# **U**sing Urban Smart Growth Approaches in Planning Terms of Tehran Metropolis Green Belt

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**ABSTRACT:** Fast and unplanned city growth, has effects such as isolation of village societies, threatening urban cores and centers and small and weak societies, destruction of open spaces and open and natural regions. Smart growth offers a sustainable way for urban developing with appropriate use of available sources, increase of urban services, developing neighborhoods with different uses, making public transportation available and integrated designing in human scale. Green belts idea, at first was based on controlling the growth between cities, preventing from merging cities and separating specifications and details of city and village from each other. Although according to the fact that, there was not an agreement regarding the possible outcomes of green belts and controlling cities growth process among city experts, some with conservative ideas, believed that green belts are stopping barriers and negative factors in natural growth process of cities and some others, though that it is element of separating urban and non-urban habitats.

In first approved comprehensive plan of Tehran (2006), suburban ranges were recognized as protected range for future city developing. This definition has no more places according to the problems of Tehran. In this article based on the natural and environmental potentials of Tehran protected areas (Green belt) and many threats for its exposure to residential construction, there are offered strategies and protecting rules with smart growth approach and green belt definition.

Keywords: Urban Policy, Smart Growth, Greenbelt, Tehran Metropolitan, Urban-rural fringe, Green belt

# ثريو بشسكاه علوم النابي ومطالعات فرتبخي

#### **INTRODUCTION**

Among processes that had the protective and preventative approaches against uncontrolled urban growth and nowadays are protected by urban designers and planners is smart growth idea that in summary, deals with interactions of government agencies in local and regional level and people in city development matter and emphasis on protecting environment and village lands with public participation (Haueber, 1999).

Setting appropriate pattern of urban and suburb growth has been discussed for more than a century and urban theorists have presented different definitions for categorizing growth pattern. Among these, Kevin lynch introduced five growth patterns of metropolises: Sprawl city pattern, Galaxy city pattern, Compact city pattern, Star city pattern and Ring city pattern, for each of these patterns there are samples, theories and executive instructions. In addition, about development of future city there are ideas like radiant city(shining city) from Le Corbusier and Brodacre City from Frank Loyd Wright as two examples from broad spectrum of ideas about compacting and or expanding cities.

Nowadays, regarding concepts of sustainable development, compact city model and smart urban growth, although are new, have been accepted as acceptable pattern for future developments of cities, in most cities around the world (William et al., 2001). According to this subject, urban theorists often use strategies like green belts to reach sustainable form of city against uncontrolled growth of suburb spaces. Paying special attention to subjects like formation process, city growth and its effects especially on metropolises. Nowadays most modern urban designers and planners use topics for introducing suburb spaces like Patchwork-Structure and Disintegration and

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Fragmentation and building concentration hierarchical order from central points to suburban regions in details (Fishman, 1995). For example, Los Angeles metropolis is a sample of these cities that has concentration hierarchical order in central spots from one side and texture between city-suburb in suburb regions (Soja, 1999).

After industrialization of world, urbanization accelerated and got faster pace. Although this fast growth of cities and allaspect development caused increasing quality of human life and lots of advancements, it has got some problems within like creating uncontrolled suburbs and phenomenon named slum and slums inhabitants near mega cities(these days, these have caused lots of problems like intense erosion of environment, economic and social problems (Yang, 2003).

Therefore, more exact controlling and limiting uncontrolled growth of suburbs in parallel with conditions of each city base is necessary and essential. Meanwhile, common regions of city-village are one of the most crucial regions in designing and planning cities, because besides that, it is connection between big city centers and its suburbs. It has controlling role in the growth of cities and changing urban functions (Wang et al., 2002).

Therefore, designing quality, managing and developing, these sensitive transitional areas to reach sustainable development of city is a crucial and important matter. One of these strategies is creating green belts. From 1950 most of capital cities around the world like Otawa, London, Paris, Moscow, Tokyo, Seuol, Bangkok, and most states of America like Maryland and California, have created green belts around themselves.In all mentioned cities, with difference in structure and used patterns, main goals are too similar (Yokohari et al., 2000; Taylor et al., 1999). According to these universal experiences, appropriate function of green belt will be defines as the following:

Controlling growth of suburbs and optimizing townscape pattern (Yokohari et al., 2000);

Improving natural conditions and urban ecology like cleaning air and environment, controlling local micro-climates , protecting water sources, repairing destructing ecologies, and increasing variety of living in citie (Binford & Buchenau1993; Bolund&Hunhamer, 1999);

Creating recreational functions. (Little, 1990; La Cour, 1991); Providing training service (Little, 1990).

In other words, combining process of major and first area of city and village areas and less developed margins, is something evident and natural. Of course, it should be paid attention that there is some criticism for these opinions, including the fact that accepting nature of these theories at last will lead to confirmation of conquering more spaces of suburbs and encouraging creeping growth of city and city fragmentation.

Regarding the important role and place of suburbs areas in growth quality and also in forming future structure of city, studying role of suburbs environments in merging urban spaces, from one side, and separation of city and village, from the other side, is essential and necessary. Using green belts around cities for separation of major urban environment from suburbs is of a long history. Around 12 centuries ago in Europe, such strategies were used for separating cities and suburbs areas that mostly were pastures and agricultural land. With the emergence of city wall, gates, and forts, the gap between urban space and outer spaces got bigger. The dichotomy between urban and suburb environments has formed, as a deep and serious concept, cultural features present in many European cities, even after hundreds of years of destruction of their city walls and gates..

Now adays, logical and programmed design of generality of city among beautiful and healthy environment that has different and desired environmental features so that residents of city can easily use it for fun and recreation, is a part of major approaches in designing and planning cities. Among these, green belt idea that will be discussed in this paper is one of these approaches. Because with potentials that, these kinds of designs have for creating suitable ground for public fun and recreation, they can play an important role to improve physical and mental health condition of citizen.

Creating green belts among spaces within cities and villages has been an acceptable approach since destruction of European city walls in the 18th and 19th centuries. In this era, to create green fun pass-ways and reinforce recreational activities in the spaces created from destruction of walls and towers around city, new trees were planted and green spaces were constructed. In the late 19s, Ebenezer Howard, proposing city-garden model, introduced an approach of development of cities with circular growth and developing industrial areas (Howard, 1946).

Based on his idea, city-gardens, with controlled growth, should have been surrounded by areas with functions like fun, recreation and agricultural and later animal husbandry, called green belt.

Significant studies have been done about the important use of these approaches, proving that, those urban projects had been more successful that been designed and performed by ecological and natural elements.

This theory has been proposed in studies of J.Taylor in a paper entitled 'from greenbelts to greenways', introducing 4 cities Calgary(Alberta), Ottawa and Toronto, (Ontario), and Sakton (Saskatchewan), as samples of cities where greenways are built by combining natural elements. Thestudies show that spaces around these cities have been saved from invasion of artificial and created spaces and have experienced less pressure caused by the sprawl of city. Nowadays strategies related to improving quality of open and green spaces, are one of the important tools for protecting open and green spaces of cities(Taylor et al., 1995).

Northeast range of Tehran is located in 7880 hectares from north bounded by Jajrood Riverand Latian dam from north, and by Shahid Babaei highway and Damavand road from south, Jajrood River from east and Lashkarak road from west. The mentioned range has potentiality to be protected by its natural value, standing on foot of mountain of Alborz and passing roads that connect Tehran to northeast country with good condition of weather, east and north of Tehran and north provinces, for saving and improving quality of environment with touristoriented and sport activities in urban scale.

Presence of this outstanding capacity in this part of Tehran's range, because of the mentioned environmental desired conditions, has caused the territory to undergo different changes like owning widespread lands, separation divestiture for developing residential function without passing law levels and compliance with relevant regulations. This indicates need of environment protection in the area.

These factors along with structural and natural differences in this part of Tehran's suburbs from other parts, with Tehran's serious shortcomings emphasize preparing green spaces and open spaces and services, protecting environment, integrated managing, guiding and controlling changes. This area has potential and unique capacity, use of which needs special attention, because with the present trend, the mentioned lands will face serious threat of turning in uncontrolled cities with residential function and divestiture more and more by government agencies and individuals. Therefore, protection, development and organization of northeast lands have been regarded as a tool for decreasing threats and using opportunity, which, especially according to lack of urban and suburban service can lead to sustainable development in Tehran metropolis.

#### MATERIALS AND METHODS

Generally, in studying issues related to suburban areas, 3 topics: urban-rural fringes, in modern urbanization literature of America: urban green belts, in Europe and Australia at last urban sprawling, as indicator of combining two words: fringe and greenbelts, have been used more. Therefore, in the brief study of theoretical approaches about identifying and analyzing these subjects, we will introduce green belt, urban-rural fringe, urban sprawling, and at last smart urban growth.

#### **Green Belts**

Urban areas are parts of the national and cultural legacy of a country that not only in terms of aesthetic, are a continuation of collective memories, but also due to being the residence of millions of people, are valuable (Sharifzadegan et al., 2014, 46). Greenbelts is one type of programming policy for restricting urban growth, preventing from physical growth of big cities, and also preventing from merging cities and towns nearby while protecting unique specifications that will be used for different uses. Greenbelts policy was first proposed in Europe in a limited range. During war, growth and development of transportation caused growth of city beyond urban boundary. London government response to this was setting and defining greenbelts with 30km width around city. With the passage of law of urban and rural planning in 1947, all capital cities had to set greenbelts around themselves. The effect of this policy was the small changes in functionality of rural lands to urban

#### in England.

Major feature of greenbelts is durability of its boundaries. Although it is hard to reach limits of green belts, it will be much harder to modify and change after there is agreement over it.

The greenbelt having been determined, its developing and changing is not possible unless in some exceptions like renewing monuments within or improving local facilities like open and playing spaces (Caves, 2005).

#### **Urban-Rural Fringe**

In 2002, the rural areas planning agencies of England defined rural-urban fringe as the following: rural-urban fringe is a transitional zone that is made from the urban artificial edges and will surround rural areas eventually distancing from urban space. In the zone that continues to suburbs, the clear mixture of effects of urban – rural functions is observed. Although this definition is useful in defining area because of simplicity, it is somehow incomplete, because this definition will not speak of all details and specifications of these areas.

In other words, this point is worth mentioning that urban fringe is not the only transitional expanded area from urban to rural that has functions from village and city in the same time. For example, some urban functions like utility functions that are mostly concentrated near the cities, are not accepted as center tissue of city, while placed in city fringe and has urban function (like drinking water supply areas and urban waste discharge areas.). It should not be thought that as there is always such a tendency for separating these areas and different functions of center tissue and urban residential areas in decision-making process and managing city, it is fringes, which are the only areas suitable for placing urban utility functions and/ or for affordable lands, which have accessibility to major roads channels. For example, functions like different kinds of private and public parks, sport spaces, factories and industrial institution, educational institutions, distribution warehouses are seen in rural fringes (Gallent et al., 2006).

Other spaces like urban railway, roads and airports are also kinds of spaces that are suitable for these areas. On the other hand, whereas urban fringes include sets of urban functions that gradually will decrease in variety and concentration, it is logical to name it transitional space.

So, as the mentioned functions are not special for urban areas and mostly found in rural fringes, maybe it would be better that these functions are exclusively called fringe functions. In fact, desire to vast spaces with low cost, cause some formerly urban function to change to fringe areas. For example, excess of educational uses and/ or local hospitals, which now have great opportunity out of city for development by selling their lands in urban zone (Gallent et al., 2006).

Based on definitions made, urban fringe is a semi urban space that continuously affected and connected with different urban functions. In addition, there are other specifications and functions for fringe: fringe is a semi -rural space and mostly has been placed in villages than in nearby city.

According to the intense and powerful effect of urban functions and applications on fringe functions forming can result that the city causes more rural spaces change to fringe spaces.

In this regard, the professor at Florida University, Ivonne Audirac, and author of famous books as 'rural sustainable development' in America, distinguished two suffixes 'ruralurban and urban-rural' to define fringes. He believed that the word 'rural-urban' points to overcoming the rural effects and changes in forming fringe whereas for the word 'urban-rural', the development of city structure and special functions are involved in formation of fringe (Audirac, 1999).

According to mentioned subjects, fringe area should be defined without paying attention to prevalence of rural or urban state. Because, as it is shown, it is specifically difficult to determine which factors cause prevalence of urban or rural state in most cases because of mixture of functions of both sides and with a mutual approach spaces that had rural and agricultural functions are now mixed with some urban functions and the result of this is urban fringe areas. Therefore, it can be said that fringe is neither rural area rural nature of which has been destroyed nor a space with urban atmosphere that is different in construction concentration from urban texture, but mostly there is a mixture of these two in areas (Gallent et al., 2006).

Specifically, these spaces have high potential for performing the growth decreasing policy and limiting marginalized constructions (like greenbelts policy) but according to cheap and extent of these areas; they have many constructions implemented. The new issue that has been pointed to in some articles is dividing urban-rural areas in two inner and outer parts. For example, suburb lands will be divided in urban edge, inner fringe, outer fringe, each of which has details and different functions (CURE, 2002). Bunker and Holloway believe that fringes have an inner edge and an outer environment within them (Bunker & Holloway, 2001). In addition, according to connection to the nature and adherence of fringes, these definitions signify more to structure and transit pattern mentioned earlier. Fig. 1 shows the position of different areas among city and suburb environment.

According to this view, the inner edge of fringes include sets and elements connected to urban environment and more concentration and the outer edge of fringe include includes mostly agricultural function and less concentration regarding inner edge of fringe.

#### **Urban Sprawl**

Discharging of cities to suburbs is called sprawl. Exact and unified definition of sprawl is difficult because different researchers have presented lots of ideas and opinions about this.

Having summarized these opinions in 3 levels of definition, dimensions, specifications and factors, we confront these subjects:

Definition: A special kind of margin growth in suburbs and referred to unlimited development and self- growth out of major core in metropolises areas resulting in loss of agricultural lands use and low- concentration development (Burchell, 1998).

Dimension: Galster and his co-workers specify dimensions of this event and define 8 specifications including density, continuity, ramification, close connections between major areas and suburbs, mixture of functions ,proximity, compact centrality of city (Galster et al., 2001).



Fig. 1:Position of different areas among city and suburb environment (Source:deechan-geografi,2015)



Fig. 2:Conceptual pattern of relation of development of roads and development of suburbs areas and sprawl. (Source:gwrcftp, 2015)

Factors: Wolman believes that in sprawl process, constructing big transportation corridors between metropolises and capital cities is the most important growth and development factor (Wolman et al, 2002).Fig. 2.Shows the role of transport corridors.

Until now, this phenomenon has been studied from different points, sometimes in analyzing and assessing their growth process,(Lopez & Hynes, 2003) or sometimes for effective factors for controlling it(Anthony, 2004). On the other hand, researchers and investigators mostly know, sprawl, as a negative factor for natural environment. For example, in America researchers mostly equalize sprawl to increase of using sources and energy, (Ewing, 1997), lowering society health, (Frumkin, 2002) and factor of divulge of social damages (Morris, 2002). Also regarding the record of this event, while sprawl is considered as a specification of modern American cities, some theorists like Bruegamann search don the bases of these phenomena in the second half of the 18th century in Paris, when rich people started to migrate and evacuate concentrated and crowded centers and stayed in outer lands and areas (Bruegmann, 2005).

About the results of this discharge from city center, some researchers like Bruegmann, Gordon, Richardson and Peiser, believed that there are black exaggerations about bad effects of this trend in metropolises (Bruegmann, 2005; Gordon & Richardson, 1997; Peiser, 1989). Atlast, most urban researchers and urban planners know sprawl as cause of most problems of capital cities and look for solutions for improving this situation. Most know the serious start of sprawl in parallel with fast development of metropolises in America, and believe that because of existence of developmental government policies in America, fast growth of population, increase in economic productivity, and industrial production, there appeared a phenomenon named sprawl of city in this country. Whereas Jacobs mentioned this issue in her book 'death and life of good American cities' about 50 years ago, and defined it this way: nowadays, sprawl is happening and developing across America, from west to east and between these two (Jacbos, 1961).

With lots of problems that uncontrolled growth of sprawl have made in metropolises, researches also have been offered solutions like changing basis for improving quality of life in this area. Among these, some governments had offered some designs for improving life conditions in these areas. For example, Beijing provided areas for linear development of city to decrease dependence on urban center core and possibilities to improve suburbs environment quality and quality condition parts of these areas like bringing services and improving urban foundations. Finally, researches showed that this linear development programs and escaping from center on the contemporary caused increasing sprawl and reinforcing margins (Deng & Huang,2003).

#### **Urban Smart Growth**

In 1970, urban planners started to promote compact city ideas. After that, Peter Carthorse's idea, named city- village, that was based on public transportation, pedestrian-oriented urban spaces, and emphasis on reduced use of cars faced public acceptance. Land provision, high cost to construct building and widening high ways (especially necessity of destructing lands with historical value and of protecting them for restoration) problems made some organizations make other ideas to direct transportation projects to public transportation use. In addition, at that time some organizations like environment protection organization of America introduced smart growth as a way to reduce air pollution.

Generally, smart urban growth is a growth that has following features:

It manages and limits scattered and out- of- control suburb development

It encourages land uses with high density in central areas of urban range

It emphasizes mixing uses in all levels

It emphasizes reduction of personal and individual journey It pays attention to rebuilding and restoring old regions and traditional patterns

It protects inner open and green spaces within suburbs.

In fact, smart growth is a reaction against urban sprawl. Urban sprawl has been criticized because of increasing costs of housing, high traffic volume, creation of unnecessary infrastructure costs, whereas goal of smart growth is to equalize personal needs with occupations and economic development (Peiser, 2001).

Smart growth is a common term for making integrated transportation system and lands uses that support compact development and mixed uses of urban regions against of car-oriented and scattered development in city margins. Smart growth creates accessible land use patterns, improving transportation system, viable communities and reduction of public service costs. Major differences in two-user land patterns are compared in Table1 .The following goals for smart growth can be mentioned. (Ghorbani & Noshad, 2008) Creating viable communities; communities that consider human and not cars as their axis. In neighbourhood scale, viable communities include stores, restaurants, and offices that have little distance from residential regions and can be reached on foot or by bicycle for residents.

Closeness to nature and sustainable protections from valuable lands; closeness to natural and green lands is crucial for most people, an issue that does not have contradiction with compact development. Greenways through rivers help people access them while agricultural lands, wild life, and open valuable spaces will be protected in a stable way.

Regenerating and revival of suburbs, city centres and old commercial regions.

Public pass-ways; public pass-ways in urban areas and suburbs in metropolis scale are essential to support compact development. Creating specific urban growth boundary; by making specific boundary around city, we will set limits for city growth in 20-30 years.

#### **Smart Growth Principles**

Smart growth strategy will lie on these principles, which

Index	Urban Sprawl	Smart Growth
Density	Low density, scattered activities and constructions in urban and suburbs areas	Central compact development
Growth pattern	Developments in suburbs areas	Development within the context
Mixing uses	homogeneous, similar, and single- function land use	Mixing land use
Scale	Big scale, buildings, big blocks, wide paths	Human scale, buildings, blocks, small paths
Public services (stores, schools and parks)	Regional, solid, bigger, needing cars accessibility	Local, smaller, compatible with pedestrian accessibility
Transportation	Transportation based on cars and land use patterns without paying attention to pedestrian-oriented standard spaces	Providing different transportation ways and land use patterns that lie on using bicycle and pedestrian-orientation
Accessibility and connections	Hierarchical road network with lots of rings and vast streets and unconnected sidewalks, existence of obstacles on non-motoring trips	Sidewalks and paths suitable and connected to each other which makes it possible to have journeys cars or elseby
Public spaces	Emphasis on private areas ( malls, closed spaces)	Emphasis on public areas (sidewalks environment, parks and public services)
Programming process	Not programmed	programmed

 

 Table 1: Difference between smart growth strategy and sprawl in development of city (Source: Victoria Transport Policy Institute, 2005)

 different communities can adapt with according to their special geographical and economic-social conditions with some of these principles. These principles are; (Ghorbani & Noshad, 2008)

Mixing uses;

Spreading compact and concentrated central context;

Inner and outer urban pedestrian-oriented areas;

Creating distinguished and attractive communities with intense emphasis on place concept;

Protection of open spaces, agricultural lands, vulnerable environmental elements;

Empowering and reviving abandoned lands in proportion with smart growth pattern;

Creating selection opportunities of transportation system of inner and outer areas of city;

Encouraging citizens to participate sustainably in decisions related to development.

#### **Regional Strategies of Smart Growth**

Strategies of smart growth based on areas of study (city, village, or suburbs regional) are different. These differences are;

A: City; in the city region, emphasis is on redevelopment and in context of existing neighborhoods, increasing mixing uses and increasing variety of transportation systems, specially walking and public transportation.

B: Suburbs; in suburbs centers with variety of accessibility features with medium traffic and mixing uses are created by developing existing communities in suburbs areas and or with programmed development based on smart growth principles. This way encourages independent suburbs and concentrated central areas with open and green suburb areas with fun features.

C: Village; rural in smart growth includes principles that help develop and public services to transform villages to regions with accessible and mixing uses.

About performed samples using urban smart growth pattern, we can mention many cities especially in America. Starting and developing idea of smart cities was initiated in urban projects from Maryland in 1997 and was an introduction for next projects with smart growth concepts in America and most of cities like Wichita, Chicago, and most of cities of Massachusetts State selected this policy as a prime policy in metropolis level.

## **RESULTS AND DISCUSSION**

Until now, in urbanization experience of Iran, two definitions have been around for suburbs range have been protected, that are; 1) saving development of city future (25-year development domain) and 2) municipalities service ranges.

In fact, 99 of municipality law of Iran, (issued in 1949) "Green belt" around cities was define as : a realm that is bigger and surrounds the lawful limits of city so that the area created can solve future needs of population based on general per capita of all urban uses.

Described range in performing Act 99 of law of municipality should be set in a way that range and side for cities future development determined. Municipalities should take following actions:

Setting Green belt range and preparing comprehensive map according to possible development of city.

Preparing provisions for all development actions such as fragmentation, land separation, making buildings, gardens, streets pavement, making factory and workshop, and provisions related to keeping health special to city Green belt according to



Fig.3:Green belt range of Tehran in 2008 (source:Tehran, 2015)

civility of city map.

Green belt ranges, based on this law, would have radius for which each civil activity or construction activities put effects on city directly. In the law, city Green belt in regional scale should be set and specified in a way that it does not interactions with other cities and in its maximum growth, is coincident with urban areas, and for five years, it will not need revision and changing.

As it can be understood from the passage date of this law, this law has faced new metropolis problems, and it is not compatible with urban sets. For this reason, in 2006, the law was revised with 'Green belt definition and city, village and town range'. This law as a new law in defining range and city Green belts has new strategy for city Green belts.

Based on this strategy, for the first time, lands of city Green belts are no longer for the 25-year development, and from now on, parts of the lands that are suitable for agricultural should be protected.

In this law, Green belt is defined; city Green belt is part of immediate lands of suburbs, including lands protected from uncontrolled and illegal construction for long term and programmed city development and lands, constructed or rural regions have any kind of dependency to city so that setting physical, economical, and social relations among them and city is necessary.

The most crucial point is that in this later law, Green belt is still known as a range for future development of city. With smart urban growth strategy in this study, two important principles are mentioned in guiding future changing of lands range in suburbs. First, the rangeland should be protected, and second, organizing and developing of green and open spaces(green belts) should be paid attention to.

Based on the last comprehensive plan of Tehran, (passed in 2008) a range with area of 6 thousand square kilometer was set as the Green belt of Tehran based on definitions and current law of country (Fig.3). This range has 24 cities and 340 villages.

Investigations show that most of Tehran Green beltrange lands have grade 1 and 2 agricultural lands, gardens, ranches, and forestlands. According to intense lack of green and open public spaces, fun-tourist centers of Tehran, the existence of rich and potential opportunity, this emphasizes to change mentioned lands to fun-tourist areas that are the need of Tehran residents and Tehran province.

According to discussed topics about nature of fringes, urban sprawl, smart urban growth, and according to problems and threats in suburbs of Tehran metropolis, it can be said that existing strategies in Green belt of this city must be changed in different programming dimensions like physical, natural, social, economic, and political areas. Based on it, there are two general strategies, protection of existing sources and quality, and improving natural and artificial environmental quality areas of suburbs. Principles and strategies according to these two axes include base and foundation of Tehran Green belt range programming.

Regarding smart urban growth principles, accessing two goals of protection based on abiding sustainable ecology principles and protection based on abiding stable ecologic principle in suburb Green belt range of Tehran metropolis is essential. By taking these goals, defining Tehran metropolis suburb range changes from Green belt to Green Belts, and based on known definition of green belt, we should take suitable policies and strategies for this range.

### CONCLUSION

Tehran is known as a metropolis in southeast of Asia. Capital of Iran, that has been turned into a population-attracting pole, forming around itself lots of population centers. Protection against spread of uncontrolled construction and development of cities and satellite towns (that followed by connection of residential regions and populations are unable to equalize urban growth to natural environmental values) are principles that should be considered around metropolises.

In these areas of metropolises, there are scattered habitats and many population regions that have taken their nature from mother town, and are disjoint parts of its residence and activity. Daily, business trips between these regions and mother town will be made, and this population like residents of mother town uses urban services and features.

If this population residing at suburbs of mother town cannot be controlled and population change and space-physical movements are unplanned, mother town will face heavy management and functionality challenges.

Emphasizing that, the existing strategies need to be reconsidered in range of suburbs of Tehran metropolis. This redefinition is considered nature protection, revival of agricultural activities and gardening principles and forecasting habitats and fun palaces and fun and sport spaces in rural areas around Tehran for public use.

Another subject should be considered regarding sustainability and integration of residence structure, activity, free time and making variety of public spaces in the areas is equalizing and providing citizenship rights, public welfare for all and realization of resistant city against damages and accidents to reach green and beautiful, vital and energetic life space for all in and around Tehran residents.

Accordingly, in range study of the article, it is offered that the space around city is known as green belts defined in world, and protection of its nature is principled and preventing to change using natural lands into other users land becomes necessary unless for other users, not in conflict with goal of protecting nature making the uses reinforced.

#### REFRENCES

Anthony, J. (2004). Do state growth management regulations reduce sprawl?.Urban Affairs Review, 39 (3), 376-397.

Audirac, I., Furuseth, O. J., & Lapping, M. B. (1999).

Unsettled views about the fringe: rural-urban or urban-rural frontiers?.Contested countryside: the rural urban fringe in North America., 7-32.

Binford, M. W., & Buchenau, M. J. (1993). Riparian greenways and water resources. Ecology of greenways, 69-104.

Bolund, P. & Hunhammar S., (1999). Ecosystem Services in Urban Areas, Ecological Economics, 29, 293–301.

Bruegmann, R., (2005). Sprawl: a compact history, Chicago: University of Chicago Press.

Bunker, R., & Holloway, D. (2001). Fringe city and contested countryside: population trends and policy developments around Sydney. Sydney: University of Western Sydney.

Burchell, R. W., Shad, N. A., Listokin, D., Phillips, H., Downs, A., Seskin, S., ...& Gall, M. (1998). The Costs of Sprawl—Revisited. Report 39. Transit Cooperative Research Program. Transportation Research Board, National Research Council. National Academy Press, Washington, DC.

Caves, R.(2005).Encyclopedia of the City, Routledge.

CURE (Centre for Urban and Regional Ecology) (2002). Sustainable Development in the Countryside around Towns, Countryside Agency Working Papers CAX 111 & 112. (Vol.1 & 2), Cheltenham: Countryside Agency.

Deechan- geografi, (2013, Desember 17). Rural Urban Fringe. Retrieved February 18, 2015. From http://deechangeografi.blogspot.com/.

Deng, F. F., & Huang, Y. (2004). Uneven land reform and urban sprawl in China: the case of Beijing. Progress in Planning, 61(3), 211-236.

Elson, M., (1993). The effectiveness of Green Belts. London: HMSO.

Ewing, R., (1997). Is Los Angeles-Style Sprawl Desirable?, Journal of the American Planning Association, 6(1), 107-125.

Fishman, R. (1990). America's new city. The Wilson Quarterly,14(1), 24-55.

Frumkin, H. (2002). Urban sprawl and public health. Public health reports, 117(3), 201.

Gallent, N., Anderson, J., & Bianconi, M., (2006). Planning on the Edge: The context for planning at the ruralurban fringe, New York, USA: Routledge.

Galster, G., Hanson, R., Ratcliffe, M. R., Wolman, H., Coleman, S., & Freihage, J. (2001). Wrestling sprawl to the ground: defining and measuring an elusive concept. Housing policy debate, 12(4), 681-717.

Ghorbani, R., & Noshad, S., (2008). Smart Growth Strategy in Urban Development, Principles and Approaches, Geography and Development Iranian Journal, 6 (12), 163-180.

Girling, C. L., & Helphand, K. I. (1997). Retrofitting suburbia. Open space in Bellevue, Washington, USA. Landscape and Urban Planning, 36(4), 301-313.

Gordon, P., & Richardson, H. W., (1997). Are Compact

Cities a Desirable Planning Goal?, Journal of the American Planning Association. (63), 95 -107.

Gwrcftp, (2000,October). Patterns of Suburban Growth a graphic presentation of suburban development in Virginia: Past patterns and future options. Retrieved April 20, 2015, From http://www.gwrcftp.org/Regional\_Planning/Planning\_ Reference\_Docs/Patterns\_of\_Suburban\_Growth.pdf/

Haeuber, R. (1999). Sprawl tales: Maryland's Smart Growth Initiative and the evolution of growth management. Urban Ecosystems, 3(2), 131-147.

Hallman, H. W. (1977). Small & Large Together: Governing the Metropolis (Vol. 56). SAGE Publications, Incorporated.

Howard, E., (1946). Garden Cities of Tomorrow. London: Faber & Faber.

Jacbos, J. (1961). The death and life of great American cities, New York: Random House.

LaCour, N P. (1991). Blackstone River Valley National Heritage Corridor: Planning Framework, Techniques, and Technology for Today and the Future. Proceedings from Selected Educational Sessions of the 1991 ASLA Annual Meeting, (pp, 38-74). Washington: American Society of Landscape Architects.

Little, C. E. (1990). Greenways for America. Baltimore: Johns Hopkins University Press.

Lopez, R., & Hynes, H. P. (2003). Sprawl in the 1990s: Measurement, distribution, and trends. Urban Affairs Review, 38 (3), 325-355.

Lynch, K. (1961). The pattern of the metropolis. Daedalus, 90(1), 79-98.

Tehran, (2008). Master Plan of Tehran. Retrieved April 20,2015. From http://www.tehran.ir/Default.aspx?tabid= 209

Morris, D. E. (2013). It's a Sprawl World After All: The human cost of unplanned growth--and visions of a better future. British Columbia and Canada: New Society Publishers.

Peiser, R. (2001). Decomposing Urban Sprawl. Town Planning Review, 72(3), 275-298.

Peiser, R. B. (1989). Density and Urban Sprawl. Land Economics, 65 (3), 193-204.

Sharifzadegan, M. H., Fathi, H., & Zamanian, R. (2014). Using Strategic Choice Approach in Urban Regeneration Planning (Case Study: Dolatkhah Area in Tehran, Iran),International Journal of Architecture and Urban Development, 4(2), 45-52.

Soja, E.W. (1995). Postmodern urbanization. The six restructurings of Los Angeles, In: Watson, S., Gibson, K. (Eds.), Postmodern Cities and Spaces. Oxford: Blackwell, 125–137.

Taylor, J., Paine C., &FitzGibbon, J. (1995). From greenbelt to greenways: four Canadian case studies. Landscape and Urban Planning, 33(1),47 - 64.

Wang, J. A., He, C. Y., Dong, Y. C., Gao, L., & Xu, W. (2002). Analysis of land use/cover driving forces in the urban fringe of Beijing City. Adv Earth Sci, 17(2), 201-209.

Williams, K., Burton, E., & Jenks, M. (2001). Achieving Sustainable Urban Form. London and New York: E & FN Spon.

Wolman, H., Galster, G., Hanson, R., Ratcliffe, M., Furdell, K., &Sarzynski, A. (2005). The fundamental challenge in measuring sprawl: which land should be considered?. The Professional Geographer, 57(1), 94-105.

Yang, S. H. (2003). Urban Ecology. Beijing: Science

Press.

Yokohari, M., & Amati, M. (2006). Temporal changes and local variations in the functions of London's green belt. Landscape and Urban Planning, 75,125-142.

Yokohari, M., Takeuchi, K., Watanabe, T.,& Yokota, S. (2000). Beyond greenbelts and zoning: a new planning concept for the environment of Asian mega-cities. Landscape and Urban Planning, 47, 159-171.

