finding such descriptions less miscellaneous, Smit et al. depict UA in a multidimensional way with its economic, environmental and health impacts on urban life:

Description #1: ...an industry that produces, processes, and markets food, fuel, and other outputs, largely in response to the daily demand of consumers within a town, city, or metropolis, on many types of privately, publicly held land, and water bodies found throughout intra-urban and peri-urban areas. Typically urban agriculture applies intensive production methods, frequently using and reusing natural resources and urban wastes, to yield a diverse array of land-, water- and air-based fauna and flora, contributing to the food security, health, livelihood, and environment of the individual, household, and community (Smit et al., 2001).

Another description is created by Mougeot:

Description #2: UA is an industry located within (intra-urban) or on the fringe (peri-urban) of a town, a city or a metropolis, which grows or raises, processes and distributes a diversity of food and non-food products, (re-)using largely human and material resources,

products and services found in and around that urban area, and in turn supplying human and material resources, products and services largely to that urban area. (Mougeot, 2000)

Smit et al. focuses on generated benefits by UA while bringing up producer/consumer and supply/demand relations. UA is described as an industry elaborating its economic side in both of them; while Smit et al. takes it as a ‘product’, which could not be the possible case for every UA activity. As Veenhuizen points out, agriculture within cities could differ based on various functions ranging from monetary terms till aesthetical or sentimental values (Veenhuizen, 2006). Different than Mougeot, Smit et al. imply UA in terms of livelihood perspective more directly. Accordingly, UA contributes “to the food security, health, livelihood, and environment of the individual, household, and community” (Smit et al, 2001). Such a direct emphasis sounds crucial for this research which studies inhabitants in an area mostly populated by urban poor.

On the other hand, UA also could be defined as Mougeot does with an emphasis on the relationship between urban farmer and resources used in it. UA is different from rural agriculture due to its integration into the urban economic and ecological system. It is strength of UA that makes the local food system less dependent on rural or foreign food supply (Mougeot, 2000). Significantly, different than Smit et al., Mougeot defines UA as an activity benefitting services as well as other resources of urban metabolism. It integrates local urban economic and urban ecological system. In that definition urban farmer is embedded as an actor in urban metabolism, and that is why this definition is a reference point for this study. It helps to study the network among different farmers.

Lastly, location seems to be a controversial issue in UA literature review done by Mougeot. Sometimes called as metropolitan-intensive agriculture, it is conceptualization varies based on its location as urban or peri-urban. However, it is hard to define it that way because one farmer living in the inner city could have a farm on the outskirts of the city. Also, depending upon the transport options farmers could be even tied to more remote places (2000). On the other hand, its location distinguishes it from the rural agriculture because UA mostly brings up products that require proximity to the urban markets such as “perishable vegetables, fresh milk, flowers and ornamentals for export, poultry and chicken meat” (UMP Newsletter, 2002). In that sense, relying to its location which could be urban or peri-urban zone, UA complements rural agriculture instead of competing with it (UMP Newsletter, 2002).

2.3.2 Potentials of urban agriculture

Various studies have been done on the effects of urban agriculture in developing countries. UA has been investigated from various standpoints such as its relation to the food chain and whether it helps to alleviate the poverty or empower the community as well as women’s role in the community (Mougeot, 2000; Garrett, 2000). It is suggested as a fundamental activity for the economic and food security for many urban citizens and local urban development while bearing economic significance for millions of people throughout the world (Smit et al, 2001). According to various organizations⁴ it addresses the needs for sustainable urban development and environmental protection (Jacobi, et al. 2000). It may contribute to social inclusion,

community building, urban waste management, green urban environment, and adaptation to climate change (Dubbeling, 2010) or for both mental and physical health (Howe et al, 2006).

Socio-economic benefits of UA are widely studied and documented to date (Quon, 1999). UA is viewed as complementary to the rural supply of food instead of replacing it. According to Mougeot, UA as a household supplement generates small scale of food, provides food security and contributes to alleviate urban problems such as poverty and hunger (Mougeot, 2000b). Some other sources also convey that self-grown food ensures better quality, lower cost, and much more accessibility than purchased food (Dennery, 1997; Quon, 1999). UA may contribute positively to nutritional status of household members which is measured based on caloric and protein intake, meal quality and children’s growth rates according to the studies done in Harare, Kampala, and Nairobi (Mougeot, 2000b). Significantly contributing to the socioeconomic development, Smit et al. indicate that it is one of the largest productive urban industries especially in developing economies (2001). It provides jobs in low-income cities and provides opportunities for people having different level of incomes.

For the poorest of the poor, it provides good access to food. For the stable poor, it provides a source of income and good quality food at low cost. For middle-income families, it offers the possibility of savings and a return on their investment in urban property. For small and large entrepreneurs, it is a profitable business (Smit et al, 2001).

Economic benefits of UA are not easy to assess. Although the production levels and turnover of individual urban producers in

⁴ Organizations such as FAO-COAG (FAO Committee on Agriculture), IFPRI (International Food Policy Research Institute) and TUAN (The Urban Agriculture Network) (Jacobi, et al. 2000).

many cases will be small, the high number of urban producers in each city makes their

overall contribution to the urban economy highly significant, generating employment for many poor urban households and providing incomes equivalent to or higher than the official minimum wage (Moustier and Danso, 2006 cited in Dubbeling, 2010). For instance, the households growing vegetables in Addis Ababa save 10-20% of the household income in, and even could sell excess crops, whereas in the district of Dar es Salaam in Tanzania UA is the second largest employer (Quon, 1999). Especially, the high-valued specialty foods such as mushrooms or non-food products such as ornamental flowers are good for providing cash despite of the little space required for its production (Mougeot, 2000b).

Still, producing their own food could save tens of millions of dollars in any particular major city. According to UNDP 800 million people around the world are engaged in UA dominantly in Asian cities which moved forward with producing self-sufficient, higher

valued and nutritious perishables. 200 million of these are considered to be market producers, while 150 million people are full time employed in this sector (UNDP 1996 quoted in Mougeot, 2000b). As a crucial source for obtaining food security by urban poor as well as food system in developing countries, UA supply 15% of all food consumed in urban areas, and is estimated to double that rate in upcoming decades (Mougeot, 2000b).

Last but not least, UA may also contribute to the social integration of disadvantaged groups including immigrants, HIV-AIDS affected households, disabled people, as female-headed households with children, elderly people without pension, and youngsters without a job (Veenhuizen, 2006). Bailkey (2007) depicts that it could contribute to people in need “providing them an opportunity to feed their families and raise their income, while enhancing their self-esteem, self-management and entrepreneurial capacities” (Bailkey et al. 2007 quoted in Zeeuw et al 2010, p.155). It

BOX 2. MARAIS SYSTEM IN PARIS-FRANCE

Marais system in Paris is one of the exemplary cases combined food, waste and transportation systems. One million tons of stable manure was produced annually by the horses that were the main means of transportation during that time. Production area was increased around 6% per year by this extra ‘soil’. Marais system reached its highest efficiency in 19th century and started to decline at the beginning of 20th century due to the emergence of motor vehicles, competition for land in the city and competition of crop production with better climates. Fifty kilograms per capita of fresh salads, vegetables, and fruits were produced annually, which exceeded consumption levels. Products were exported to as far away as London. Furthermore, because the maraîchers were interested primarily in maximizing financial returns, they concentrated on high-value, out-of-season winter crops and neglected the higher-yielding but lower-value summer crops, although annual production could have been even higher. That urban agro-ecosystem, producing “100,000 tons of high value, out-of-season salad crops” outcompeted most of the fully industrialized crop production done today, while it could also overtop the efficiency of modern urban ecosystems in terms of requirements and consequences (Smit, 2001).

contributes to enabling women to earn income and take more control over their household resources since around 65 percent of the world's urban farmers are women. According to Mougeot, extra attention given to gender aspects within UA framework may contribute decreasing women's burden of work (Mougeot, 2000b).

UA is also remarkable as an environmental tool against soil erosion and non-polluting land use type by decreasing the air pollution, truck traffic and expanding planted area and green space, and for building urban forests. It is regarded as an influential tool to improve the quality of urban soil, air, water and living environment by disposing much of the solid and liquid waste of cities in closed-loop system. Smit et al. elaborate that it closes the urban open-loop ecological system by taking urban waste out and resources in (2001). Marais System in Paris (see Box 2) used to stand as one of its examples, which has disappeared from Paris around 100 years ago.

Some consider UA to be aesthetically inappropriate and unappealing in urban areas. UA could beautify the city by farming or well-managed animal grazing and by generating green space around the road and in vacant lands. It can be utilized to keep cities clean by recycling urban wastes. Nevertheless, as UA generates both economic and environmental implications for cities by providing it with *edible landscape*. Commonly, in the urban landscape, industrial and commercial areas are often considered productive more different than open spaces which are considered as recreational and aesthetic, rather than productive. Urban agriculture creates a green and aesthetic landscape that is at the same time providing higher returns from economically inefficient sites (Smit et al., 2001). Smit's concept edible landscape can be described as follows:

...street trees bearing fruit, ponds and rivers producing fish and water vegetables, hillsides yielding fuel, and formerly vacant lots growing vegetables. This landscape is then fecund and brings high returns to the cultivator or breeder (Smit, 2001, p10).

UA limits the harmful impacts of urban areas on rural lands in juxtaposition. Increasing natural area in cities including farming and food production lowers the pressure on natural areas (Quon, 1999).

Also, UA has been recognized for its tangible and intangible benefits already:

Urban agriculture, without a doubt, is an activity that should be promoted and developed in order to provide food for home consumption, for urban residents with limited resources. As well, this kind of activity will allow us to reestablish contact with nature, something that has been lost in large urban centers. Respect for nature, on top of food production, will be one of the benefits of urban agriculture.

-Executive Director of Environmental Management and Protection, Secretariat of the Environment, Mexico D.F (Quon, 1999, p10).

Despite of its numerous benefits, Quon considers it is important to discover more about how UA safeguards sustainable urban environment and its impact on carbon footprint (Quon, 1999).

2.3.3 Risks of urban agriculture

While UA has several benefits on circulation of urban metabolism, it could also create environmental contamination. Despite its benefits, UA could be environmentally hazardous by polluting soil, water, air, and living environment, which is true in case of misuse of agrochemicals. Properly done urban farming could actually bring environmental

gains instead of harms. Nevertheless, while UA is mostly regarded for mishandling of agrochemicals threatening the urban environment, it could not be generalized since mostly the urban poor use organic waste for being unable to afford buying fertilizers etc. (Mougeot, 2000b).

Although UA has positive impacts on public health by providing nutritious rich food for urban poor, malfunctioning in UA may endanger public health. Health problems based on food contamination can emerge as a result of inappropriate farming practices such as wrong use of fertilizers, pesticides, or untreated waste products, and farming where air, water or soil is polluted (Mougeot, 2000b). While cultivating vulnerable crops to prevent the application of “unsorted or insufficiently treated solid and liquid wastes” is also critical (Armar-Klemesu, 1999; 108). On the other hand, Armar-Klemesu depicts contaminated urban grown food not to pose a bigger threat than the food bought at local markets or grown in suburban allotments. Without growing ecologically, the food is treated with an array of chemicals including the production of meat and dairy products (Armar-Klemesu, 1999).

UA is also criticized for not being hygienic. Urban farming is not an activity that is intrinsically unhygienic. Nevertheless, it must be taken care of in advance due to its impact on large populations. Improper practices of reusing solid and liquid wastes, contaminated food crops, rearing livestock as well generate threat for living environment by carrying parasites, bacteria and viruses in addition to unpleasant smell. If it gets well integrated with urban land and waste management systems, hygiene would be improved sustainably by using the waste as a production input (Smit, 2001; Armar-Klemesu, 1999).

2.4 Urban Livelihood Approach

Livelihood approach and livelihoods framework is introduced and the former is described in regards to resources mobilized for UA. Livelihood approach is a people-centered approach which “views poor households as being dependent upon a diversity of strategies in order to face urban poverty” (Villavicencio, 2009). Since urban poverty also exists in Sur, different resources are utilized for enhancing one’s own livelihood (Picture 3). These strategies mostly rely on some assets exemplified as social and political assets and access to various resources. Besides, external influences such as “regulations, policies, urban authorities and local marketing practices” are also dynamics that livelihood approach considers (Villavicencio, 2009, p.52). A livelihood is sustainable as long as it is conditioned to urban systems which are resilient towards stresses and shocks and to protect its natural resource base, and enhance its capabilities and assets (Scoones, 1998, quoted in Rakodi, 2002 p.18).

In livelihood approach, poverty is not discerned through passive or deprived concepts. Poor households may have other assets, strengths, power and skills to implement rather than their weaknesses. For instance, deprivation of cash or saving could be compensated with these actors’ material or non-material assets. Those assets are their health, “their labor, their knowledge and skills, their friends and family, and the natural resources around them” (Rakodi, 2002, p.10). Brown and Jones say that assets are important criteria which needed to be referred by urban planners while addressing the needs of poor household and communities (Brown, Lloyd-Jones, 2002).



Picture 3. Being a porter or hawking trader is one the informal sources generating income for the households in the study area (Source: Savaş Boyraz, 2009, Ben u Sen Project).

Rakodi suggests that poverty is much more complex than thinking in terms of poverty line. Therefore, looking at livelihoods through a holistic⁵ method with the potential of examining complex issues to larger extent makes the stakeholder approach necessary (Rakodi, 2009). It investigates the issues from individuals, households and social groups' perspectives who develop livelihood strategies in unsteady and unsafe conditions (Redwood, 2009; Rakodi, 2002). Stakeholder approach involves the differences in the structure into the process by providing the commitment of local communities, urban government, in

addition to private, public and civil society actors (Haan et al. 2002). Therefore, co-action among development, environment and livelihoods becomes important to observe while collecting data for urban analytical processes that is also stated by Carney et al:

Sustainable poverty elimination will be achieved only if external support focuses on what matter to people, understands the differences between groups of people and works with them in a way that is congruent with their current livelihood strategies, social environment and ability to adapt (Carney et al., 1999 cited in Rakodi, 2009, p.19).

⁵ Holistic view supports a better grasp of stakeholder's livelihoods as a whole including different dimensions. It is not necessarily an exact representation of reality; instead it is a controllable model to bring out the pressures people are facing independent from where they are (Gamper et al., 2002).

As an outcome of its holistic view, livelihoods framework could be especially beneficial in planning research in order to bridge research and policy that facilitate the multidisciplinary

research and involve great number of stakeholders (Redwood, 2009).

2.4.1 Sustainable Livelihoods Framework

At the core of livelihood approach there is Sustainable Livelihoods Framework (SLF) displayed in Figure 4 (DFID, 2000 cited in Gamper et al., 2002, p.4). Asset ownership lowers the vulnerability and provides the household with increased chance to withstand shocks. Policies and institutions could influence individual vulnerability in positive or negative ways. Livelihood system interacts with external environment made of natural, policy and institutional context (FAO, Module 1). Since this framework does not represent variety and richness of real life in full extent, it could be enhanced and better understood “by qualitative and participatory analysis at the local level” (Gamper et al., 2002, p.4). On the other hand, assets may enhance the livelihood (urban agriculture in that case) in various forms: human capital, social and political capital, physical capital, financial capital, natural capital (Rakodi, 2009).

Natural capital

Urban dwellers are indirectly or directly dependent on environmental assets of land, food, energy and water supply or air quality. It is especially important for the ones who make an important part of their livelihoods from natural resource-based activities (Gamper et al., 2002). In implementing UA access to water, energy and land are basic assets. As Meikle depicts land is an asset which is sometimes obtained via occupying it illegally, since legal ways of affording land is not accessible to urban poor; but, environmental contamination and threat of eviction makes it more vulnerable (Meikle, 2002, p.46). Access to clean and efficient amount of water is also a basic resource to conduct UA, and it is

sometimes limited in certain areas of cities. Lastly, urban waste especially the organic one is another important resource which is abundant in cities (Villavicencio, 2009).

Physical capital

Physical assets include basic infrastructure, production equipment that are hardly acquired by urban poor. Access to roads and transportation and proximity to opportunities, secure shelter, sanitation, affordable energy and communications increases chances of mobility for livelihood assets (Rakodi, p.17, 2009). Access to housing and legality of ownership is a spatial asset which provides access to bank credits as well. Mostly, urban poor owning illegal shelter, lack financial power to afford title to their property, and are unable to get bank credits. As De Soto states 53% of the homes in the cities are characterized as ‘extralegal’ because “they are traded in informal market without formal legal status” (de Soto, 2000 cited in Villavicencio, 2009).

Means of production like access to irrigation, harvesting, plough equipment, and access to horse or tractors also determine the livelihood. Relations with local labor or the ability to hire extra worker could also influence the production. Rearing livestock seems irrelevant with urban context, but animal breeding is a physical asset, and many urban residents involved in such animal husbandry. Even in downtown settlements, small animals such as rabbits and chickens are reared in crowded living spaces (Meikle, 2002, p.47). Animal husbandry provides a source of savings, which can be sold later to obtain financial capital (Villavicencio, 2009).

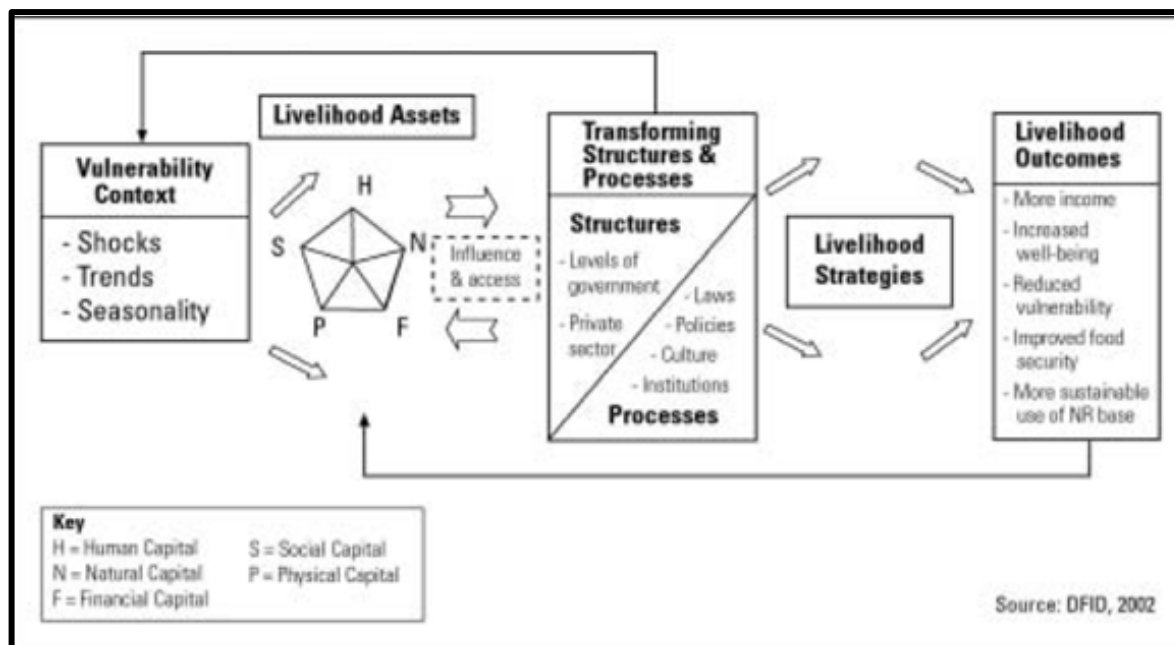


Figure 4. Livelihood Framework.

According to this model, stakeholders act in a Context of Vulnerability, while at the same time they have access to Livelihood Assets. Livelihood Assets are influenced by Context of Vulnerability and by Transforming Structures & Processes which represent the social, institutional and organizational environment. Livelihood strategies are under the impact of asset base and Transforming Structures & Processes (policy and institutional context) which represent the social, institutional and organizational environment. This picture determines the Livelihood Strategies that people get engaged with to pursue “self-defined beneficial” Livelihood Outcomes (Gamper et al., 2002). In a bigger picture, Livelihood Outcomes are impacted by Vulnerability Context - “people’s exposure to unexpected shocks – and their ability to withstand the shocks, which depends on their asset base” (FAO Module 1) (Source: DFID Sustainable Livelihoods Guidance Sheets, 2002)

Human capital

“Human capital represents the skills, knowledge, ability to labor and good health that together enable people to pursue different livelihood strategies and achieve their livelihood objectives” (DFID, 2002 cited in Gamper et al., 2002). Available labor assets for households have both qualitative and quantitative aspects. Qualitatively, household member’s health status, levels of education and skills are characteristics determining the human capital. For instance, right use of agrochemicals and appropriate UA practice is closely related to the educational level of farmers (Villavicencio, 2009). The latter refers to the available number of household members and their time available to work in that income-earning activity (Rakodi, 2002). In qualitative terms, local knowledge is produced by urban farmers in time by transmitting knowledge intra-generation or adopting innovative ideas against challenges. Mainly, it is the rural out-migrating population transmits agricultural knowledge and initiates UA in urban environment (Villavicencio, 2009).

Financial capital

Financial capital denotes the availability of cash or equivalent which enables people to adopt their own livelihood strategies (Gamper et al., 2002). Financial assets are significant and limited assets of poor people. According to Rakodi, financial assets may be important tools since they can be used to leverage other types of capital. Income and proportion of total expenditures that are made on food are chief financial indicators. Savings is a good financial asset for people, except for the urban poor who are deprived of regular income. For the same reason, loans and credits, that normally provide immediate financial support to people, are not very accessible to urban poor due to their lack of regular cash income and title to property (Rakodi, 2009).

Social capital

Social capital is a common socio-cultural element built on trust between individuals, networks or in other forms of organization. Durston suggests four layers of analysis for that: “the individual; closed small groups, where there is shared experience and a high degree of trust; the wider community where there are common interests and objectives; and external relationships and interactions” (Durston, 1999 quoted in Villavicencio, 2009). Averbeke implies that UA as a livelihood strategy for poor residents arriving in the cities from rural areas needs to be a part of urban planning (Averbeke, 2007), who studies urban farming in the informal settlements of Atterdigevill, Pretoria in South Africa. Accordingly, benefits of UA in the livelihood of

BOX 3. Access to Land in CARAPONGO-Lima

Villavicencio’s study on UA in relation to urban livelihood framework in Lima is a comprehensive example of the importance of assets for the UA. Accordingly, access to land could be quite volatile due to vague ownership, or recurring land use changes which could be very often in the emergence of urban sprawl. By the same reason, loans and credits – financial capital that normally provide immediate financial support to people, are not much accessible to urban poor due to lack of regular cash income and title to property. As in the case of Lima, only 14% of UA producers are known for having received bank loans (Villavicencio, 2009).

participants extend far beyond material gain.

2.4.2 Livelihood approach and urban agriculture

UA seems to be often used by vulnerable households in the periods of change. It could contribute as a household livelihoods strategy in the form of “cash savings, additional income, and improved nutrition” (Dennerly, 1996). For instance, Barthel et al. argue that it has been a way to increase resilience⁶ in times of geopolitical and economic crisis like in Constantinople during the Byzantium rule, which was under siege several times. It had strong resistance against blockades due to food security generated by ongoing UA practices inside the city walls in Istanbul (2010).

In times of macroeconomic climate getting volatile, food security is a major element under threat. As Redwood mentions, structural adjustment programmes in 1980s resulted in currency devaluations, increasing prices of basic goods, and removal of subsidies for food production. SAPs⁷ removed the critical resources for urban poor letting them find out new ways to survive, thus it triggered

⁶ Resilience is “the ability to cope, adapt and improve well-being, and also avoiding depletion of stocks of natural resources to a level which results in a permanent decline in the rate at which the natural resource base yields useful products or services for livelihoods” (Rakodi, 2002, p.18)

⁷ “Structural adjustment programs (SAPs) are a package of economic and institutional measure designed to solve macroeconomic problems in developing countries by reducing government intervention in the economy, correcting the borrowing country’s deficits and opening the country’s economy to the global market (Townson, n.d). Mostly promoted by the IMF and the World Bank, it included a variety of measures “to open markets, remove import barriers, cut spending on social programs, devalue currencies, eliminate subsidies and price supports, and encourage exports” (Greenberg, 2008).

the emergence of informal economy including UA. The economic crisis in Argentina took place in 1999-2002 and altered the employment scene. Growth in UA was encouraged by policy support as an initiative of federal government and city of Rosario. Another example of thriving UA practices is the Gaza Strip which has limited access to food imports in spite of being one of the world’s densely populated areas (Redwood, 2009). Therefore, one can say that UA is a potential livelihood strategy that could influence the urban poor in volatile conditions. It may generate income and deal with food insecurities by providing fresh products to urban consumers and struggle against poverty (Villavicencio, 2009).

2.5 Planning policies and urban agriculture

Considering what kind of constraints may be in front of UA posed by planning policies is important to understand the ways to enable active policy-making. Urban agriculture is inevitably linked to urban planning and management. Making cities pleasant, livable places, where resources and the necessities of life are accessible to all citizens, are issues of concern for urban planning professionals. Because urban planners realize these aims through environmental control and the development of desirable land-use patterns, they can influence related issues such as the availability, accessibility and usability of land (Howe et al, 2006). Furthermore, allowing random implementation of UA could be threatening for environment and health (see 2.3.4 Risks of urban agriculture). Regulations, sanctions and education are important ways of conveying the right use of chemicals, poorly treated domestic waste in urban farming along with diseases generated by livestock rearing (Quon, 1999). On the other hand,

planning policy context including “the policy, legislation, organization of government and elected officials and government staff involved in planning communities” could challenge and restrain activities of urban farmers in addition to the lacking information of urban planners about how to handle UA in planning schema (Quon, 1991, p.10). According to Zeeuw main constraints are as follows:

- Prohibitive urban policies and regulation;
- Limited access to productive resources and insecure land tenure;
- Lack of support services; and
- Lack of organization among urban farmers (Zeeuw 1998 quoted in Armar-Klemesu, 1999).

The first three tenets are remarkable in the sense that they imply the deterrent effects imposed by planning policies and public authorities, and their passive attitude towards enhancing it. According to Bourque (2000) one factor behind the lack of support for UA by city officials lies on their negative preconception towards it. Especially, the city and health officials want to avoid this image of the city since agriculture is perceived to be as a rural activity by them, as well as being unhygienic related to animal husbandry (Bourque, 2000). Similarly Tinker says that from the perspective of urban planners and policy makers, agriculture and urban space are two concepts binary to each other, and consequently they did not let the survival of urban farms by proposing they were unsightly or unhealthy (Tinker, 1994.). Some other obstacles with urban environment could be related to limited access to land, water, seeds and lack of technical support for zoning, public health laws and other municipal regulations that recognize agriculture as an activity in the city (Bourque, 2000, p.120).

According to Redwood and Dubbeling a visible progress has been made by a number of municipalities and national governments. The numbers of official units designing policies and programmes in favor of UA increased dramatically in recent years. Accra, Beijing, Brasilia, Bulawayo (Zimbabwe), Governador Valdares (Brazil), Havana, Hyderabad, Kampala, Rosario (Argentina) and Nairobi are a short list of a growing number of cities that are being proactive on the topic (Redwood, 2009; Dubbeling, 2010). Nevertheless, the action on behalf of creating productive city spaces via UA despite of some exceptions has been mostly initiated by NGOs and community groups which function outside policy platform. Despite of increased interest, there are still lacking perspectives about how to pursue policy formulation and action-planning processes to bring results that are more successful on UA (Bourque, 2000).

One thing remarkable about the policy development is its ‘cross-cutting and multifunctional nature’ of UA, which relates it to various disciplines and different actors, and hence making the multi-stakeholder approach fundamental. As shown in the Figure 5, UA is spread over three policy spheres of sustainability which are serving to meet ecological, social and economic demands of city, and they are not absolutely mutually exclusive in real life instead they could overlap making the multi-disciplinary approach more crucial. Mainly, those different policy perspectives are embedded in the vision of municipalities according to the role of UA and how it is expected to contribute to the well-being of the community (Dubbeling, 2010). Proliferation of included disciplines depending upon the scope of the policy is also an advantage since it serves for “fuller integration of UA into the urban eco-system requires that urban planners, public health and environmental management actors join in

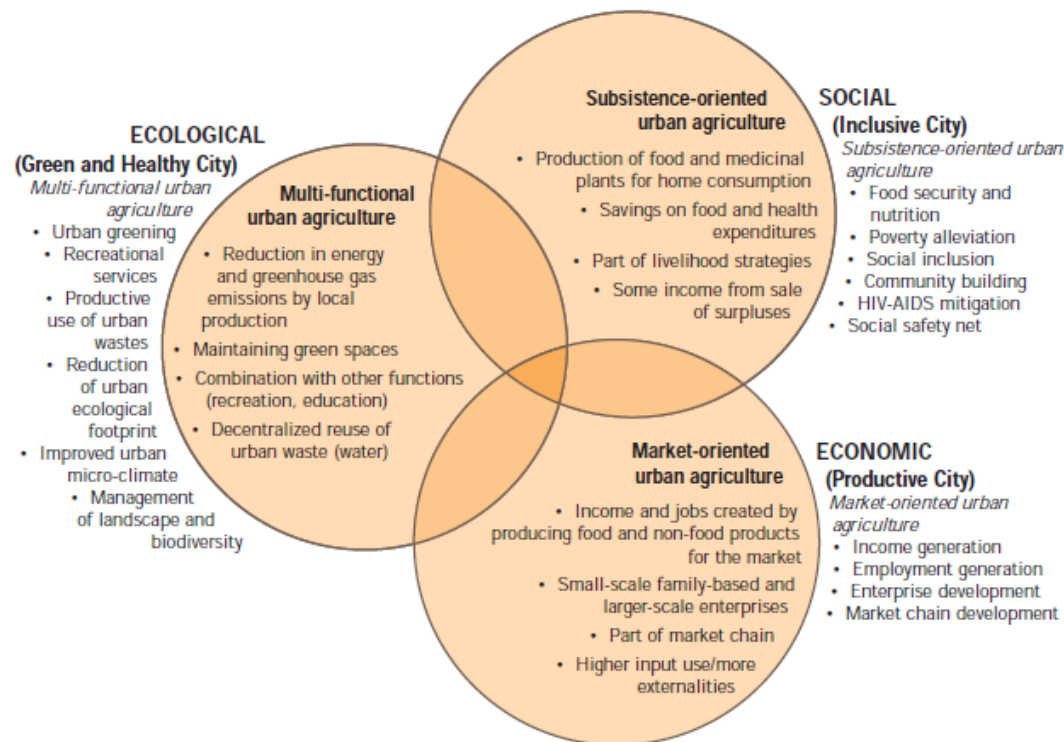


Figure 5. Urban agricultural policies showing social, ecological and economic perspectives (Source: Dubbeling, Main policy perspectives on urban agriculture, 2010, p.19.).

with others committed so far” (Mougeot 2000). “Agriculture...waste management; social housing and slum upgrading; and park and nature management” could be some other examples of institutional bodies (Dubbeling, 2010, p.21).

Policy formulation based on multi-stakeholder approach could bring more thriving results facilitated by collaboration among municipal or provincial bodies as well as local agencies (Bourque, 2000). A participative approach bringing “different bodies such as municipality, national government, NGOs, research institutes, universities, private enterprises and producer organizations” (Dubbeling, 2008) could flourish platforms interested in more facets of UA. Such an approach could be especially important to build a consultative process for the strategic urban planning based on consent. For instance, participation of urban poor in priority analysis, action planning and implementation is important, because it could

make the outcomes of policy development more comprehensive, sustainable and accepted by more stakeholders (Allen, 2001 cited in Dubbeling, 2010). Therefore, involving the variety of stakeholders in such processes and their involvement from the very beginning could be very important (Dubbeling, 2010).

2.6 Summary

UA is a multidimensional phenomenon interrelated to socio-economic and environmental aspects such as food security and nutrition, income generation, city ecology, gender and community empowerment. UA could be addressed negatively for its potential environmental or health hazards; notwithstanding, right use of UA practices has much more benefits for the cities than its potential risks. UA could serve for various purposes as a local practice and it can be re-defined depending upon distinctive features in each context. UA almost disappeared from

urban scene extending over a period of 200 years especially in highly industrialized countries. This situation is accompanied with the impacts of urbanizations as suggested by Vestbro. Nevertheless, there could be alternative urban growth forms which allow UA such as intermediary urban forms (quasi-urban/quasi-rural) or changing definition of rural and urban (ruralization of the urban and vice versa).

In order to be able to focus on the motivations and policies of planning institutions, differences between supportive and enabling paradigms are explained based on local housing needs of urban poor. In contrast to the principles of supportive model, Turner's close-up observation of informal settlements shows how incremental housing can be tailored serving individual needs. Importance of spatial hierarchy which takes space into account as a crucial resource is also underlined by Correa. Of course, while planning the future of communities, the role of the professionals is to make community relevant projects which bear the responsibility to enable the people living there.

Lastly, Rakodi's livelihood framework deals with complexity of livelihoods and conveys knowledge by zooming in minor details of urban life that institutions are estranged to. It helps to understand how livelihood methods such as UA could have a role for poorer households to a higher extent by framing the influence of external factors, institutions, policies and access to assets on it.

3. METHODOLOGY

The methodology of this study particularly aims to facilitate the study of urban agriculture (UA) in qualitative terms as a local practice and to find out the internal factors shaping that practice in specific to Diyarbakir. Therefore, it relies on a case study of Diyarbakir which was developed based on a three week long field trip as well as literature analysis and review of various documents. As the methodology of this study, different methods have been combined to be able to obtain data on the issue from different angles. Consequently, the data was collected using following techniques:

- *Case study (in addition to the major case study in Sur and a short visit in TOKI housing area was done)*
- *Semi-structured interviews (including walking interviews)*
- *Observations and photographs*
- *Review of meetings in Les Ateliers' workshop*
- *Review of documents by Diyarbakir Metropolitan Municipality*
- *Review of research done by NGOs*
- *Investigating aerial photographs of the study area*

Case study as a method bears special importance in practice-oriented fields of research due to their contribution to composing professional repertoire, as Johansson explains. It is expected to explore the complexity of a single case; therefore, it is bounded with time and space. Furthermore, it needs to “*be investigated in its natural context with a multitude of methods, and be contemporary*” (Johansson, 2005). Johansson also says that, case studies could be done with an intrinsic interest in the case or with an interest in generalizing the findings (Johansson, 2005). As Yin points out the

strength of the case study comes from its potential to generalize to theory done through analytic generalization. In line with that, this study avoids generalizing the outcomes in the context of Turkey. Instead its results will be generalized according to the theoretical framework (Yin quoted in Groat & Wang, 2002). Along with that, it is done with an intrinsic interest to explore the particularity of agricultural potential in that city and the transformation process it has been undergoing (see 1.1 Problem formulations for the reasons).

Acknowledging the particularity of the case, and also to have a closer look to the area I decided to do a field trip. It was important from several aspects: There were not enough studies done on the UA practices in Diyarbakir except for a workshop about UA practices around Suriçi region. Secondly, the time was limited since the district was changing in a fast pace due to the regeneration project taking place in Sur (see 4.2.2 Physical Changes in Sur and Urban Regeneration Project) and people were evacuating Sur to move in their new houses built by TOKI where I also had a short visit to investigate the agricultural resources. I thought that it would have been last chance to observe some UA activities still continuing before the demolishment removed some sorts of UA examples from there. Thirdly, the policy aspect of the study made my visit in Diyarbakir and interviewing policymakers and inhabitants more necessary. Lastly, it was only after the field trip that my interest for the site found a clear focus point to investigate since the literature about the area was very limited.

This inquiry has been carried out in qualitative terms. “Qualitative research is multimethod in focus, involving an interpretive, naturalistic approach to its subject matter” (Denzin, Lincoln 1998 quoted in Groat, Wang, 2002). Therefore, observations, photographs,

personal notes and semi-structured interviews were done to increase the qualitative aspect. Qualitative approach was necessary to understand how UA was perceived in that particular context, and how these perceptions were shaping the policies and vision for the city...I also tried to grasp UA as a daily activity for what people may feel closely related to. Therefore, speaking in more informal terms without a rigid interview structure I tried to understand people's motivations.

Observation had a major place in the field trip in order to answer the questions of 'what' exists there as example of UA and 'how' it exists to see under which circumstances it was pursued. An important amount of data about social, human, natural, physical, economic capital relied on my observations. I tried to observe in a close range by walking around the area, and talking to inhabitants, vendors on the streets. In most of my trips I tried to document my observations via photographing spatial structure, spatial change, UA activities in different scales, and how it was taking place in Suriçi and new TOKI housing. At the end of my observations and interviews, I also tried to come up with field notes, which are actually "good at capturing qualitative information and on capturing behaviors, activities and practices. Field notes can be used both to observe individual behaviors and collective patterns, as well as other data such as traces of activity or general 'atmospheres'" (Koch, lecture, 2011). Notes and memos were taken after each interview and also at the end of the day. Those personally taken notes were playing a major role to keep track of my interpretation in each instance.

Interviewing was a crucial source of data for this study. 20 interviews have been done with inhabitants (10 interviewees) and officials working in the municipalities (8 interviewees) and NGOs (2 interviewees). One way of

collecting data relies on semi-structured interviews with 45 minutes-1 hour length on average. Interviews were done with officials from Diyarbakir Metropolitan Municipality and Sur Municipality and also from NGOs.



Picture 4. Walking interviews were quite helpful to convey the data in its place (Candan, 2012)

Apart from the officials, I have interviewed residents. Interviews with officials and inhabitants were arranged in different ways. I tried to contact the interviewees based upon the recommendations of my personal contacts as much as possible. The interviews done with professionals were always arranged by a reference. Still, even without a reference officials working in Municipality were quite welcoming to share actions and policies. Different than with officials, interviews with residents were done more randomly, which were based upon available contacts and recommendation. Besides, I was continuously interacting with the vendors, shopkeepers, farmers and inhabitants in the streets of

Diyarbakir between me and. I have met with residents sitting and resting next to their home in Suriçi, or in new mass housing area. I met vendors mostly while walking up and down in the bazaar. I particularly tried to meet the vendors selling local products including vegetables, fruits, herbs, fish etc...Generally, my interviews did not aim to map the typical UA practices but to include interesting cases that I have come across

To be able to maintain a trustworthy conversation atmosphere in each interview, I made sure they were aware of some points beforehand. I introduced myself by pointing out that I was not representing any institution, but that they will be used for my master thesis at KTH in Sweden. I have also asked for their permission to record the conversation via recorder, and told their name could be kept anonymous depending upon the request. So, a wide array of the interviewees was recorded while a few of them requested not to be recorded. One interesting observation was that female interviewees from residents were more reluctant to be recorded compared to males. So, when I was not permitted to record, I swiftly took some notes. I also paid special attention to conveying the quotes from the interviews, keeping them as original as possible.

In the interviews with officials, their perception of UA was largely focused since their perception has power to shape future actions about it. Some main questions were: how did they perceive UA in urban context and specifically in Sur; to what extent was UA included in the project regarding the study area directly or indirectly; if there was any possibility of embracing it as a tool for planning Diyarbakir. In my interviews with non-professionals, I tried to dig out what kind of agricultural activities exist in Suriçi; how they define the scale of UA activity and its

contribution to households; if they were involved in agriculture; and if so, how they were experiencing it. To be able to capture the expectations and disparities of the recently moving residents was also important. Therefore, I asked how they perceive the impact of urban regeneration project on agriculture; if they have any expectation or interest to develop UA in the new mass housing area.

As an alternative way to learn the area, I held walking interviews with two inhabitants. Walking interviews are depicted by Jones et al.: “walking interviews are an ideal technique for exploring issues around people’s relationship with space” (2008). In my walking interviews, the interviewee showed and described the activities going on in Hevsel Gardens and the green belt. During the walking interviewee I also came across some of his farmer friends, with whom we also had small talks. Actually, this interview was quite important since the interviewee gave a lot of details about the sources used in agriculture, environment, techniques, past experiences.

Another way of generating data is based on the literature analysis. As Yin explains, a field trip is further than studying a phenomenon “in the field”, but is more a way of “studying a case in relation to the complex dynamics with which it intersects” (Groat, 2002, p.347). Therefore, different phenomena related to the context have been studied by a literature analysis. A literature analysis on urbanization, UA, planning paradigms and urban livelihoods were used to link UA in Diyarbakir to various phenomena and issues.

3.1 Possible biases in data collection

Investigating UA through interview was sometimes hard since it was a less-explored

concept for most of the professionals. With semi-structured questions I did not follow a rigid question-answer form, but in most interviews it led to going off-topic. My questions about the study area mostly led to hot topics such as urban regeneration, unemployment, poverty and urban sprawl in Diyarbakir. Besides, the questions were sometimes responded in a biased way especially by professionals. From the interviewees' perspective, UA was considered to only be composed of rural activity occupying large amount of land. They have referred to cash cropping or livestock raising ignoring the other possible methods of UA such as backyard, rooftop cultivation or fishery etc... Nevertheless, that bias is also telling about the limited perceptions of UA. In parallel with this, in the interviews I avoided depicting the name 'urban agriculture'. When I asked that way the answers were limited since people thought there was not much going on in that sense in Diyarbakir. Therefore, I changed my questions into a new structure by asking different types of UA particularly like rooftop or backyard gardening, raising animal, fishery etc...

I came across hardships while collecting data. One of them was the language barrier. In some of the interviews especially with older female residents when both of us were unable to meet on a Kurdish or Turkish speaking ground, I asked for the help of their daughters to translate. It should be noted that some important remarks could have been lost in translation. Second obstacle was the lack of access to trustworthy sources. From time to time I had to use non-scientific or secondary sources. Newspapers, which could not be always trustworthy as published data could be, provided me with an important data input. In addition, statistics for the context chapter was not always easy to find since some the data by Turkish Statistical Institution (TUIK)

was not updated regularly. Instead, I obtained that specific data from the research of a real estate research company.

4. CONTEXT

This chapter deals with Turkey and Diyarbakir in relation to socio-economic status and planning history. In section 4.1 in addition to planning history and administrative mechanisms in Turkey, one of the biggest actors TOKI (Housing Development Administration of Turkey) will be explained also. In the following section, a close-up look to Diyarbakir will be brought up, and socio-economic imbalances in comparison to Turkey will be discussed. Lastly, a detailed description of Sur area will be explained as well as the urban regeneration project it is undergoing.

4.1 Turkey

Turkey is a country located in both Asia (Anatolia) and Europe with a population of 73.64 million people (World Bank, 2011). The percentage of population living in urban centers is 75.5% (TSI, 2009). Turkey is classified as an upper middle income country according to World Bank (Box 1). Turkey's economy has been largely dependent on a few

major cities' well-being causing large economic differences between provinces (World Bank, 2013). Major reasons behind the regional economic differences are Turkey's neoliberal opening in 1980s and clustering of industrial centers in a center-periphery system around the country. Policy amendments such as privatization, shutting down public enterprises, decreasing public subsidies for agriculture and animal husbandry resulted in the economic decline of some provinces. After a while some provinces and regions were unable to catch up the competency of the center and their contribution to national economy dropped creating radical differences among regions (Sarmaşık⁸, 2007).

4.1.1 Planning history in Turkey

The Turkish Republic had been established in 1923 after the dissolution of Ottoman Empire followed with various reforms on behalf of creating modern nation state. Urban historian Tekeli distinguished Turkish urban politics into three phases which became most apparent in the development of big metropolises like Istanbul, Ankara and Izmir: "the period of 'radical modernity' from 1923 to 1950; the

BOX 3. TURKEY'S LEVEL OF INCOME

According to the classification made by World Bank, the main criterion for classifying countries is gross national income (GNI) per capita. Every economy is classified into low-income, middle-income (with a subdivision into lower middle and upper middle) and high-income. Different scaling groups for economies are:

Low-income: \$1,025 per capita or less

Lower middle-income: \$1,026 - \$4,035 per capita;

Upper middle-income, \$4,036 - 12,475 per capita;

High-income, \$12,476 per capita or more (World Bank, 2013.)

GNI per capita in Turkey is \$10,410 based on 2011 data by World Bank's making it an upper middle-income country (World Bank, 2013). Since GNI is used to measure economic power based on country, it cannot be used as a reference to find out Diyarbakir's level of income.

period of 'populist modernity' from 1950 to 1980; and the 'erosion of modernity' which has occurred since the 1980s" (Tekeli, 2009:1).

'The radical modernity' refers to the early republic era when modern architecture and urbanism were grasped as key elements of development and imposed in a top-down manner. Government initiated urban development projects including modern public housing, buildings and squares that were identical in every city (İçduygu, 2004). Central planning ideology was mainly in charge of pursuing development and was firmly implemented in practice. Therefore, The Ministry of Construction and Resettlement as a ministry for urbanization and metropolitan offices were established; urban planning education was institutionalized (Tekeli, 2009). After the 1940s the strong belief in urbanism and modernist policies of previous era was interrupted by 'the **populist modernity**'. This period was based on bringing spontaneous solutions to encounter the problems of rapid urbanization like lack of infrastructure, unemployment, informal economy, deficiency of housing and welfare. Shortage of housing was a serious problem not only for incoming population but also for urban middle class. The government evaded the responsibility of providing housing and everyday problems; instead those problems were solved in a populist manner by tolerating the violation of law. Most of the development in big cities mostly pursued by small and private real estate interests undermined the legitimate planning framework which was an ideal of radical modernity (Tekeli, 2009).

An important phenomenon deriving from Turkey's urbanization history revealing the bottom-up approach of populist modernity is *gecekondu*. Meaning 'happened at night', it refers to the illegal settlements built by the migrant population to meet the housing

needs. Mostly surrounded with a courtyard, the *gecekondu* was an intermediary method that enabled the newcomers to find a way of living between rural and urban. *Gecekondu*s were tolerated by authorities especially between 1945 and 1985 when rapid urbanization and industrialization was on the rise (Esen, 2009). They were legitimized and integrated in formal housing market by passing amnesty laws. They were allowed because of the state's inefficiency to meet housing deficit. Besides, the role of *gecekondu*s in urban poor's sustaining own life was taken into consideration by populist politics. According to Esen, this arrangement was accepted as long as these newcomers provided for their own welfare; and by growing food in their own courtyards and walking to jobs in nearby industrial factories, these newcomers were able to reduce the costs of urban living" (Esen, 2009;p.2).

Due to the toleration by the state informal settlements in Turkey had much better living standards compared to its international equivalents. Although this new mixed lifestyle was strongly opposed by urban middle class that lives in a 'westernized' fashion, it became widespread in most of urban centers. After the initiation of large scale developments and the opportunity to generate extra income from modifying *gecekondu*s being noticed, they started to vanish in most metropolises in last decades. While some of them have been demolished in urban renewal projects most of the *gecekondu*s also were extended into high floor apartments for generating income (Esen, 2009).

The populist era was followed by neoliberal shift in 1980s starting '**the erosion of modernity**' which bears significance in Turkish planning history because of the construction boom and intensified land speculations. Development of Turkish cities became large

scale oriented in a 'top-down and neoliberal agenda' (Esen, 2009). "Cities could now grow by the addition of large built-up areas through institutional arrangements and new building-supply methods" (Tekeli, 2009; 5). Even the small-scale or individual developers that diminished in housing sector started to get organized into cooperatives and institutional bodies to be able to catch up the potential of large scale development projects (Tekeli, 2009). The 1999 earthquake also empowered the large-scale initiatives due to confiscating informal property into second-class status (Esen, 2009).

4.1.2 Public administration in Turkey and decentralization

Turkey is made of 81 provinces which are divided into districts. Provinces are governed by the rule of the governorship (appointed) and the municipal authority (elected). If the population of the city is less than 750,000 it is called provincial municipality. If it is above 750,000, it is called metropolitan municipality and it is regulated in a two-tier structure which consists of metropolitan municipality and metropolitan district municipality below it (Ministry of Interior, n.d.). In this model, metropolitan municipality takes macro-level decisions while the metropolitan district municipality only deals with traditional municipal services (Erder, 2009). According to Bayraktar, the latter transfers some of its power and resources to metropolitan municipalities weakening the local democracy even further by adding both central and local controlling bodies over the district municipality (Bayraktar, 2007; 15).

According to the resources from The Ministry of Interior of Turkey, municipalities in Turkey started to enjoy greater autonomy and financial resources with the changes starting from the 1980s. In 2004-2005 genuine steps

have been taken via the Public Administration Reform for participative, deliberative and democratic processes to control urban development. The objective was to transform public administration structure from "bureaucratic, formalist and inefficient" into decentralized, accessible, transparent, and more participative one for a better delivery of public services. Therefore, local authorities were appointed with more competencies and resources, and with less central administrative tutelage. Municipalities started to have rights to establish new administrative bodies by municipal decision, initiating new services, deciding about recruiting, more autonomous decision taking and strategy making. Besides they were allocated relatively with more shared of revenues. To strengthen local authorities and the collaboration union among municipalities was supported and it became compulsory to include variety of stakeholders in decision making process. Citizens' assemblies were established and involvement of universities, non-governmental organizations and professional chambers was increased (Ministry of Interior of Turkey, n.d.).

Considering these reforms there are still some important malfunctions in Turkish local democracy mainly rising from the hierarchical structure. Some remarks on the planning processes and local democracy in Turkey are given by urban historian Tekeli:

"Implementation of plans in Turkey, however, should not be confused with the transparent processes of developed democracies. In Turkey, a mayor's use of authority is not always transparent. Meanwhile, the demands on behalf of civic groups for increased municipal authority in the name of national decentralization and participatory democracy have at times exacerbated this misuse of discretionary powers. This is because Turkey's city administrations have not been completely

democratized yet, and strong municipal authority has created, in most cases, local fiefdoms rather than widespread civic engagement” (Tekeli, 2009).

It may be noted that in the case of Diyarbakir new institutional arrangements were done by the Municipality in order to be able to increase the representation. An important mechanism bridging people and municipality in Diyarbakir is the neighborhood council as a particular administrative mechanism in cities governed by the Kurdish party BDP. It is responsible for conveying complaints and demands raised by residents to the municipal level. It is not regulated by Turkish Legislation. According to an anonymous planner in Diyarbakir, neighborhood councils failed to form an opposition in general as well as conveying people’s resistance against moving into TOKI’s (Housing Development Administration of Turkey) housing in the project. Their voice was mostly bypassed by the Municipality because of deriving from the same political origin. Still, this unit can be regarded as an important difference than the legal Turkish administrative system.

Despite all decentralization efforts, local administrations still do not have financial autonomy, as Erder points out, and are

obliged to set good relations with the central government for the sake of finding resources for resources to implement their decisions (2009). The power transferred to the local administrative body is not evenly distributed among its different organs. The power is concentrated in the position of mayor coupled with the increased local autonomy. The mayor has the major responsibilities and authority in council meetings which fulfills an important function for public representation. The mayor has the right to supervise the meetings, determine its agenda in addition to having the right to veto municipal decision alone (Bayraktar, 2007; 17). Other complications with the representation in municipal council are the 10% threshold that the electee should exceed and the influence of some socio-professional groups on it. There are specific professions or townsmen groups over-represented in the council making the majority stronger and undermining the smaller interest groups (Bayraktar, 2007).

In addition to representation problems, although the state provided the municipalities with more autonomy, in 2000s planning mechanisms became more centralized by new actors. One important actor leading the urban development is Housing Development

BOX 4. TOKI (Housing Development Administration of Turkey)

“TOKI has been operative in every province and in nearly most of all townships of Turkey. A crucial aspect of its work is that it is not limited simply to producing housing. It also provides the social infrastructure needed to meet the needs of homeowners by turning residential complexes into ‘micro-cities’. A social community is created through the provision of libraries, healthcare services, commercial centers, outdoor and indoor sports facilities, safe playgrounds, places of worship, and, if necessary, schools and hospitals... Wherever we build housing, we take into consideration the great variation in climate and natural environment of our country, which enables us to make a contribution to the development of regional architecture.”

Erdoğan Bayraktar, President of TOKI

(source: www.toki.gov.tr)

Picture 5. Showing one of the recent housing developments by TOKI (Source: Urban World, 2010).

Administration of Turkey (TOKI), founded in 1984 after certain measures have been taken by creating 'right to shelter' in the new Constitution. TOKI provides variety of public housing including disaster housing, agriculture village, immigrant housing as well as housing for urban renewal and slum transformation in collaboration with local administrations. Today, leading the mass housing sector and urban regeneration processes it embodies authorities of planning, financing and construction of public housing in itself (TOKI, 2013). Law on Transformation of Areas under Disaster Risk prepared on 30 May 2010 imposed significant tasks on TOKI which becomes its executive on behalf of the Turkish Ministry of Environment and Urbanism (MHU). This law covers the re-building the houses under the risk by TOKI which are located in the area with 1st, 2nd, 3rd, 4th degree seismic zone which makes 92% of Turkey (Radikal, 2012).

TOKI operates according to private sector logic by grounding it on an economic dimension. It has the right to generate resources by revenue sharing and transforming treasury-own land that is void of infrastructure into 'property' (Urban World, 2010). According to Les Atelier, through TOKI's increased authority

in planning such as the authority to transform the treasury land for housing, the state attained a new regulatory role after being provider for housing (Dossier, 2011). Some planners interviewed in Diyarbakir evaluated TOKI as an inevitable stakeholder in Diyarbakir's urban development. It does not only originate from the Disaster Law and legislative framework but from institutional arrangements that let TOKI to hold financial means necessary for urban development. It consequently made the local decision makers subservient to TOKI's schemes (Bekaroglu, M., 2012).

4.1.3 Urban Agriculture in Turkey

In Turkey, urban agriculture is neither recognized as a concept in legal framework nor regulated by the law. Therefore, legal status of UA activities in Turkey is not clearly defined. Municipalities are appointed with some responsibilities for regulating them according to the terms of public health and hygiene, as defined by **Municipal Law nr. 5393**, they are responsible for "providing services of urban infrastructure such as development of ...the water and sewage system...environment and environmental health, cleaning and solid waste...forestry, parks and green areas..." (IBB, 2005).

Although urban elements closely related to UA are mentioned, they are not detailed in relation to UA. On the other hand, some UA related activities especially animal husbandry are addressed and restricted by laws indirectly. According to the **Public Health Law nr. 1593**, in the cities populated with more than 20,000 people, it is forbidden to have animal barns on public places or within the borders of an area indicated by the municipality. The municipality is responsible for removing husbandry activities in that area. Besides, according to **Metropolitan Municipal**

Law nr. 5216, the metropolitan municipality is responsible for building, running, certifying and controlling all the wholesale markets (for vegetable, fruit) and slaughterhouses in order to be able to prevent unlicensed butchering outside the areas determined by the municipality. They will be built in places approved in master plan (Ministry of Justice, n.d). While animal husbandry is a forbidden type of UA activity within the urban centers; there are also some cities increasing tight control over those activities.

Although UA is not referred conceptually in the legal framework, it occupied a crucial place in cities even in a metropolis like Istanbul going back for centuries. UA once being a widespread practice today it is not visible anymore in every city center. An important component of UA that disappeared from urban landscape in Turkey is *bostan*. *Bostan* is a garden located in neighborhoods where vegetables are cultivated for

commercial purposes. As productive spaces in cities, *bostans* were woven in city urban fabric and daily life since centuries; and its skillful gardeners were organized in guilds and well-respected (Kaldjian, 2004). *Bostans* referring to the garden scale UA had been quite hampered and inhibited for various reasons especially in big cities. Today few *bostans* are left scattered around Istanbul and mostly pushed to the periphery. Remarkable thing with *bostans* is how they diminished in metropolises especially after 1980s. Former *bostans* are mostly transformed into housing development site, garage or car park, and pushed into margins of urban life because of the competition for land. The last *bostan* gardeners that Kaldjian interviewed depicted that they were not protected by any of the authorities to be able to pursue their production.

As stated by Keyder, UA has been overweighed by the ambition to be world-city,



Picture 6. A traditional bostan from Istanbul (Source: www.kentyazihanesi.blogspot.se)

competition for urban space, urbanization with massive population growth, “speculative investment in housing and development to make real estate the highest profit sector in Istanbul” (Keyder, 1999 quoted in Kaldjian, 2004). Moreover according to Kaldjian, after the Republic was established the rural image associated with agricultural activities for resembling migrant practices and village lifestyle was despised by urban middle class and not found compatible with the official vision for the city (Kaldjian, 2004). The ambition to modernize the country via urban development and industrialization in a ‘European fashion’ resulted in the exclusion of UA. The aim to modernize via western-style limited the green productive urban space.

Nowadays, there is an increasing awareness for UA, and in the case of Istanbul it became part of discussion increasingly in circles of urban planners, historians and activists in the 2000s. Efforts to revitalize and protect *bostans* in Istanbul by academia and neighborhood initiatives became apparent after exploring more about its history. Besides the ‘re-discovery of *bostans*’ in Istanbul, another attempt for UA is Accessible Life Association’s initiation in 2005 (UYD). They started a pilot project in Gurpinar located in the periphery of Istanbul with 25 low-income women cultivating 1-hectare garden by working with local governments and organizations. They tried to promote urban composting and organic production as part of urban sustainability; and in 2005 created an international discussion environment and knowledge network by holding symposiums on UA and poverty alleviation in Istanbul (Kaldjian, 301). It is acknowledged that allotments garden is a newly emerging agricultural activity in cities initiated by various municipalities (Odunpazar, Beykoz and Arnavutköy Municipalities etc...) and located in peripheries. One can get the right to

cultivate it after paying annual fee. In municipalities’ websites target groups of those gardens are described as families with children and pensioners.

4.2 Diyarbakir and the Study area - Sur

The city lies in southeastern Turkey; on the upper part of Mesopotamia. Greater province of Diyarbakır, including the surrounding villages, is inhabited by 1.570.943 people while the inner city population consists of 875.069 people (State Statistical Institute, TÜİK: 2011 census). Diyarbakır is located west of Tigris River, and is surrounded by military zone, Dicle University, Hevsel Gardens, Karacadağ Mountain and airport in the north, east and south. Tigris River is a significant source of water with its branches spreading around the area, and is clustered with recreational and agricultural functions.

The study area *Sur* covers inside the City Walls called *Sur* and the districts outside it. I used



Metropolitan Area Population

1.570.943

Urban Area Population

875.069

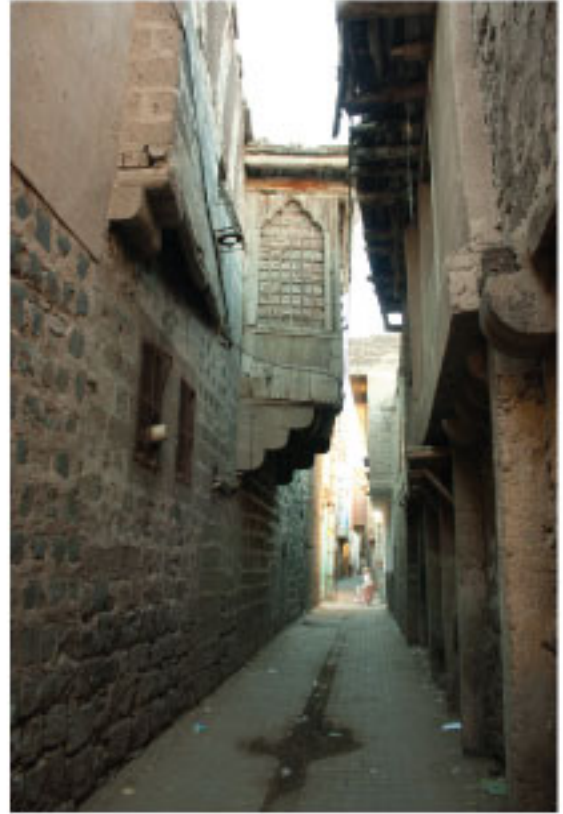
Figure 6. Diyarbakir’s location in Turkey Adapted author. (Source: wikipedia.org)

one name *Sur meaning the City Walls* to refer to whole study area since it does not have unique name. Not every district in that area is under the control of Sur District Municipality, but still they are referred as Sur for their proximity to the City Walls and weighted agricultural activities. During the study it was realized that the inside the Old Town was closely connected in physical and sociological terms. The gates of Walls have important role at connecting Sur with informal settlements built between the Old Town and Tigris River in northeastern and southwestern part.

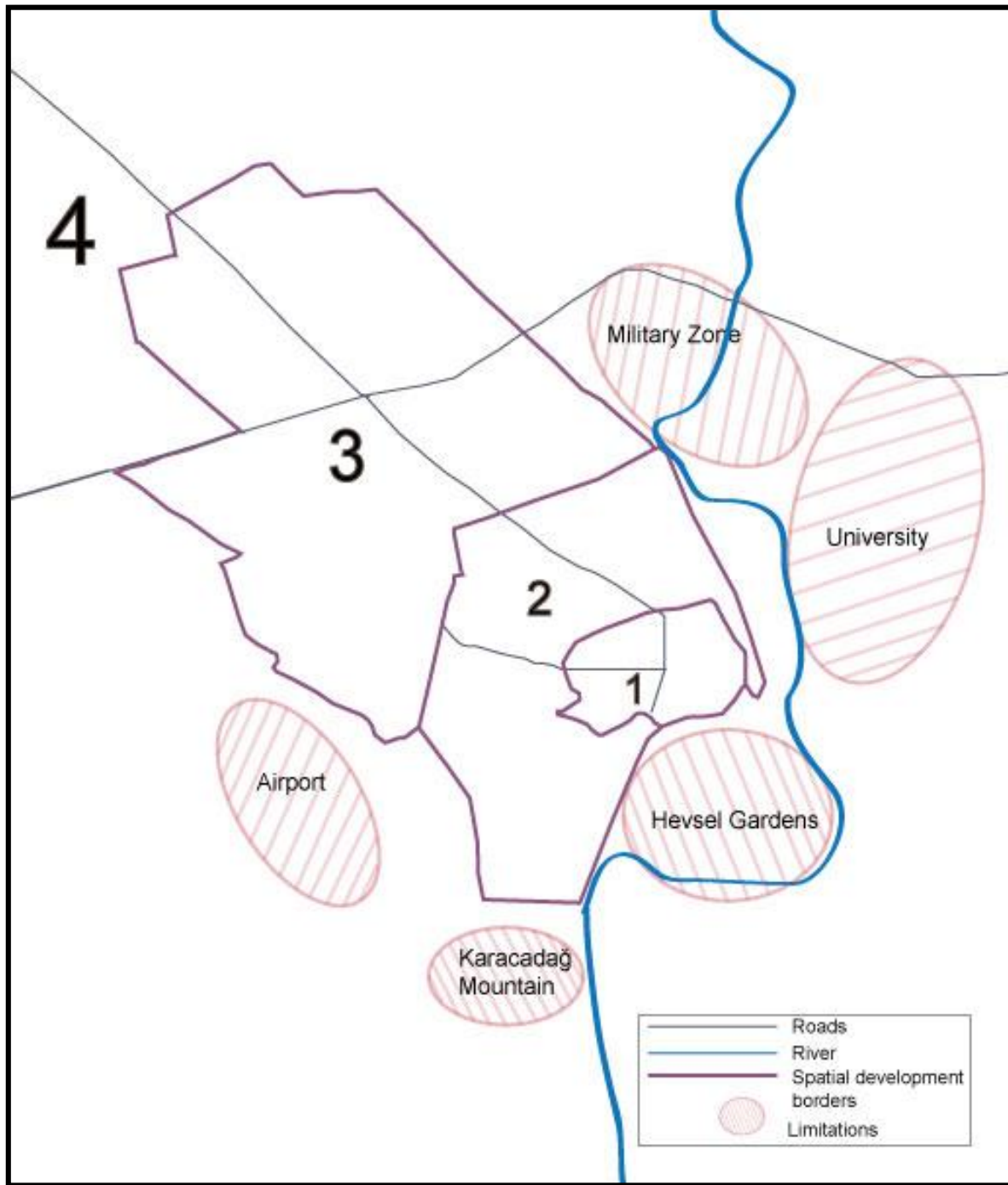
Dating almost 9000 years back (Diyarbakır Provincial Directorate of Culture and Tourism, n.d), spatial development of Diyarbakır started within the borders of study area Sur which is surrounded by City Walls shown by Area 1 in Picture 1. The city borders remained inside the walls of Old Town till the republican period of 1920s. Between the 1930s and the 60s, with the launching of Municipal corporations' law, the planned expansion of city outside the City Walls started. It expanded from Area 1 towards Area 2 as shown in Map 2. Between the 1950s and 1985 there were both planned and unplanned actions owing to increasing population and migration flow. It gave rise to unplanned, uncontrolled and dense urban areas where informal buildings compactly rises upon 7-8 floors next to each other, without efficient infrastructure especially in northeastern axis Area 2 (Bağlar District) (2008⁹, Les Atelier Session Book, 2011).

Looking closer to the development of Diyarbakır in time, one can see the urban sprawl trend of urbanization in Diyarbakır by looking at the changing scale of density depending upon the neighborhood. According to the results pointed out by Les Atelier, in Suriçi (area 1) and Bağlar (area 2) inhabitants

⁹ Diyarbakır Spatial Development Map by Diyarbakır Metropolitan Municipality (DMM)



Picture 7 & 8 & 9. First two pictures show historical and informal settlements built in the study area. Third picture showing the recent development areas in Diyarbakır. New typologies of building show contrast with the building types in Suriçi reflecting to density (Candan, 2012)



Map 1. Diyarbakir spatial development and limitations (sketch by author based on DBB urban renewal presentation, 2011).

City has been growing from #1 (Sur) towards #4 on an axis limited by some physical barriers such as airport, Karacadağ Mountain, Hevsel Gardens, Dicle University and the zone owned by Turkish Army. Spatial growth of the city in time displayed by numbers.

Area 1: the historical core (B.C. 3000);

Area 2: post-republican period 1950s-1980s;

Area 3: 1980s-2000s during highly volatile demographic conditions of Diyarbakir;

Area 4: 2000s-present when city started to grow into agricultural lands.



Picture 10. Aerial photo of Diyarbakır in 1939 (Source: Diyarbakır Metropolitan Municipality)

by ha exceed 900. On the other hand, in recently developed areas it is estimated to be between 100 – 250 inhabitants in Yenışehir (around area 3) and under 100 inhabitants in Diclekent (area 4). New development area around area 3 and 4 have been developed by engulfing the agricultural land basically, and showing low density around 40% of space is used for green areas and services (Les Atelier, Dossier, 2011). According to municipality, between 1985 and 2000s, with the highly rising population, new urban spaces have been planned and re-identified with new dynamics considering living space, working space and spatial investigation of new public spaces. New development areas were concentrated in the direction of southwest and northwest whereas new development emerged on north-south and east-west axes. During that period, the city expanded to Area 3 and 4. According to Les Atelier, especially during the last decade, the city sprawled in north and west engulfing agricultural land in the outskirts (Area 4). High-rise apartment blocks have been built in the new development area by private investors who paid land-owners with apartments in return, according to Les Atelier's report, it led to a fast-paced urban growth (Les Atelier, Session Book, 2011; 7).



Picture 11. Some parts of the City Walls are highly damaged (Candan, 2012).

4.2.1 Economic Decline and Demographic Changes

Neoliberal opening of Turkish economy and its outcomes such as increased local and regional economic differences and diminished subsidies for agriculture were explained in previous chapter on Turkey. Southeastern Turkey was influenced by new policies. In the region especially Diyarbakır was imposed on the outcomes of these policies. Diyarbakır, which was an important commercial, cultural and knowledge hub in the past, was in decline since late Ottoman Period with the transition into industrial capitalism and as the sea being favored over land routes. In 1927 Diyarbakır was still ranking 3rd among all provinces in Turkey based upon the number of workplaces. In 1972 Diyarbakır ranked 27th in terms of industrial production which fell to 54th among 81 provinces in 2000 (Sarmaşık, 2007¹⁰). Although Turkey is a middle-income country as explored in previous section, Southeastern Anatolia Region and Diyarbakır's economies lag behind. In terms of contribution to GDP, Southeastern Region ranks 6th among seven regions with a contribution equal to 7.18% in 2001 (SSI, 2001 cited in GABB, 2008). According to figures from 2000, Diyarbakır ranked 55th in terms of per person GDP with

¹⁰ State Planning Organization 1972, 2000 and 2003 quoted in Les Atelier, Session Book 2011.

its average of 1,056 TL (\$794) (SSI, 2000 cited in Sarmaşık, 2007). A recent research¹¹ shows that in 2011 Diyarbakir ranked 62nd among 81 provinces with per person GDP equal to 9,309 TL (\$5. 574) (Kuzey Ekspress, 2011).

Above all, political climate and armed conflict in the area put a burden on Diyarbakir in various aspects. During 1990s, armed conflict arising from the “Kurdish problem” influenced the Southeastern Turkey and especially Diyarbakir. Economic situation with high unemployment rates and concentrated poverty in the city center of Diyarbakir is attributed, to a greater extent, to the security measures taken during the Emergency Rule (1987-2002), and to the enforced displacement. During the Emergency Rule Period, “according to the Turkish Parliament’s Migration Commission Report of 1997, the number of settlements evacuated on “security” grounds as of November 1997 totaled 3,428. According to reports by local sources, human rights defenders (The Human Rights Association and the Human Rights Foundation of Turkey), and the Association of Culture and Social Support for Migrants (GÖÇ- DER) founded by the forcibly displaced, over 4,000 settlements were evacuated, and millions of people were left without a place to



Picture 12. Outside view of City Walls from south.
Source: Les Atelier Ben U Sen presentation, 2011)

go or any form of compensation for their losses. These people have clustered in the regional urban centers and in major urban centers located west in Turkey (Istanbul, Izmir, Mersin). Many experience significant problems in adjusting to life in these new urban settings, and encounter significant obstacles in education, health, housing, and employment” (Sarmaşık, 2007, p.8). A huge migration to Diyarbakir started because of rising violence due to martial law, Emergency Rule and armed conflict. It was accompanied with another flow of immigration due to the economic turndown stemming from the fact that agriculture and animal husbandry were losing ground (GABB, 2008). Between 1990 and 2000, Turkey’s population increased by 1.83% while Diyarbakir’s increased by 3.78% (SSI, 2000 cited in Sarmaşık, 2007). During that time Diyarbakir’s population has peaked to more than 1 million de facto residents from 350,000 and its urban space largely influenced by it (Sarmaşık, 2007)¹².

Demographic change exacerbated the already existing unemployment problem in Diyarbakir and triggered crucial problems. In 2000 the unemployment rate in greater province of Diyarbakir was 16% and it was doubled in the city center, reaching 30% (SSI, 2000 cited in Ekosep, 2009). Basic source of income for 92.5% of the households that were displaced between 1990 and 2000 was agriculture and animal husbandry back at home. Incoming population’s lack of knowledge about urban jobs, and inapplicability of their agricultural knowledge and skills made them ‘unskilled’ laborers, and decreased their chance of integrating in job market (Ekosep¹³, 2009;

¹² According to the review of economic power of Diyarbakir has been done by collaboration between Sarmaşık and Local Agenda 21 Diyarbakir.

¹³ EKOSEP, as a project aiming to alleviate the negative impacts of immigration on urban areas and seizing multi-sector and multi-actor approach, did also a field study based upon the information collected from 3032

Sarmaşık, 2007). Existing jobs for ‘unskilled’ labor are still very low qualified. Temporary jobs such as in the construction work, in the field or in the street are what those unskilled workers could afford to find mostly. Due to the inefficient job market, informal economic activity is a source of income for most of the households. Some of the popular jobs in the whole city are smuggling tea and cigarettes (Les Atelier, Dossier, 2011).

As a result of ongoing unemployment, poverty became a chronic problem in the city. Sarmaşık’s¹⁴ survey of mapping the poverty in Diyarbakir indicated that more than %75 of the [households in those four informal settlements around Diyarbakir live under poverty line (around 500 TL in 2007, 2782 TL in 2012)], and the primary need of the population living in extreme poverty conditions is food (2007). It indicates that there are approximately 4500-5000 families in which the man who is supposed to earn money lost the ability to do so, which mainly consist of woman-child-elderly-disabled population or which will not be able to contribute to production and therefore which do not have an income. These families cannot survive without external support (Sarmaşık, 2007).

Most of the problems in Diyarbakir are related to intense demographic change, and mostly concentrated in city center-Sur (Sarmaşık, 2007). During 1990s Sur became the first place that immigrants moved to and started making a living in Diyarbakir. Sur is the initial place where migrants choose to live at first, but they

do not settle down. After adapting to life circumstances in the city, they leave Sur for another neighborhood in Diyarbakir or another city. According to Ekosep, an important cause for problems in Diyarbakir is related to the temporality of dwelling in Sur (Ekosep, 2009).

Among various studies done on the socio-economic situation of Diyarbakir, Sur region has a special place for being one of the places where the poverty is concentrated. Unemployment ratio is high in Sur. In neighborhoods of Sur, 37% of the household population that constitute Cevatpaşa sample, 33% of those constituting Dabanoğlu sample, and 44% of those constituting Fatihpaşa sample declared that they cannot have access to regular income (Ekosep, 2009). A considerable number of children living or working on streets in the city are also the kids of the families dwelling in Sur.

4.2.2 Physical Changes in Sur and Urban Regeneration Project

Diyarbakir’s history has a great cultural variety owing to various ethnic groups that left historical remnants in the city such as caravanserais, bridges, *hans* (little caravanserais), mosques and churches (Les Atelier, Dossier, 2011). One major and dominant architectural element with a visual impact on urban landscape is City Walls, which is one of the longest medieval fortifications in history with its 5.5 km length, after the Great Wall of China (Diyarbakir Touristic Map, n.d.). Infrastructure and architecture of the Old Town have been pressurized for a long time influenced by several factors. According to Kejanli et al., initiatives to plan and preserve Old Town starting from republican period gave undesirable results, and failed to preserve it (2010). Secondly, increasing population during

households and 18752 household members in Diyarbakir city center (Ekosep, 2009)

¹⁴ *Sarmaşık is trying to alleviate the impacts of poverty on households scale by establishing a food bank for poor households. Due to excess number of applications to food bank from poor families, the association could only have prioritized helping single parent families with under aged children and having not any source of income.*



Urban renewal of Surici-the Old Town aims to clean the area from illegal settlements.
 Picture 13. The northeastern part of Sur area where the demolishments started at first (Candan, 2012)
 Picture 14. The southern part – Alipaşa district was another primary district where regeneration started.

second half of 20th century and especially in last decades put heavy pressure on its historical feature. Incoming low income people tried to solve housing problems by limited financial means, so they built informal settlements-gecekondu (built-overnight) as extensions on historical site. Suriçi, once used to be regularly maintained by its wealthy and permanent residents, was neglected later and also left deprived of municipal services (Sarmaşık, 2007; Ekosep, 2009).

Currently, the Old Town Suriçi is transforming via an urban regeneration project run under the coordination of Diyarbakır Governorship and collaboration of TOKI, Diyarbakır Metropolitan Municipality and Sur District Municipality. As the Mayor of Sur Municipality Abdullah Demirtas has described the process, in 2008 according to the protocol between TOKI and the Turkish Ministry of Environment and Urbanism, old settlements Suriçi region were going to be demolished and replaced with 5 storey buildings. Later, this decision has been rejected by the Diyarbakır Metropolitan Municipality and Sur Municipality who were going to be the future stakeholders of the urban regeneration project. The protocol has been replaced by a new urban regeneration plan going hand in hand with Sur historical protection plan. *The protection plan* initiated by The Ministry of Culture and the Municipality aiming to promote Diyarbakır's cultural heritage through the revival of City Walls, traditional housing and religious buildings in Suriçi. Main criteria in the project are restrictions on new buildings, standard *façades* of the buildings, and use of traditional materials in their constructions. Other measures taken to protect the Old Town are building green belts around city walls with a diameter of 50-100m from City Walls, removing illegal housings, and strengthening the infrastructure (Les Atelier, Dossier, 2011). Right now Diyarbakır's Governor's Office is



**Picture 15 & 16. For the municipality, the maintenance of the City Walls and its protection via green belt is very crucial (Candan, 2012).
Picture 17. (source: wiki.tr)**

preparing to apply for Diyarbakır's City Walls to be inscribed on UNESCO's World Heritage List, aiming to exhibit historical identity of the city as well as expecting to boost tourism in future (Zaman, 2012).

The progress has started and the transformation Alipaşa, Yenikapı, Fatihpasa and Cevatpasa districts in the Old Town has already been kicked off by emptying those neighborhoods. While the informal houses have been demolished, the residents have been offered two choices between being paid

or moving to the new houses in TOKI's mass housing areas in Üçkuyu and Çölgüzeli in the outskirts of Diyarbakir. Some residents in TOKI's housing in Çölgüzeli and some authorities in NGOs stated that most of the people have already moved back to town center after selling their houses built by TOKI. According to the Diyarbakir Metropolitan Municipality's presentations next targets for transformation are Dicle (close to Sur), Yeniköy, and Aziziye, Üçkuyu and Peyas neighborhoods (Area 2 in Diyarbakir Map).

Another possible informal settlement that may go under transformation is Ben u Sen in the south of Sur; but, it is not explicitly depicted yet by the Municipality (DMM, Sunday Presentation, 2011). What is special with that district is that the Municipality held a workshop to bring solutions for Ben U Sen's regeneration in site; therefore, with the cooperation between the Metropolitan Municipality, Rennes Municipality and Les Atelier, a workshop has been done where three teams brought suggestions for transformation in site in pursuit of a six-month sociological study of the area¹⁵.

4.3 Summary

One can observe the changing planning paradigm in Turkey throughout the century which started with a top-down control by the state, changed into a bottom-up approach allowing the implementation of small scale interests in mid-century. In 1990s and 2000s it started to embody large scale interests

implemented in a top-down manner. Increasing interest to serve neoliberal ambitions replaced the populist policies fulfilling the needs of lower class. In addition, local autonomy is weakened because of unsuccessful attempts to decentralize local administration and increased state control. Since Turkey is a country where socio-economic regional differences highly exist, which is a situation that Diyarbakir is also aggrieved of, local voices need to be reflected well enough to decision-making mechanisms. Local voices could differ a lot from place to place which is the case with Diyarbakir to the rest of the country and Surici to the rest of Diyarbakir. Those differences make centrally taken decisions hard to implement in different locales. Therefore, the voices and demands regarding UA in cities are blocked on the way before reaching the authorities. The lower authorities that Sur Municipality has in comparison to metropolitan municipality, and to the central housing actor TOKI makes the representation of these local voices quite complicated. UA in urban centers have not been appreciated by planners and authorities; but, it could still find voice in planning schemes or legal framework. Only grasped through its effects on public health, representative organs are deprived of representative voices in decision-taking and UA was not recognized as an urban element, but only has been pushed to margins of city and society.

¹⁵ According to Baris Alen, the intention with this workshop was considered as a method to produce solutions for the population living in Ben u Sen, which is formed of one of the most disadvantaged groups referring to being victims of enforced migration.

5. FINDINGS

This chapter is a compilation of data gathered in the field work in addition to empirical data provided by Les Atelier's research and transcription of meeting notes. Characteristics of urban agriculture in Old Town and new settlement area will be explored. Lastly, its perceptions in specific to policymakers in Diyarbakir will be elaborated in examples.

5.1 Characteristics of Urban Agriculture in and around Sur

In the study area (4.2 Diyarbakir and the study area) there were various types of urban agriculture (UA) producing different kinds of vegetables, fruits and herbs like tomato, eggplant, pepper, zucchini, lettuce, dill, rucola, parsley, green onion, mint, basilica and various fruits (Rifat, interview). In this section basic features of urban agriculture in the study area will be explained.

5.1.1 Types of Urban Agriculture by Sur residents

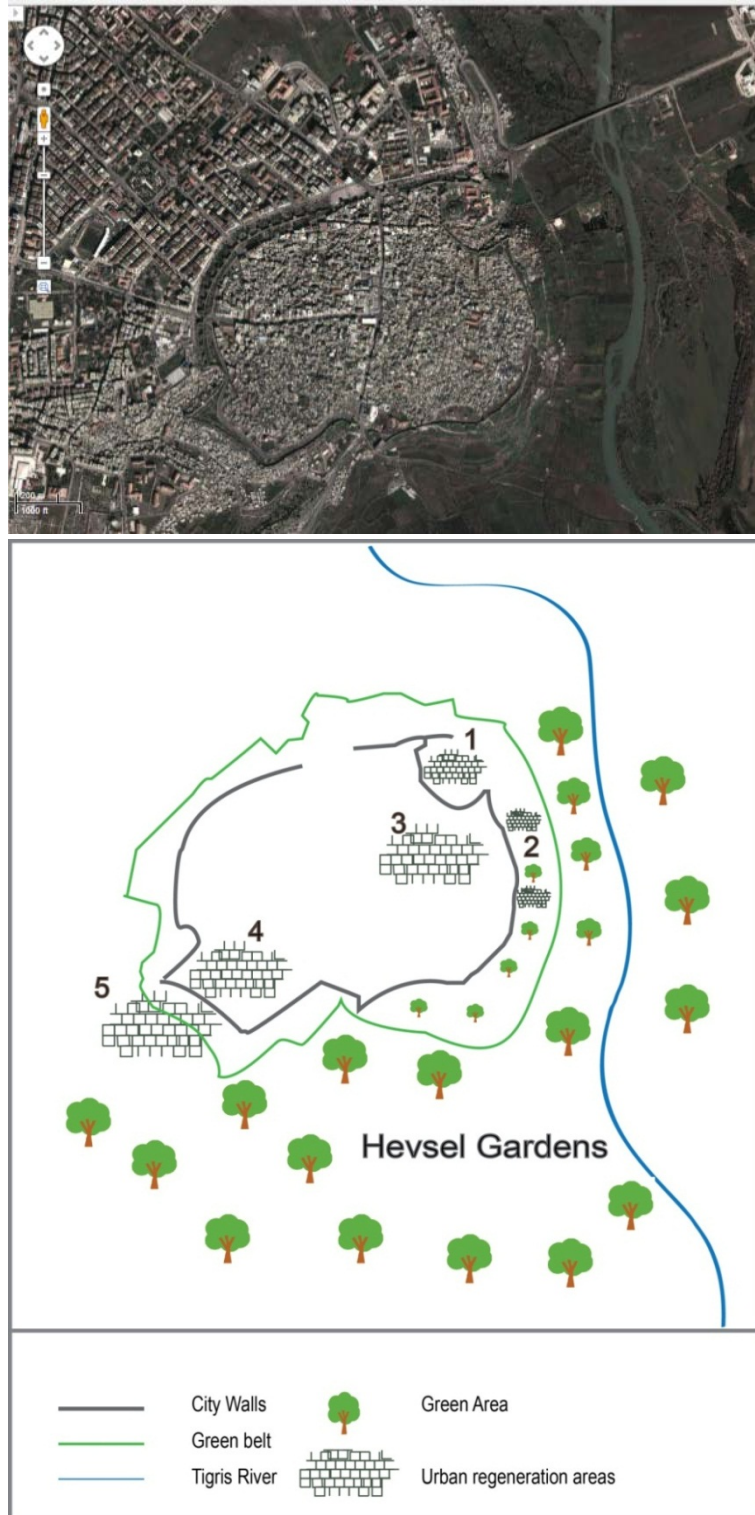
Hevsel Gardens located between Tigris Valley and City Walls is a remarkable area for Diyarbakir through its agricultural production and heritage value (see Map 2). In the interviews with municipal authorities, Hevsel Gardens were usually referred as 'nostalgic' places bearing importance for Diyarbakir.

For someone living in Diyarbakir eating parsley, lettuce, onion or mint from Hevsel Gardens is kind of nostalgic (attributed positively), (Abdullah Demirtaş, interview).



Picture 18 & 19, UA in Diyarbakir shows a great variety (Candan, 2012).

The green area along the River was divided into *bostans* (4 .2.2 Urban Agriculture in Turkey), some of which farmers have built their houses in (settlement #2 in Map 2). According to the interviews, it is not wrong to say that Hevsel Gardens is one major source of food for Diyarbakir which lost its edge in last decades because of inappropriate irrigation techniques and the growth of the city. Still being a productive center, it is located on a land of around 740 acres where farmers grow poplar (245 acres), cotton (75-125 acres), and vegetable as well as fruits (the rest) (Les Atelier- Dossier, 2011). Hevsel Gardens were also a unique place to produce Diyarbakir's popular gigantic and sweet watermelon in the



Map 2. Urban regeneration areas in Old Town and the green space around it (source: drawn by the author and satellite map of Surici (source: Google Maps)).

country (see 5.1.2, 5.1.3 and 5.1.4 for further explanation).

During my observations in the study area, I often encountered houses with small backyards growing vegetables, herbs and flowers in the upper parts of Tigris Valley. Moving from Hevsel Gardens into Sur, it was observed that size of gardens decreased as buildings got denser. Backyard gardening was mostly taking place in the developed parts of Sur (settlements #1, #2, #3, #5 in Map 2) particularly among the informal buildings. This type of agriculture existed both inside and outside City Walls. However, Hasibe a former resident of Sur told me surprisingly, not every house with a backyard was using its space for agriculture such as historical houses made of basalt stones. Instead, having less soil than the informal houses with gardens, stone houses usually had one mulberry tree in the middle of their backyard (Hasibe, interview) (see 5.1.2,



Picture 22 & 23, There were seen examples of growing herbs in the basalt housing type (Candan, 2012).



Picture 20 & 21, Hevsel Gardens is still an important source of food for the city (Candan, 2012).

5.1.3 and 5.1.4 for further explanation).

One important characteristic of houses within and around City Walls is the terraces (flat roof type) of the houses as elaborated in the Map 3 showing the roof types in Old Town (see 5.1.3 Access to resources). Terrace roof is inherent in both historical buildings and informal buildings. However, a look from the top of the city walls showed that they were seldom utilized for growing food. Still, as one farmer Mithat explained, how usual it was to grow a grapevine on the rooftops in addition to a few herbs, flowers and vegetables like tomato, green onion, rose, mint, which were also grown in little boxes put on window sills. Hasibe who was living in settlement #4 (Alipaşa) before moving to mass housing area, said that her neighbors had a few goats on their terrace although it was a rare activity in that district compared to Area #1, #2 and #3. When I asked why the rooftops are not used

for production although providing an extensive space for it, Adil a former resident of Sur said:

Actually the rooftops in Sur are not empty. People use them for sleeping in summers...As you noticed there is no roof there, because during summer they serve as a room without roofs (Adil, interview).

Hasibe explained the reason for empty rooftops by describing some its functions for women who used them for domestic activities such as making bread or tomato paste in summers; washing carpets etc...She also claimed since a few families lived together, crowdedness of house left no space for agriculture in contrast to observations made about the availability of space and possible solutions that can be developed (Hasibe, interview).

Furthermore, remnants of animal husbandry were observed in the barns located in the basements, inside the coves of City Walls and in the gardens of houses outside the Walls (areas #1, #2, #3 and #5 in Map 2). There was small number of animals mostly consisting one or two cows and a few chickens per household. This number was increasing in areas #1 #2 and #3 (Hasibe, interview). Some of the barns went to rack and ruin, while some of them have been emptied out and demolished by the Municipality in last two years within the context of protection of cultural heritage and revitalization of Old Town. In one of the local newspapers, this situation was interpreted by barn owners differently than the Municipality. Following the demolition, some barn keepers claimed that they contributed to maintenance and protection of the Walls for a long time by using its cove as a barn (Ozgur Gundem, 2011). Besides the barns, there were unlicensed butchering activities pursued in the basement floor of generally two-story houses especially in Ben U Sen outside the southern

part of City Walls that allowed the selling of meat with more affordable prices according to Mithat (Mithat, interview). In the interviews with authorities and residents it was also acknowledged that animal husbandry, especially referring to livestock has been on the rise after the migration in 1990s.

In contrast to livestock, poultry raising was more visible throughout Sur especially around the houses with backyards. Around area #1 and #2 not knowing the exact number but a few poultry farms were observed raising duck or turkey. Besides, aviculture was admitted as an important engagement for townsmen. On the sidewalks, there were caged partridges to be used in hunting or consumed later. Some rooftops in town center were used as spaces for training pigeons to compete as carriers. As depicted by Samed (Head of Environmental Protection and Control Department in the Metropolitan Municipality and former



Picture 24. Aviculture has always been a recreational activity for townsmen (Candan, 2012).



Picture 25 & 26 & 27. Except for various activities rooftop terraces were also used to cultivate vineyard in Sur area (Candan, 2012).

Picture 28 & 29 & 30 . Backyard gardening was also a visible feature of the informal settlements in Sur area (Candan, 2012).

agriculture engineer) this activity used to be pursued in adobe buildings-*boranhane*s in the past. While *boranhane*s were still functioning in the past, they used to be an important element for the agriculture, since the manure aggregated there was recycled by the farmers in the city.

Furthermore, Tigris River was an important source for fishing. In addition serving as a hobby for townsmen, it is also a source of income as I have seen in my encounter with individuals selling fish in the center caught from Tigris River. On the way back home from our interview, Mithat, who was also fishing for recreation, was asked by his neighbors if he was coming back from fishing and if he had brought any fish for them.

5.1.2 Who are the urban farmers?

In the interviews, people living in northeastern, eastern and southern parts of Sur were referred to as 'farmers' for doing agriculture in their backyards or Hevsel Gardens and were known for having proximity to their bostans. Moreover, people cultivating in bostans were sharing a commonality for coming from rural areas of Diyarbakir and Southeastern Region. Looking closer, population is composed of people who migrated to Diyarbakir its urbanization in the second half of 20th century or by the enforced migration in 1990s (5. 2.1 Economic Decline and Demographic Changes).

There are fifty families residing in Sur, obtaining income from their bostans in Hevsel Gardens by working there as the whole family (Les Atelier-Dossier, 2011). According to Siyabend who was working in the Municipality's Laundry Center in Ben U Sen, there were families who came to Diyarbakir after enforced migration, cultivating a small plot in Hevsel Gardens (Siyabend, interview).



Picture 31. Small scale fishing activities were also observed (Candan, 2012).

Two farmers who were doing commercial farming in Hevsel Gardens said that they came to Diyarbakir before the enforced migration. They said that most of their counterparts come from the same hometown such as Elazığ and Bitlis, connecting the farmers with a kinship relation. When Faik and his family came to Diyarbakir 50 years ago, that connection helped them find a land and settle down in the city where he was later going to start cultivating. In his own words:

We were 7-8 brothers (meaning from the same line of descent) who bought this land with title deed. We established our own village here. There is no stranger among us (Faik, interview).

It was observed that the people working in Hevsel Gardens were composed of both men and women. Men were more likely to take care of irrigation or selling the products in the

bazaar (Mithat, interview). Still, I came across some women who put a stall in front of their houses selling a few kilograms of vegetable or fruit. Activities like fishery and aviculture were also interests limited to men in Diyarbakir. In the town center, an important amount of vendors consisted of children who were selling a few kilograms of fruits or vegetable in hand carts or small stalls. The ones they I have talked told they brought the vegetable from their backyard while some of them were selling mulberries collected from the trees scattered around the Town.

5.1.3 Access to Resources

Access to labor stood as a crucial element especially in cultivation. According to Les Atelier, the workforce in the gardens relies on labor intensive technique and is made of household members including children, men and women. They cannot make any savings for outsourcing labor force since income from agriculture is not enough for their living (Les atelier, Dossier, 2011). Faik mentioned this concern saying:

At least it makes four-five people with men, women and children altogether (to work in the field)... If there wasn't enough labor force from the family, the business would be losing money (for outsourcing labor) (Faik, interview).

It was also acknowledged in the interviews that the members of destitute households in Sur earned their living during summers as seasonal workers. They made their annual income mainly from picking cotton, hazelnut etc...in other cities.

Land was also found to be an important resource for various types of urban agriculture. According to Les Atelier, Hevsel Gardens are an important source of agriculture production and composed of small gardens, *bostans*. The land comprises both treasury and private owned land and the

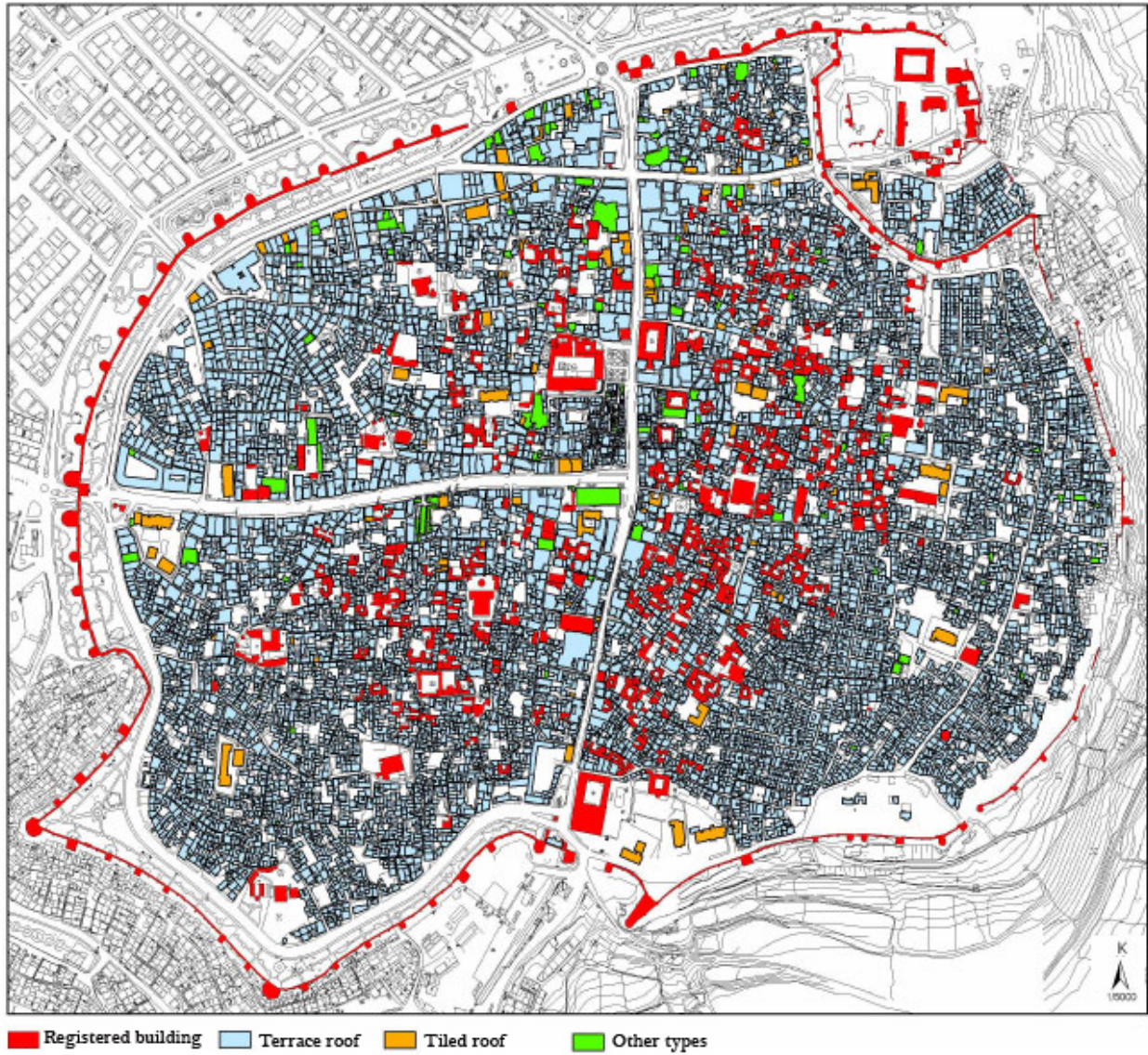
ownership of gardens shows a great variety (Les Atelier, Dossier, 2011).

According to Murat Alökmen, Head of Department of Urban Planning, there were two kinds of ownership in Hevsel Gardens: formal and informal. A big part of the informally owned land was created as the stream bed of Tigris River narrowed down because of dams built on its upper parts and changing climate conditions. This type of land was not registered and consequently informally owned (Murat Alökmen, interview). It was not the only way to own the land informally. There were also people cultivating on the treasury land which has been parceled and sold by some people in the past. Especially the inhabitants of Dicle and Ben U Sen districts around the areas #1 and #5 were cultivating in those lands (Les Atelier, Dossier, 2011).

One of the most common ways to access land is by renting it from the landlords through *icare*. Faik said that *Icare* is a way to lease the land to the farmers in return for around 2/3 of the income generated from agricultural activity. After the migration in 1990s, as the old owners of Hevsel Gardens who were well-off residents of Old Town left their places to newcomers, they also left their agricultural land in Hevsel Gardens to them through leasing. One of the planners in the Municipality, Selvi said that Hevsel Gardens started to be divided into



Picture 32. Tigris River has been an important source for all the agricultural activities around Sur area (Candan, 2012).



Map 3. Roof types inside the Old Town.

The roof types on eastern and southern area outside the City Walls are not shown here. Source: Surici Protection Plan from Diyarbakir Metropolitan Municipality.



Picture 33 & 34. Unused rooftop space also shows a great potential for UA (Candan, 2012).

smaller pieces as the plots were rented out to small scale farmers and also because of being inherited by a bigger number of owners (Selvi Çolak, interview). The people hiring the land through *icare* included the enforced migration population who came in 1990s aiming to cultivate in small plots and the commercial farmers renting out extra land to be able to produce more. Faik, the farmer also mentioned that after the migration flow in 1990s, farming activities started to spread out more above the Valley pushing the area close to the Walls (Faik, interview).

Another place for agricultural activities in Sur was the rooftop terraces. As shown in the Map 3, flat terraces colored in blue are quite widespread. Both historical buildings and informal settlements usually had terraces (flat roof type) (see 5.1.1). Informal settlements located outside the Walls (areas #2, #3 and #5), that are not displayed in the Map 3, also had flat roofs which were actually an important feature of *gecekondus*. As mentioned in the context chapter, *gecekondus* are built incrementally; therefore, the roof is usually left flat for any opportunity to add more floors in the future.

Interviews also provided information about the source of water for agriculture. Tigris River was considered as an important source of water. The water was distributed by the

municipal services or accessed via individual initiatives.

Municipality provided the farmers in Hevsel with the water for irrigation drawn from Dicle Dam. Some farmers like Rifat drew it from Tigris River using a water pump or digging their own well while some others used tap water for their backyards (Rifat, interview). According to Faik and Samed Uçaman, the head of Environmental Protection Office and Control Department, Anzele spring flowing underground in addition to underground water coming from Mardinkapi (Southern part of City Walls) was used as important water source. In addition to these, *haramsu* has been a source of water used for irrigation of Hevsel Gardens. *Haramsu* meaning “forbidden water” was named after taking its source from sewage flowing from the northern part of the Old Town. Uncertainties about this source will be explained in 5.1.5 Health and Environmental Challenges. According to Samed, irrigation system of Hevsel was still not very efficient creating obstacle in front of obtaining higher amount of crop (Faik and Samed Uçaman; interview).

There were also remarkable examples of recycling and use of organic waste within urban agriculture. In the interviews with inhabitants, it was explained that manure from livestock or poultry raising was used as natural fertilizers without giving much information to what extent all the manure was utilized. Farmers like Rifat were asking for natural fertilizer from their neighbors and friends raising sheep or cows for free. It was also observed that there were some vacant areas on the eastern part outside the City Walls where some of the manure was dumped. Even the people that I talked on the streets who had just a few chickens were trying to use their manure in growing plants in their garden or flowerboxes. Along with that, there were some farmers like Faik buying artificial fertilizer in addition to manure provided by their animals.

According to Samed, an important tradition in Diyarbakir's garden culture was the pigeon manure collected when there were still some *boranhane*s. Pigeon manure, used to be given away to farmers for its nutritious structure, was also the secret for Diyarbakir's delicious watermelon growing on the riverside (Samed Uçaman, interview).

During my walks around the area, I observed that most of the household waste was littered on streets in the area. The garbage on the street was creating sanitary concerns among people and authorities. Nevertheless, it was still being a major problem in the area because of several reasons like lack of garbage bins, and people's littering habits etc...In 2012 Diyarbakir Metropolitan and Sur Municipalities started campaigns to accustom people using garbage bins for proper littering. Some residents complained a lot about improper garbage collection, creating sanitary concerns. The point was that the garbage on the street was mostly dug out and consumed

by street animals and chickens while some household fed their own animals with organic waste. Lastly, it was also observed that various materials especially the metal ones were used as fence for the gardens, or as pots for growing vegetable at window sills or rooftops. The study area was noticeable for its proximity to services and potential customers in the center. When the wholesale market was located in town center around area #4, the market was quite accessible. There was still one open local bazaar set up next to the



Picture 35 & 36 & 37. Organic and non-organic waste was recycled in different ways (Candan, 2012).

southern gate of the City walls where fruits, herbs, animals were sold. Besides, on the main road in the Old Town center it was possible to see people selling various potherbs brought from Hevsel Gardens in small stalls or in barrows. There were also bazaars (Aşefçiler Bazaar) where different agricultural tools were produced and sold.

In addition, the wholesale fruit market which is now outside the center was an important factor for migrant population in 1990s to settle down in Sur when it still existed there, according to Hasibe making proximity to the bazaar and affordability important resources. The proximity to the bazaar with affordable prices was one reason why people moved in Alipaşa (area #4) during the 1990s (Hasibe, interview). Most people I interviewed mentioned that there were still some people around Diyarbakir preferring to buy vegetables from people cultivating in Hevsel Gardens.

5.1.4 Purposes of urban agriculture initiated by inhabitants

I asked farmers and other residents for what reason they were pursuing agriculture, and if they perceived the current activities as a livelihood method. Three main reasons were illustrated in interviews.

One type of agriculture was serving for cash cropping aiming to generate income. There were some families selling their products in the city center or wholesale vegetable market to maintain their living. As the farmers Faik and Rifat depicted production in Hevsel Gardens was mostly associated with commercial purposes. Livestock raising was done by some households that raised and sold animals in the market. Unlicensed butchery was also a source of income which releases the products directly to markets without raising any livestock. Fishing in Tigris River

except being a hobby was another source of income. It was found out that there were two types of cash cropping divided into the ones making an income as a business or for small scale contribution to household by selling the surplus of their products obtained from their backyard or Hevsel Gardens.

Except for the cash cropping, urban agriculture contributed to some households in smaller scale. Little income was obtained by selling the excess dairy product or crops remaining behind the household consumption. Mevlüde mentioned that there were also families cultivating in Hevsel who sell their products only after supplying their need for food (Mevlüde, interview). They were doing it in smaller scales compared to first group.

Kids were important actors who took the products especially fruits such as mulberry or fig to bazaar, and sell them on stalls on a daily basis. The vendor kids that I talked to in town center explained that they want to contribute to their household. Ferit, a resident in Ben u Sen told that even raising a few chickens would be creating economic difference for families in his neighborhood, and elaborated on the kids' role for household:

You see kids selling fruits. At least they bring money for bread and butter. That amount of money ain't hay (not to be underestimated) for people living in



Picture 38, 39. Except for cash cropping some households were selling surplus products obtained from their backyards. Mostly they were taken to the market in the center or just in front of their houses (Candan 2012).



Picture 40 & 41 & 42. Products from Hevsel Gardens and backyards were put on the market mostly in small scale (Candan, 2012).

Ben U Sen. In any case these people cannot live here if they don't know how to use these resources (Ferit, interview).

Nevertheless, Adil, a former resident of Old Town, expressed that small scale contribution was limited to a small segment of inhabitants not reaching high numbers. He expressed that these resources were not well seized upon by many residents showing the example that most fruits mostly fell to be rotten on the ground (Adil, interview).

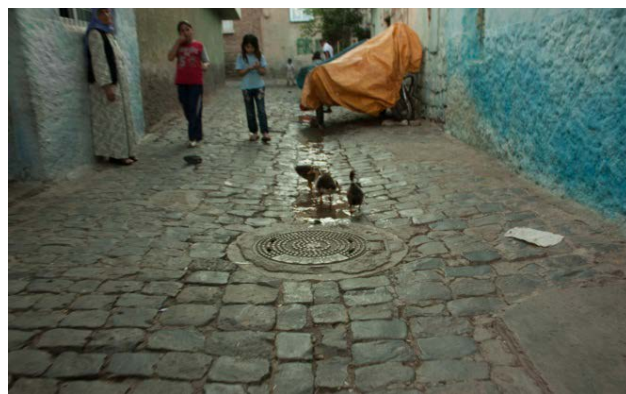
Keyf meaning for taking pleasure was another purpose for doing agriculture in city. Planting in backyards, window sills or roof terraces; small scale poultry raising, fishing were generally considered to be done for *keyf* in addition to applying little source of food.” Ömer, a resident living in another informal settlement outside the Old Town expressed his curiosity for poultry and pigeons:

We have a few chickens. We only take one egg per day. It does not have any economic return...We are buying the wheat for them (pigeons). But, this is a passion. When the bird tumbles in the air, it kind of gives exhilaration. This kind of stuff is common here in Diyarbakir (Ömer).

During the walking interview with Mithat in Hevsel Gardens we came across his friends



Picture 43. Greenery around the windows were done mostly for recreational purposes and beatifying the environment (Candan, 2012).



Picture 44. Poultry raising inbetween the houses was also mentioned for its recreational purposes (Candan, 2012).

living around area #3 and cultivating in their *bostan* in Hevsel. They had regular incomes working as civil servants and did not expect to yield any kind of profit out of that. They kept the garden's crop for themselves or for their friends and relatives. Their intention for cultivating was its pleasure-*keyf* and for their health which was a reason for them to keep living in that area:

We have luxurious houses in the new developed part of the city, but we live here. I never exchange the quality of living and working in this garden with any feature of these expensive houses. This is good for my health. (Hüseyin, interview)

In the interviews most UA activities in Diyarbakir were referred to as cultivation or livestock raising in Hevsel Gardens or in countryside and livestock activities. It took a while to dig into small scale examples (windowsills, rooftop or backyard gardening, aviculture). This type of UA was mostly distinguished from commercial activities by respondents and addressed for giving *keyf* or aesthetics into that space. For instance, Adil said:

There is not like a small contribution to household. You can't do it on balconies. Even if they do it would be just for its aesthetics. Let's say they put pepper, tomato, and mint in balcony as a decoration. It's not possible to get enough from

that to feed the household or to obtain a source of income. What can someone do with the product cultivated in such a small area? (Adil, interview)

In contrast, Rifat, a farmer in Hevsel Gardens said it was not possible generalizing his own experience of farming to everyday life of other inhabitants:

No one cultivates for its keyf... If there is no commerce at the end nobody ever does anything. Does it bring any contribution to household? If there is no commercial benefit, there is no benefit for the household. (Rifat, interview)

Mevlûde, who was a former resident of Sur and had a family garden there before conveyed a different experience from what Rifat said:

Gardening was sort of an income for the household. We used to eat in abundance, we were storing even for the winter, conserving. My mother was selling the milk-yoghurt from a few cows. She used to know how to grow and milk the cow (Mevlûde, Interview).

So, the interviewees showed that people had different perceptions and experiences in relation to its purposes and contribution to household economy.

Another example of UA was observed in Mithat's garden located next to City Walls across his house who was not expecting to yield any income. He was a civil servant working in a hospital as a cleaner and explained that security concerns around his house at night made him take action on that plot. After the houses next to the City Wall were demolished for the urban renewal project, the land across his house turned out to be ruined and vacant. At nights, this place became a meeting point for people drinking alcohol and such. He fenced the area to avoid public intoxication at night and later it was followed by his neighbor. He cultivated peach

trees, cucumber, and zucchini in that land. He said that the area became safer for his family and his neighbors again after he fenced and protected this piece of land from the strangers (Mithat, interview).

5.1.5 Health and environmental challenges

As put forward by Les Atelier, the production in Hevsel Gardens once used to meet vegetable and fruit demands of the City, declined recently due to environmental pollution, inappropriate irrigation techniques, use of wastewater and chemicals for pests (Les Atelier-Dossier, 2011). Irrigation of gardens via waste water *Haramsu* (illicit water) stood as a crucial and long-lasting problem. In 2000 the Municipality launched a new infrastructure system in Sur which cleaned the irrigation water by distinguishing rainwater from waste water (Les Atelier, 2010). However, during the interviews uncertainty came up about if the use of wastewater was totally removed or not (5.3.2 Removing the Health Risks).

Another issue was related to animal barns and unlicensed slaughterhouses. I came across some parts of dead animal bodies on the streets especially in area #1, #2 and #5. Besides, the manure coming from the animal husbandry used to be dumped particularly on a vacant land in the area #2 outside the eastern part of City Walls. It was also mentioned by Mithat that the manure accumulating there was taken away by the gardeners. Nevertheless, its random and uncontrolled dumping can create sanitary concerns.



Picture 45 & 46 & 47 .Despite of the tendency to recycle the household waste, those views were creating sanitary concerns (Candan, 2012).

5.2 Impacts of regeneration project on agricultural practices

In this part, the impacts of regeneration project (see 4.2.2 Physical changes in Sur) will be investigated through the feedbacks of current and former residents of Sur and personal observations. How the practices in Sur will be influenced and if the new housing area can be utilized for those practices will be looked from people's perspective.

As a part of urban regeneration project the residents of Sur were offered new housing located in the public housing area by TOKI (Housing Development Administration of Turkey)-Çölgüzeli 16 km away from the city center. The housing area was surrounded with agricultural land being engulfed due to the city sprawl. TOKI housing was juxtaposed to some newly built houses and rural houses. Despite people emptying Sur for TOKI housing in Çölgüzeli, some TOKI residents had already sold their apartments to move back to town center finding an affordable housing as Mevlüde, a TOKI housing resident, told (Mevlüde, interview).

5.2.1 Access to resources in TOKI housing area

The major problems and potentials in new mass housing area were assessed referring to basic resources such as land, water and market. As one farmer Rifat told, resources are crucial:

Agriculture is what we have been doing ever since I could remember...If there are resources in Çölgüzeli we can start farming there. (Rifat, interview)

Water is an important factor for the vitality of agricultural activities. There was an artificial lake 5-6 km away from Çölgüzeli. According to Adil, one cannot compare it with the irrigation accessed by Tigris River and ground water in Sur. Faik who was a farmer and who was negotiating with the Municipality not to sell his house with loss, expressed his worries for the.



Picture 48 & 49 & 50 .New housing area TOKİ seemed to lack of crucial resources for people's livelihoods (Candan, 2012).
Figure 7. TOKİ's logo (source: toki.gov.tr)



Picture 51 & 52. Satellite view showing the size difference of agricultural land around mass housing area and Old Town. The one above is the bird's eye-view picture of Colguzeli made of large fields (above) and the one below is the picture of Heysel Gardens that are divided into smaller segments (below) (Source: Google Maps)

lack of water there by calling the area as a 'desert' and mostly suitable for dry farming (relying low amount of irrigation) in comparison to the abundance of water in Tigris Valley. One major problem mentioned by inhabitants in TOKI-Çölgüzeli was the proximity to bazaar. Çölgüzeli, referred to as a 'hardship area' (Mevlûde) had only one main central bazaar with two hairdressers, one fruit seller and one bakery. Most of the women I talked to in TOKI housing complained non-affordable prices of goods sold there. Not any stalls were set on street since it was forbidden inside housing area. Still, it was possible to come across a small grocery outside (Mevlûde, interview).

Access to land was especially emphasized by the residents. One problem raised by the people subsisting on animal husbandry was about having access to barns in new housing area. During my walks in the northeastern parts of Sur (Dicle-Fatihpaşa Districts) I met families that were reluctant to move out of their homes. The conflict was that they were not offered any possible barn locations by the Municipality in their new housing although they demanded it. They were skeptical about how to continue animal husbandry there. Therefore, they still could not have agreed in any terms with the Municipality.

Similarly, Mevlûde said that his grandfather who had a barn in Sur demanded also a barn from the Municipality; however, it was rejected. They also thought about renting a barn close to their house; but doubted if the income would compensate the rent (Mevlûde, interview). As mentioned before, Çölgüzeli was located in the middle of large fields used for dry farming generally. All the land around TOKI was owned privately according to Adil. Mainly, the interviewees said that most of that land was owned by land barons where feudal structure was still evident. Comparing

bird's eye-view picture of both Hevsel Gardens and Çölgüzeli (picture 52 and 53), one can tell that the latter is divided into larger allotments. Another possible land close there was the common green area in-between buildings inside TOKI housing area. Every household were obliged to pay around 220 TL (\$123) per year as a contribution for the greening and beautification of common area. According to Adil, the housing management has not done much about it but only planted trees which later dried up. Women were sitting in groups on the green area, complaining about its costliness and being restricted by the housing management to do any changes in green space. Similarly, Hasibe remarked on that:

It (farming) is forbidden in TOKI...You cannot cultivate any single place here. And all the fields and plots around here are owned (Hasibe, interview).

This situation refers to where the ownership laws are implemented carefully. It was contradicting with other experiences in Suriçi where there some parts of agricultural land were occupied. Besides the common area, there were balconies with 5-6 m² space in each house where people grow a few vegetables in pots. It was like a continuation of the old habit to grow food in Sur. Access to this land and the feasibility of cultivating in Hevsel Gardens after moving was considered as crucial by Sur residents. I asked farmers making their living out of Hevsel Gardens about how to continue their business under the new circumstances. Both Rifat and Faik farming in Hevsel expressed their worries about the future of their gardens due to the distance. Accordingly:

You do not have any choice besides keep going. But, it's far away. You cannot go that distance with all your family. You can't do it without a car. In case you come with public transport, you need to

walk to the gardens also for a while. So that, transportation costs 20 TL (\$11) per day. We do not have a car right now...On top of it, now our garden is next to our house. If I will live over there in Çölgüzeli, I would be starving. Then, people will pluck everything in the garden. Now, we all protect it as a neighborhood. If not, nothing will be left in the garden. But, after we leave Sur the neighborhood will be gone also... (Faik, interview).

Therefore, access to Hevsel Gardens with one-hour trip was anticipated to make the surveillance of gardens and transportation an issue. Financial investment in transport was mentioned as a must due to move the family members as labor force everyday and because of the time.

5.2.2 A recently formed garden inside the mass housing area:

While walking in the green area of TOKI in Çölgüzeli, a little *bostan* caught my attention. Two friends, Mehmet K. and Ali, fenced almost 70m² of the common area and transformed it into a new *bostan* although it was forbidden by mass housing management. There were walnut, pomegranate, fig, apricot, elaeagnus, date palm trees and vegetables. Since Ali was not there I only talked to Mehmet K. who moved there from Bağlar (an informally developed area in the new city) because of its polluted air, lack of green space



Picture 53 .Municipality built tandoori ovens in the neighborhoods in order to empower women by producing and selling bread (Candan, 2012).

and crowding. He cultivated and fenced the area because:

All of the trees that the mass housing administration planted in the common area have dried. Then we just wanted to green that area...We have fenced it around so that no kids or animals would enter and harm the plant. (Mehmet K, interview).

They were using the irrigation water which was normally used for watering green area. Access to organic manure was very limited because the housing managers as well as some residents did not let them raise chickens which could provide the manure. Instead, they were using chemical fertilizer. Mehmet K. said that housing managers and doorkeeper of their building were not letting them cultivate in peace since it was forbidden to do it in that site. They were complaining that the rest of the residents have not taken them as an example to green the common area.

5.3 Planning Policies influencing urban agriculture in Sur

In this part how authorities and planners in Diyarbakir Metropolitan and Sur Municipalities perceived and intervened urban agriculture will be explained.

5.3.1 Encouraging Urban Agriculture

In last a few years, the Women Support Center (KADEM) in Sur Municipality took certain urban agricultural initiatives to enable small scale business potential in Sur targeting women living in poor households. First one is the *Self-sufficient Houses* Project. It aimed to decrease external dependence of households by delivering thousands of tomato, eggplant, and cucumber seedlings to be planted in backyards, rooftops and balconies. According

to Mehmet Altunkaynak from the municipality, they were especially keen on distributing the seedlings to village-neighborhoods¹⁶ as well as inside Old Town:

There are 16 neighborhoods in the inner city without having much spatial potential for planting due to urban structure...Still; we tried to give them to everyone to be cultivated in their backyards and even in bigger cans in their balconies. (Mehmet Altunkaynak, interview)

KADEM organized women to prepare and sell home-made products like pickles, tomato paste and traditional bread baked in tandoori ovens existing in neighborhoods. Products found their customers in supermarkets and food stores which the Sur Municipality made a deal with (KADEM, 2012). The number of women generating income only by making bread was around 80-90, according to Sur Municipality Mayor Abdullah Demirtaş, who depicted that this project empowered and liberated women seriously in front of men by participating in income generation (Abdullah Demirtaş, interview).

Lastly, KADEM provided women with education for growing mushroom and silkworm breeding. Samed said women were contributing to their household by selling mushrooms they grew in vacant buildings or basements by only using the resources of household until it was fined and permitted by the Agricultural Ministry. The project was disrupted due to not having product permission (Samed Uçaman, interview). Nevertheless, authorities associated the fine and such encounters of central government with political reasons.

¹⁶ There are 52 neighborhoods governed by Sur Municipality, and 16 of them are located in the inner city area. The rest are the village neighborhoods being former villages and current neighborhoods located inside the municipal border.

On the other hand, periphery was highlighted as the proper area to cultivate in cities. In the interviews with municipal officials, the question regarding types of urban agriculture in city of Diyarbakir was replied referring to agricultural activities in periphery and Hevsel Gardens. Other possible agricultural possibilities in city center were not mentioned. Municipality's plan to protect agricultural land against urban sprawl and inclusion of agricultural land use in periphery were some of the actions that were mentioned (Selvi Çolak, interview). Agriculture was understood as a big scale activity that can take place in periphery. It actually does not need to be implemented that way (5.1.1 Type of urban agriculture). UA in city center was reacted negatively because of its rural features; lack of land for it in city center; and its incompatibility in comparison to other land use options considering costliness of urban land. Some of the opinions about UA in city center as follows:

Our area is urban, and agriculture is not proper in that space...When you walk through Sur, you'll realize the only possible location for agriculture is around the walls. But, it'll be green belt...Besides, adobe building and vacant spaces are very limited in Sur. Except a few districts...it's completely concrete structure. (Mehmet Ali Altunkaynak, interview)

While this view was automatically decreasing the opportunities of UA in the city, it was not found in line with the modern development of the city:

You can use city center as a touristic place, and bring historical units into sight, demolish all the ruined buildings, or revise the old buildings. But, agriculture



Picture 54 .Starting from 2011, municipality started to demolish the barns located inside City Walls (source: Zaman, 2011).

Picture 55. Mushroom growing was another way of encouraging production by women (source: mrcashop.org).

Figure 8. Logo of Diyarbakir Metropolitan Municipality (source: diyarbakir-bld.gov.tr)

Figure 9. Logo of Sur Municipality (source: sur.bel.tr).

in the city is not very...not very cultural. It can be only implemented in one's own garden... (Samed Uçaman, interview).

Urban and rural division was another issue emphasized in the interviews which could be actually not evident all the time. When the question about the possibility of combining agricultural practices with urban life instead of building a village in remote places was posed, I have received the following answer from one of the planners:

There is no such a vision, and it's impossible from my own vision. Thinking in all reason, for instance consider that you are working as a civil servant, and deal with all kinds of nuisances all day long. You want to relax when you go home...but you just hear the noise of tractor of your neighbor, doing agriculture. It is kind of hard. It can be only realized with the Agricultural Villages. Otherwise, modern urban structure and agriculture at the same place...It's possible only when the land is really wide. You will have your house in 500 m2, and next to it there will another plot like that... (Hikmet Öcal, interview)

In that framework, plot size stood as an issue for pursuing agriculture; therefore, periphery was accepted as the right space for UA and hobby gardens was considered as a possible way to do that:

My opinion is about using these lands (showing the 15-20 km outside the city, close to Çölgüzeli) for agriculture instead of using the land in city center...Therefore, we want to seize upon this site as hobby garden...Let's say our citizen would come and apply for that saying they want to cultivate something on their own. There will be a small cabin and water. We want to give it for free. But, it could have a small amount of fee. Plus, the hirer year...We hope starting it very soon... (Samed Uçaman, interview).

It was observed that urban agriculture was perceived as a rural activity that could only be benefitted by its pursuit in larger scales in

periphery. Therefore, planning policies intended to impact agriculture in periphery. It was also strengthened with the belief in its clash with modern urban life.

5.3.2 Removing the Health Risks

Access to clean water was problematic in Sur (see 5.1.3 Access to Resources). In last years, the Metropolitan Municipality has provided Hevsel Gardens with clean source of water for agriculture which was taking its source from Tigris Dam. However, relying on the interviews with inhabitants and officials, irrigation of Hevsel Gardens stood very controversial. Several farmers claimed that sewage water was still being used in agriculture because municipal water fell short of the needed amount of water for irrigation. Therefore, some farmers tried to solve it by joining clean water with sewage water-*haramsu*. That controversy was asked to authorities in advance, but was not received any clear and convincing answer. Another problem was about the use of city water for agriculture. One official said that tap water was used in small scale agricultural activity in Sur for irrigating backyards resulting with water shortage in the city which should be taken seriously (Mehmet Ali Altunkaynak, interview).

In relation to animal husbandry, Metropolitan Municipality was actively working on removal of barns and unlicensed butchery from the city to newly built slaughterhouse outside the urban area. Sur Municipality demolished most of the barns especially in areas #1, #3 for creating visual and environmental pollution and threatening public health (Ozgur Gundem. 2012). In interviews the importance of clearing the Old Town from barns was highlighted in the context of urban regeneration project and sanitary conditions specified by the Municipality:

Animal husbandry causes certain hitches in the city. Flies, smell etc...therefore the Municipality takes a dim view of that...It does not allow raising animals inside the city. We have just demolished one of two barns in the Old Town located side by side....Animals have been evacuated. After demolishing the entire barn, we cleaned and disinfected it fairly good...Thus, none of these will be left except for keeping a few animals (referring to chickens etc...)There is no chance with facing such a landscape in a social city, and it is forbidden by law. Unfortunately we as municipality are forced to evict them. Because it's intolerable in terms of laws and life in a social city particularly a historical and touristic one (Mehmet Ali Altunkaynak, interview).

Removal of animal husbandry was not a recent decision taken by the Municipality. Former governors similarly intended to take action against it. For instance, Omer who is living in Aziziye in an informal settlement, where new housing has been developed, said that the Municipality wanted to remove all of the barns including his own around 15 years ago. Main reason in his words was as follows:

There were a lot of barns here...No animal husbandry remained here. After the public housing and other houses built, the residents of public housing complained about the smell coming from barns. They are more like civil servant types living there, more middle class compared to Diyarbakir in general (Ömer, interview).

Most of the municipal actions were intended to remove cattle raising, and did not take any measures against poultry raising or aviculture which was an important activity in Diyarbakir. Samed from Metropolitan Municipality said that they have future plans for revitalizing *boranhanes* (houses for keeping pigeons) without describing their locations.



Picture 56. City Walls after building the green belt (Candan, 2012)



Picture 57. Illegal farming activity done by a farmer next to the City Walls (Candan 2012).

5.3.3 Consideration of Urban Agriculture in Sur Urban Regeneration Project

Urban regeneration project (see 5.2.2 Physical Changes in Sur) was found to be related to urban agriculture in several aspects which will be explained in this chapter based on the interviews with planners and municipal officials, urban agricultural solutions proposed in Les Atelier's workshop.

The interviews with the inhabitants showed that there was a general discontentment with TOKI's housing alternatives for various reasons that were already acknowledged by municipal authorities in interviews. In the evacuation of houses in Sur, while the Municipality agreed with most of the people to move out from

their houses there emerged resistance from some families against it. They did not agree on amount of money given in return for their houses. Some other families were unwilling to leave Sur for particular reasons. According to Head of Expropriation Office in urban regeneration process, urban agriculture activities pursued in Sur was an important factor for resistance:

%30-35 of the inhabitants doing agriculture in Sur still not evacuate their houses...there are animals, vegetables...fruits gardens. Because of these, people do not want to evacuate there. (Deniz Akdemir, interview)

Based upon the information gathered from authorities in the Metropolitan Municipality, they took a new housing model Agricultural Village, *Tarim-Koy*, to TOKI as a part of urban regeneration project. It was proposed for

households making a living via urban agriculture in the informal settlements which will undergo urban renewal process. It was composed of rural elements to facilitate growing food and raising animals around one's house built on a plot for 500-1500 m². They will be located inside the municipal borders within 25 km and close to livestock market. According to Deniz Akdemir, the Municipality wanted to provide housing specific to Diyarbakir's local conditions by going beyond uniform housing type. Generally, urban planners and authorities in Diyarbakir were happy to propose new housing model. Agricultural Village was expected to be embraced especially by urban farmers living in informal settlements:

If implemented, this will be first of its kind in Turkey...it will be the third solution in addition to exchanging houses in return for payment and mass



Picture 58. In the urban transformation area inside the Walls there were still some families who could not have come in terms with the municipality and still living in the half demolished area (Candan 2012).

housing (Deniz Akdemir, interview).

Agricultural Village was TOKI's waiting list for approval of choice of land. TOKI which is both developer and financier of the project has decisive power on land choice (5.1.2 Public administration in Turkey and decentralization). Planners in the Municipality described the initial criteria for that to be located outside the development area designed in 1/5000 scale plan. Pirinlik or Karacadag, the rural provinces 20 km and 60 km away from Diyarbakir center, were some possible locations. Murat Eminoğlu the Directorate of Urban Regeneration Office in the Metropolitan Municipality described the conditions as "an area that is more rural and suitable for production..." Same authority explained that the location of TOKI housing in Çölgüzeli, which was 17 km far from the city center, was regarded as improper for Agricultural Village because of the residential development there.

As mentioned in 5.2.2 Physical Changes in Sur a workshop was held by Les Atelier in 2011 when three teams brought up proposals for urban renewal project in informal settlement-Ben u Sen located in the south of City Walls. In the workshop, 2nd and 3rd team put special emphasis on pursuing urban agriculture activities in the case of renewal of Ben u Sen. Relying upon the jury dialogues and interviews done with the Municipality during the field trip, the reasons for discarding agricultural solutions will be explained in this part.

In the workshop, agricultural production in vacant spaces was an overlapping theme among all proposals. Broadly, they suggested cultivation around Tigris Valley (land owned by the University, remnants of ruined houses, and green belt surrounding the city). Especially, functional use of green belt around the City Walls was emphasized. Green belt,

once being a business area with unlicensed buildings, has been transformed, and was functioning as recreational public space. It covered an area surrounding City Walls both from inside and outside with a diameter changing 50-100 meter. Green belt was mentioned as an obligatory measure regulated by the General Directorate of Cultural and Natural Heritage in order to protect the Walls as a cultural element.

On the other hand, the green belt was claimed by authorities as obligatory because of the legal framework to protect cultural heritage, to reclaim the history, to provide access to public space for everyone and to prevent the danger of rocks falling from some parts of the city walls as depicted below:

City Walls are very important for us...Green Belt is an absolute must for us...Actually; the proposals from the workshop were quite good...one's doing agricultural production in his/her own backyard or rooftop...But, as I mentioned before, they were ignoring our reality...Green belt needs to be there. So that, city walls will come to light, also our citizens will be safe from the danger of falling rocks from the walls.... (Murat Eminoglu, interview)

Green belt is the right protective area for the walls. An agricultural belt would bring up various problems. Our people would cause destruction just to extend his/her land for 1 meter (meaning to occupy extra land for cultivation). We cannot chuck away on our history just for a 3-5 meter agricultural land...Its counterpart does not exist in any other place in the world...We cannot risk it on account of creating a few hundred meters agricultural land (Mehmet Ali Altunkaynak, interest). Its importance as an urban public space was also highlighted:

The green belt is made use of as public space targeting the citizens from each segment of society...There are areas for sports, fitness and walking, sitting or resting. So, one does not need to sit and pay in a cafeteria... (Samed Uçaman, interview).

Currently being a public space, its private use could result with its complete closure to public. After years, one could claim over the land because s/he'd have been cultivating there, and terminating its public use, making it a space only for the use of inhabitants in Ben u Sen (Selvi Çolak, interview).

The improperness of agricultural activity in the urban environment:

Can you include urban agriculture in the green belt? On behalf of increasing the income of existing public? While improving a city, you need to arrange urban areas. While arranging that, you need to have serious limits. There must be areas where urban culture could flourish...You can grow flowers in different colors in those areas; however, agricultural areas or small scale businesses have a different structure (Samed Uçaman, interview).

I don't believe that pursuing one's rural habits is not a viable solution. These people live in cities, and need to adapt into them. How are their economic ties going to be related to the city? Or, their contribution? In any case, next generations do not

want to involve in animal husbandry or cultivation. (Murat Alokmen, Ben U Sen Jury, 2011).

How could one live off only by relying on agriculture? They (decision makers) think that a more realistic means of living should be presented (Selvi Çolak, interview).

But, most importantly the legal framework was raised as the main reason for avoiding agricultural use of green belt by various officials:

It is an obligatory process because we care for the laws and we need to submit them. Therefore, we need to consider green belt and prevent the projects exceeding that limit (Osman Baydemir, Diyarbakir Metropolitan Mayor; Ben U Sen Jury, 2011).

Loyalty to legal framework raised by various authorities in the interviews was challenged by a planner –X- from a local governance network who brought up the possibility to resist against legal framework:

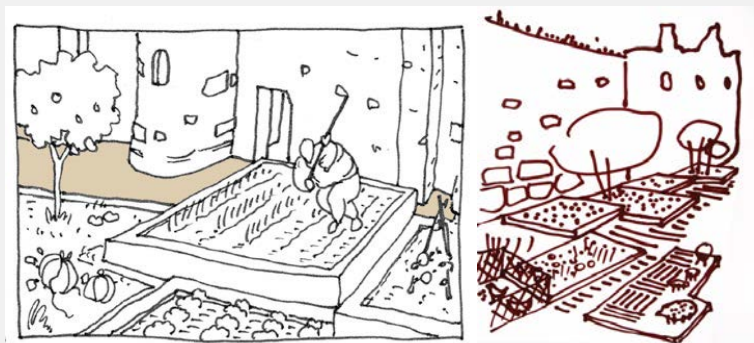
BOX 7. PROPOSALS IN Les ATELIER'S WORKSHOP FOR FUNCTIONAL USE OF GREEN BELT BY EACH TEAM

Figure 10 & 11. Drawings showing cultivation next to City Walls (Source: Ben u Sen-Dossier, 2011)

Group1: Creating a uniformly wide green belt around the walls unnecessarily sterilizes the living heritage which it embodies.

Group2: Instead of a generic grass (green belt) that keeps users at bay, urban agriculture and related commercial programs proposed within the towers attract people to the walls like a magnet.... It is our aim to implement productive green spaces throughout the city in the future.

Group 3: In the area closest to the wall we suggest, instead of the green belt, a mosaic of small gardens (an alternative way of enhancing the wall's heritage value), small paddocks for the animals, sheds a few houses; thus creating a dynamic spatial and functional 'park' along the wall...(Ben U Sen Dossier, 2011).



The feedbacks given to Les Atelier's workshop are non-sense. They say "it's so utopic, how can you apply it etc...it's against legal legislations"...for god's sake...you are coming from a revolutionary organization, it's apparent who you're... are you going to be seized by legal regulations? You got the full support of Diyarbakir community. You don't see that! (X, interview)

In general, feedbacks given by the officials showed the indispensability of the green belt as a recreational park as well as their skepticism towards the feasibility of urban agriculture in urban space. It was not really perceived as an important contribution to livelihoods of urban poor or a small scale businesses pursued in small plots. Therefore, it was observed that the agricultural use of public space was found undesirable for many planners, and as an obstacle in the progress of the city.

5.3.4 Conclusion

During the field trip, agriculture was observed as a widespread activity motivated with purposes like cash cropping or recreation done by children, women and men living in Sur area. Cash-cropping has been done in different scales by Sur residents. Especially cultivating in Hevsel Gardens or livestock raising were done for subsistence by some households. Besides, there were also some families hardly relied on it for economic gain. Except for cash cropping, aesthetics and recreation called as *Keyf* (for taking pleasure) became prominent elements for motivating Sur residents to practice UA especially in their backyards or terrace roofs, windows etc...On the other hand, there were environmental and sanitary concerns arising from these activities: merging of wastewater with irrigation water, livestock activities along with improper treatment of household waste and animal waste, illegal slaughtering activities.

Urban metabolism is a term emphasized by Mougeot (2000) for using the tangible or intangible resources found in an urban area. The results for UA in Diyarbakir showed the viability and unique use of urban metabolism specific to Diyarbakir. UA was observed to be eased by the access and proximity of the Sur inhabitants bearing agricultural skills to various resources in Suriçi where various forms of urban agriculture co-exist. Still, there were agricultural potentials not fully taken advantage of such as rooftop gardening due to lack of tendency to utilize it or Hevsel Gardens as a result of wrong cultivation techniques. Nevertheless, highly existing assets in study area-Sur- showed the possibility of implementing it as a livelihood strategy there.

Besides, some agricultural examples were observed to make this area special: aviculture, silk-breeding because of the concentration of mulberry trees; fishery as a result of the juxtaposition of the Town next to Tigris River; growing watermelon by using Diyarbakir's cultivation methods that is unique to Diyarbakir's soil and pigeon manure system; the way that the land was divided and rented out in Hevsel Gardens which was feasible for urban poor; backyard and rooftop gardening because of the way informal settlements were designed (see 5.2.1 Access to resources in TOKI housing area); recycling organic or non-organic waste in gardening etc...Each example illustrates more about how urban metabolism is working in that city. Collecting pigeon manure in large scale or chicken manure in household scale has been used in growing food with better quality contributing to urban metabolism. Social networks among people also contributed in by increasing the accessibility to any necessary resource especially land.

UA is closely related to the policies of planning institutions which had direct or indirect

impacts on it according to the livelihood framework. In the study it came out that urban agriculture in Suriçi has not been addressed by planning in a wider sense through agricultural policies or projects influencing Suriçi due to (I) its limited perception by local authorities and (II) indifference of central housing policies' towards it as a local component.

Agricultural activities in Suriçi that mostly have been tolerated by local authorities until last years, started to receive encouraging, passive or punitive reactions from the municipality based upon its aim, location, product, scale and hygiene. Especially, cattle raising around the City Walls have been removed by the municipality due to its inappropriateness for inner city. The municipality has initiated small scale agricultural projects in Suriçi for empowering women or for large scale agricultural projects in the periphery. Despite being aware about urban agriculture in Suriçi as long-established tradition, and its possible contribution to poor households living in Suriçi, local authorities showed reluctance to include that activity in the 'modern' image determined for Diyarbakir and during the revitalization of Suriçi. The project was accepted as a path towards a modern and touristic city claiming its cultural heritage through historical identity. The urban agriculture has been envisioned as an element in periphery and in larger scale which is different than the agricultural type pursued in Suriçi. In that sense, spatial opportunities for UA in Suriçi were not recognized by the Municipality.

In the context of urban regeneration project it became apparent that urban agriculture was completely undermined in newly formed mass housing area designed by the Housing Development Administration (TOKİ) for Sur inhabitants. It was observed that residents

especially urban farmers doing cash cropping were displeased about living in the new place. Possibilities for urban agriculture in new formal housing area where Suriçi people moved to during the renewal project were limited because of lack of access to resources due to increased formality (centrally decided mass housing location, formally managed green space, big plot sizes of surrounding fields, formal land ownership); and the distance to their land in Hevsel Gardens. It especially created worries among urban farmers doing cash cropping. As a general problem, lack of resources even caused some people moving back to city center. The Municipality being subservient to TOKİ due to financial resources approved this housing model although finding it undesirable and uniform.

6. DISCUSSION

As Veenhuizen depicted, UA can be re-defined in specific to each context as a locally distinct activity (Veenhuizen, 2006). Urban agriculture in Diyarbakir was distinguished from its counterparts contextually due to its purposes as well as its own use of resources found in specific to its urban metabolism. This study elaborated the authenticity of the way the urban metabolism is utilized in Sur (see 5.3.4 Conclusion). Nevertheless, genuine ways of utilizing urban metabolism around UA was highly ignored in the regeneration of Sur area since UA was not taken as a local component. Planning agenda did not show much effort for enabling UA in Sur in a wider sense. Although UA was addressed as an activity to take measure against its environmental threats, it was ignored and not enabled as a widespread activity that inhabitants living in informal settlements were pursuing (see 5.3 Planning policies influencing UA in Sur). Such rupture between local context and planning agenda stirs up questions on what is sustainable development and planning.

Actually, one pattern that became evident in the interviews with officials and inhabitants was the urban/rural division whereas built environment could be more complex than that. Officials attributed rural features to agriculture and found its intra-urban practice inappropriate in the public space (see 3.1 Possible biases in data collection). Current growth vision of Diyarbakir aims to compel agriculture to outskirts especially in the form of *Agricultural Village* undermining intra-urban agricultural activities in small scale. *Ruralization of urban* explained by Vestbro is a phenomenon challenging this dichotomy since it could be hard to distinguish them recently (see 2.1.2 Urban growth in favor of urban

agriculture). On behalf of sustainable urban development more greenery is appearing in urban areas while infrastructural investment in countryside is increasing in some parts. Blurred borders between rural and urban can be exemplified with *edible landscape* (Smit et al., 2001) in which agriculture becomes an aesthetical element generating greenery and food production in urban space. Decreasing division between urban and rural could help diminish negative effects of urban life and urban-rural dependence. Therefore, including agriculture in urban areas could contribute to this way of development by turning urban/rural classifications upside down.

Moreover, Rakodi's livelihood framework realized as a tool to explore UA in Sur to understand inhabitants' relations to external environment. This view emphasizing urban poor's strengths instead of weaknesses also helped me to consider how people were benefitting the resources in the best way for turning them into livelihoods. Actually urban poverty, high unemployment rates and inadaptability of migrant population as skilled labor in urban economy are important challenges in Sur area (see 4.2.1 Economic decline and demographic changes). However in terms of sustainable urban development, what could be the use of considering that area as only consisting of undesirable elements in its re-development? Such a perspective in development would disregard the potentials and instead focus on the weaknesses of inhabitants in Sur. To avoid these problems, urban planners could be guided by the potentials by looking at livelihood framework and how assets in urban metabolism is utilized by urban poor. Such a perspective could be a guideline for urban planners to draw new conclusions about the area inhabited by socio-economically disadvantaged groups. It could be the basis for a less problem-oriented and a more potential-oriented urban development.

Besides, multidisciplinary approach by including different stakeholders is intrinsic to livelihood framework. Working on the potentials via livelihood framework can be conceived of a complex process since detailed perspectives of different stakeholders need to be grasped (see 2.4 Urban livelihood approach). UA crosscutting urban environment needs to be elaborated holistically which makes the inclusion of different stakeholders ranging from agricultural cooperation to inhabitants/farmers necessary. Actually, one shortcoming of this study is the lack of reflecting priorities and needs of urban poor generating income from UA through in-depth interviews. Instead I tried to grasp their situation through secondary resources and researches made on poverty, but it may weaken the stakeholder approach of livelihood framework.

Significantly, formal and informal contexts may differentiate at providing resources. Spatial asset is one of them, and important for adapting housing to local needs by urban poor as Correa depicts in his book-*The New Landscape: Urbanisation in the Third World*. I have paid extra attention to spatial resources since the re-development of Sur area has been transforming the informal use of space into a more formal one. Physical form is a remarkable solution for keeping the spatial hierarchy which may differ based on culture, climate and religion. To start with the use of space in Sur area, rooftops of informal settlements were determined informally by various activities shaped with climate and culture such as sleeping or preparing household goods as well as its very limited use for UA. Correa underlines how crucial the form and design may be in housing; therefore, he criticizes central low-cost housing administration for massive production of houses by piling up dwelling cells in high rise



Picture 59. Formal and informal contexts may differentiate at providing resources (Candan, 2012).

buildings (Correa, 1989). As depicted in previous chapter, centrally imposed development of TOKI failed to address UA as a local element in its mass housing area. Tightly packed, 4 or 5 story buildings built in the outskirts challenged the spatial resources in terms of design and proximity. While in Sur area, backyard gardening was an important way of using the garden, in new housing area it was challenged since UA was harder to implement in formally managed public space. Actually, not only in housing, but increased formality was also visible in the implementation of green belt around the City Walls. Spatial hierarchy of this public space was formally defined into a limited range of recreational activities ignoring UA as a possible recreational activity.

Another point I want to touch upon is the clash between UA and cultural heritage value

of City Walls which was another recurring theme in the interviews. Officials always depicted the superiority green belt for protecting City Walls instead of implementing UA around it. For example, UA was rejected to become part of green belt because of its probability to endanger the existence of City Walls as cultural heritage. Besides, although Hevsel Gardens were referred to as an area with major 'nostalgic' importance for Diyarbakir, it was not entitled to bear a cultural heritage value like City Walls. Although the greenery was not considered as part of cultural heritage, the cultural heritage value of bostans-vegetable gardens should be noted. As mentioned in context chapter, the traditional vegetable gardens - *bostans* - do have a long lasting history going back to centuries. This contradiction also gives an idea about to what extent agriculture was prioritized in Diyarbakir's development.

In accordance with the enabling strategy, for solving the housing issue professionals have important role in assisting and enabling urban poor through incremental development (Hamdi, 1991; Vestbro, 2008), which gives initiative to people by encouraging to use decentralized resources. Could the local community of Sur area be the real agent for improving its living conditions and especially of urban poor? Actually, Sur area developed incrementally and informally based on individual experiences instead of a top-down and centrally decided development. Local community can be accepted as one of the major agents there because it is the people who managed the resources individually, settled down in Sur area after the migration using their own means. While Sur area was home for most of the urban poor (4.2 Context: Diyarbakir and study area - Sur), some inhabitants moved out from there in time as their income increased which suits well with



Picture 60. Hevsel Gardens mostly referred as a core value for Diyarbakir was not emphasized as much as the City Walls in terms of cultural heritage (Candan, 2012).

Turner's diagram showing urban poor's priority. Despite of its problems, Sur area has been supporting and enabling Diyarbakir's urban poor through its physical, spatial, social and natural assets without much interference from the city government. Actually, the co-existence of a variety of these assets in Sue made it special and incomparable with the lately implemented provider model of TOKI's housing area, and it created a rapture with the agricultural practices which have been pursued in Sur for a long time. The standardized structure of the latter is full of potential to deprive the urban poor from exercising their livelihood framework possibilities. In that case, urban planners fail to complete their enabling role since the assets were not made available in the re-development of the study area.

As a final remark, what is the role of planners in enabling UA opportunities in Diyarbakir especially for urban poor? As depicted by Howe et al., "making cities pleasant, livable places, where resources and the necessities of life are accessible to all citizens, are issues of concern for urban planning professionals" (Howe et al, 2006). Diyarbakir's fast paced growth as a middle sized city seems to mostly investing on tourism and infrastructure. But for whom is the city developing? The lack of representation in Turkey seems to be a still existing problem in Diyarbakir in less degree. Lack of representation throughout city growth could generate serious problems in long term. UA which has been pursued in neighborhoods for long long time will disappear from urban scene if it is completely ignored in urban growth. However, after the city turns into a big metropol once it may be hard to rewind, and bring such productive spaces like UA back to the city. Therefore, the role of the planner is to consider daily productive activities in the bigger picture. This

perspective could also increase the agency of inhabitants in the local development.

Planning agenda impacting urban environment could encourage UA by increased support, access to resources and control of environmental threats posed by it. For instance, they can encourage better utilization of resource used by inhabitants for efficient use of rooftops by informal settlements, careful use of irrigation water and pesticides against hazardous food production and environmental degradation. Instead of implementing urban forms alienated from the local life, they could implement strict regulations and controls for better use of resources. Planning agenda could take influential decisions only after realizing their enabling role in UA as a livelihood method and start acting on it for urban development for everyone.

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Figures

Figure 1. Vestbro, 2008.

Figure 2. Vestbro, 2008

Figure 3. Correa, 1989.

Figure 4. DFID, 2000 cited in Gamper et al., 2002.

Figure 5. Dubbeling, 2010.

Figure 6 Source: Wikipedia.org

Figure 7. TOKI's logo (source: toki.gov.tr)

Figure 8. Logo of Diyarbakır Metropolitan Municipality (source: diyarbakir-bld.gov.tr)

Figure 9. Logo of Sur Municipality (source: sur.bel.tr).

Figure 10 & 11. (Source: Ben u Sen-Dossier, 2011)

Pictures

Cover picture (in the left-below).

<http://sur.bel.tr/turkce/?p=3023>

Picture 1. <http://www.aasarchitecture.com>

Picture 2. <http://sur.bel.tr/turkce/?p=3023>

Picture 3. Savaş Boyraz, 2009, Ben u Sen Project.

Picture 5. Urban World, 2010.

Picture 6. <http://www.kentyazihanesi.blogspot.se>

Picture 17. <http://www.wiki.tr>

Picture 51 & 52. <http://maps.google.com>

Picture 54 .

http://www.sundayszaman.com/sunday/newsDetail_getNewsById.action?newsId=233186

Picture 55. <http://www.mrcashop.org>

Maps

Map 3. Surici Protection Plan from Diyarbakir Metropolitan Municipality.