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## **Transition in Green Space Governance for Urban Sustainability: Study on Urban District Parks in Seoul**

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**Abstract:** Green spaces and parks are the important component in the city to improve the urban environment and citizen's quality of life. In the past, urban parks only contribute to environmental conservation with a political context. And they were usually planned for, funded and maintained by local governments. Increasingly, however, urban parks are gradually changed their meaning, identity, functions and governance to consider urban sustainability goals. Thus, this article discusses from a transition perspective 'how the social-ecological system of urban district parks in Seoul Metropolitan Area has transformed in the past decade.' It examines innovations are emerged in local green space provision, especially in political way, and how these niches have triggered shifts in green space governance in Seoul Metropolitan Area. To analyze these questions, this paper defined new domains for the change of governance by examine interaction in different social needs and objectives, improved health and physical recreation, food provision and community building. It also recognizes the landscape shift in urban ecosystem, infrastructures, regulations, acts, citizen awareness of climate change, quality of life and also citizen participation. From this research, we will identify the key drivers and barriers of the transition in green space provision, and suggest how city can achieve the urban sustainability.

**Keywords:** Transition; Urban district park; Governance; Sustainability; Innovation

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### **1. Introduction**

Passing great growth of economy in Korea, many kinds of buildings, road and apartment were increased and the value of real estate was getting higher than any other century. Within this social

atmosphere, government set up the regulation to manage and prevent from the development without environmental consideration through the Zoning, and the one of those components was Green space. The purpose of green space was prevents improper urban development and protect environment from the urban, so, in the past, green space was different as nowadays because people much concentrated on urban development and rapid economic growth. But as time goes by, distract their mind from development to environment and sustainability for an image of the future and their future generations.

Today, we faced on environmental problem such as water supply, climate change, extinction of species, etc. and according to these problems we got fundamental sustainability challenges in urban area. In this situation, the role of urban area is getting important to solve diverse sustainable problems and especially the role of urban district parks, the closet urban green space to every citizen, was magnified.

Nowadays, easy to find many changes in urban space and within there, the district park has magnificent changes, for example, the meaning of district park to citizen, the role of district park and application of district park as compared with the last two decades. Urban district park was usually just existed for the green space provision, peoples not aware of this and had low accessibility, but today, the district park was vitalized through citizen, resident and also the local government. Many citizens using the district park as a living space, that is the reason why the park provide for many activities such as ecological education program, urban agriculture, ecological park, exercise area, etc.

But these changes are not only from environmental perspective to protect nature and prevent climate change using the urban green space, but also, from many diverse social background such as educational, economic, political reasons and the change of social identity. Thus, we want to discuss how the social-ecological system of urban district parks in Seoul Metropolitan Area has fundamentally changed in the past decade. So, we will address our research to defined the current status as a transition perspective and suggest how cities should consider their planning for urban sustainability through the analysis of system change and the case study.

To examine this, we set up the research questions; what and how innovations in local green space provision have emerged, how these have triggered shifts in the relation between local government, civil society organization, private business and citizens, what were the successful or failed experimental cases and how did they work within the system, what are the key drivers and barriers of the change, what we can briefly suggest for the desirable future from the findings regarding district parks?

To achieve our research we will approach by socio-technical transition perspective using the multi-level perspective (MLP) [1] to find some components which had influence on the change of district park and main stream of change. Furthermore, we try to set research scope for the accuracy of research, therefore, we set up Seoul Metropolitan Area as the spatial scope and analyze from the first civilian government (1992) to today. The time scope is, according to Korea administration, decided from 1992 to today. Due to these research approach and bounds, research will progressed; First, describe the system with MLP to know about the relationship; Who were related in the past and how change the relationship between them, Why the system changed and What was the problems; Second, identify and interpret changes over time by using the MLP to know about how they actually come together and how can we see some changes as a regime and conclude about implications for policy and planning. And we assume that it will help to seek appropriate approach to achieve the sustainable governance for green space.

## 2. Knowledge and framework

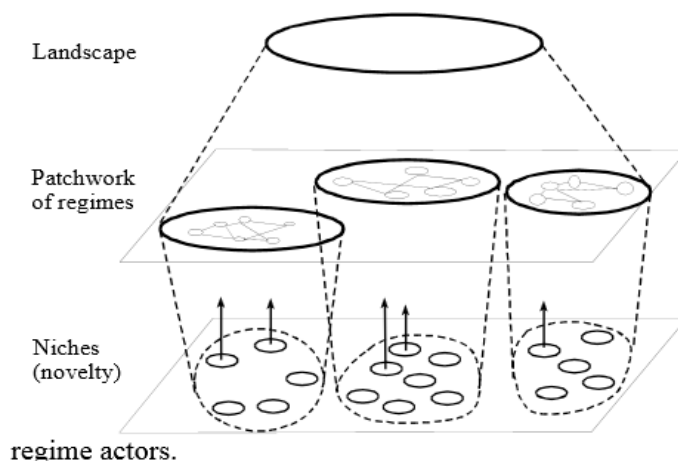
### 2.1. Applying Multi-level perspective on Urban Green space

Socio-technical transition is a set of processes that lead to a fundamental shift in socio-technical system[2]. Research developed innovation research and as time goes by, they has been discuss about system transition within the frame of socio-technical system which is highlight on demand, user and society. By this research attitude, many researches were started from societal challenges such as recycling of resource, climate change, reducing energy consumption, etc. So, socio-technical transition understand the society and technology cannot divided, in other word, society and technology is consist of socio-technical system which is supplement and matching each other.

In this effective perspective, suggest system innovation to solve the current system problem and achieve their vision of sustainability. Sustainability requires views of human needs and well-being that incorporate non-economic variables as education and health enjoyed for their own sake, clean air and water, and the protection of natural beauty[3]. We may reasonable conclude that system transition and sustainability has strong relationship and they are suing socio-technical transition to solve societal challenge through system innovation and finally try to achieve sustainability.

The MLP helps explain why there may simultaneously be a flurry of change activities (at the niche level) and relative stability of existing regimes [4] and MLP has three analytical level which are Niches, Regime and Landscape.

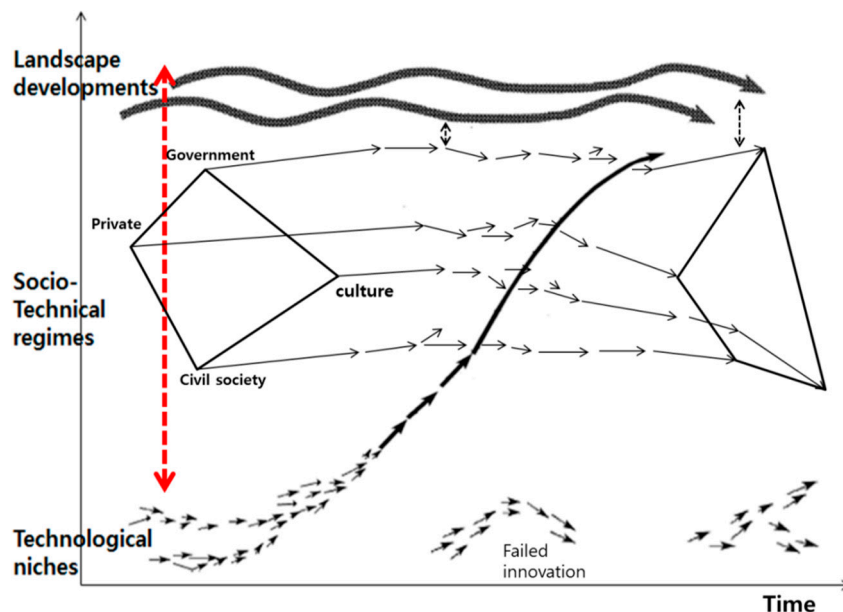
**Figure 1.** Multi-level perspective on innovation [1].



Regimes usually influence on both landscape and many effective niches and it consist of formality, normative, recognition rule, physical and technological element. So Geels and Shcot said the regimes are seen as socio-technical in that technologies and technological functions co-evolve with social functions and social interest where technological development is seen to be shaped and potentially shaped by a broad constituency of not only technologists and engineers but also policymakers, business interests, NGOs, consumers and so on where the interrelationships of these interests through regulations, policy priorities, consumption patterns, investment decisions, amongst other things, hold together to stabilize socio-technical regimes and their existing trajectories [5].

And the last component of MLP perspective is Landscape which is natural and physical structure including heterogeneous variable such as climate change, global environment concerned, citizen awareness, etc. The landscape operates at the macro-level, focuses on issues such as political cultures, economic growth, macro-economic trends, land use, utility infrastructures and so on [1].

**Figure 2.** Transition structure on MLP perspective.



This research uses the MLP to see the change of urban district park in Seoul and it will help to examine a key drivers and barriers for a transition towards urban green space system. Over the many years, the purpose of green space and cognition had various changes and during this period, emerged diverse niches. Niches are the kinds of experiment by one or many dimensions like government, citizens, NGOs, private businesses. Thus, it judge when and how are they make a change flow and when they accelerated for what effect through understanding about what niches made current urban district park in Seoul. It will be discussed with certain niches in other section.

The change of green space governance faces a number of landscape pressures such as climate change adaptation, economic growth, sustainability and so on. So, according to the system analysis, related with district park, will know about which landscape pressures make innovation and stabilize it.

The regimes, influenced by landscape and accelerated niches, are an institutional, practical and social system. If analyze regimes, it could be Figure out the current status of transition and also could come up with key drivers and barriers.

Using this approach with MLP make possible to understand the key drivers and barriers, finally, cognize the limitation and suggest the challenges to overcome the barriers.

## 2.2 Significance of District park in Seoul

In 1934, the term ‘Park’ and ‘Urban park’ was appeared ‘Act on Park’ in 1967 after that, the Act on Park was revised ‘Natural Park Act’ and ‘Urban Park Act’ in 1980. Than it was also revised ‘Act on urban park, greenbelts, etc. in 2005.

In the ‘Urban Park Act’ defined the term ‘Urban Park’ is the area for preserve the natural scenery and contribute to improvement of citizens’ health, recreation within urban planning district [6] and now we still use the Act on urban park, greenbelts, etc.

But, it has some change between the past and now, so, in 1980, Act’s defined ‘Urban park’ as the park, determined by urban management planning pursuant to provision, in order to protect urban natural scenery and improve the health, recreation and peaceful life of citizens in urban area[7]. Compare with 1980 and 2005, it doesn’t have a big changes for the definition of Urban park.

Now we using the term of “Urban park” is any of the following parks which are built or designated to contribute to protecting urban natural scenery and improving health, recreation and aesthetic sentiments of citizens in urban area and defined ‘District park that are built in order to improve the health, recreation, and peaceful lives of neighborhood’ [8] but still doesn’t have significant changes in there.

Definition was not that changeable in itself, however, the policy and implementation of urban park was quite desirable. When the civilian government started, they had a five-year plan for urban park and make an environment office to take charge in urban green space and environment till 2002, but after 2002, Seoul focused on life zone and green space together and built a Seoul forest with citizen participation. And from 2006 to today Seoul have a Green Seoul bureau and trying to support the voluntary green activities. So, it seems changed the purpose of urban park and the way of utilization.

Meaning that, the origin of district park is improving citizen’s quality of life using urban green space. Nevertheless, in the past, district park working as just green area to provide green area or prevent improper urban development but, citizen’s using rate of district park is presently increased and the awareness of park also changed from green space for their daily life. Recently, Seoul much focused on implant the district park into citizens’ life zone, so now, they has many urban parks in Seoul Metropolitan Areas.

**Table 1.** Current status of urban park in Seoul.

Classify	Num. of Park	Area (km <sup>2</sup> )
Total	2,714	165.13
Urban park	2,119	115.94
Natural park(national)	1	37.35
Others (amusement, riverside, etc.)	594	15.84

(Source:SMG[9])

According to the urban park statistic data from Seoul Metropolitan Government, we can understand the changes are occurred both qualitative and quantitative way.

### 2.3 Proceeding reserach and reserach frame

Previous studies about district park or urban park was usually focused on physical change and related policy[11], for example, researched about the reason of urban park distribution especially for district

park in Seoul using political change.[12] And studied about the change of urban park policy, size and the administrative organization by the history of Korea.[13] Tried to see the change of statistical status data about park and green belt of Seoul. Most of research about the district park or urban park was focused on historical, political change and the size of park in Seoul. But our research takes socio-technical transition perspective and we also focused on the change of district park but not only analyze a quantitative change, we will concentrated in qualitative change and using the elements of change will find the system change. To help sustainable urban regeneration and inform future policy and research, we need to better understand the mechanisms that have brought about change, and the characteristics of the resulting system.

**Table 2.** The increase of district park.

Year	Area(m <sup>2</sup> )
2009	39,892,293.84m <sup>2</sup>
2010	43,093,142.44m <sup>2</sup>
2011	43,221,385.04m <sup>2</sup>
2012	43,267,831.44m <sup>2</sup>
2013	44,057,870.64m <sup>2</sup>

(Source:SMG[10])

For our research, selected the district park in Seoul to see the movement of urban green space and raise question for how system innovation has emerged, shifts relations and what is the interaction in it. So, to address these questions, going to do a system analysis, change analysis and case analysis to find key drivers, barriers and challenges for sustainable urban regeneration.

### 3. Emerging innovation and transition in the system?

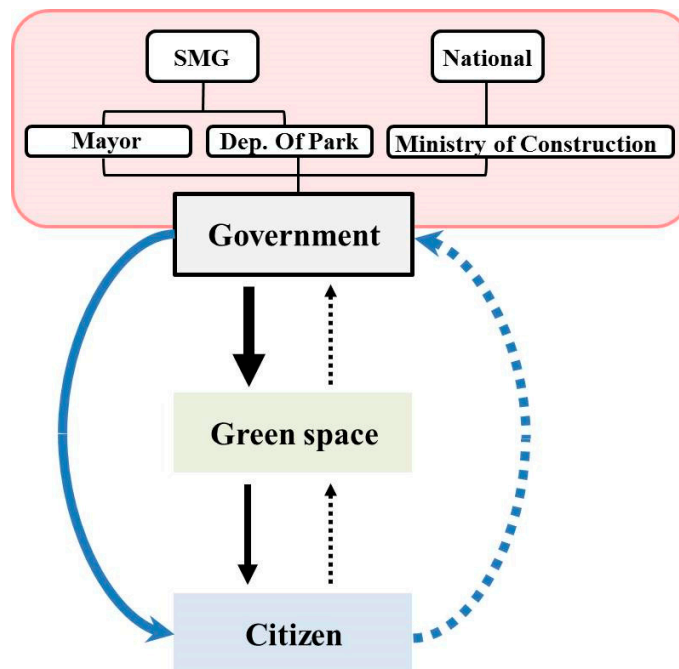
The dynamics of green space provision system will be analyzed in order to deeply examine and identify the change of the green space governance in Seoul Metropolitan Area. Before seeing the green space provision, it is necessary to briefly look in South Korea’s political and economic trends in 1990s. After the long period of President Park’s dictatorship in 1970s, South Korea could evacuate from extreme poverty, but was under control of military regime for 8 years. The economic status, however, gradually become better. 1990s come up to South Korea in this political and economic context.

#### 3.1 1990s green space provision system

In early 1990s, the green space provision system structure was simple. Only a few actors are involved in green space provision with vertical hierarchy. Simply the national and local governments were in charge of green space provision and the citizens[14], the main users for the parks, could utilize the parks through one-way provision from government. Ministry of Construction, Seoul Mayor and Dept. of park in SMG are in charge of green space provision. Not only provision, but the park was also managed

mainly by the local and national government. The government was more likely to rule the citizens, which is justified for efficient economic growth.

**Figure 4.** Green space provision system in early 1990s.



Two main reasons from landscape level can be drawn to explain why the system was stable at that time: economic and political reason. The early 1990s is at the primary step for South Korean Democracy. Yet, there are practices of governmental hierarchy inherited from 1970s and 1980s, when the government has overwhelming power. Only a few doubted and raised questions toward the system that almost everything was managed by the government including green space. Many citizens still believed and formed a consensus that government oriented top-down approach was efficient for economic development throughout society. So the rigid practice did not require to be changed. Many citizens considered that the public space should be managed by the government. [15] As for the economic factor, citizens did not have enough time and financial resources to enjoy the green space, because South Korea was still developing which leads the low needs for green space. The government had also limited resources and capacity to focus on welfare mainly for citizen's quality of life. In 1989, welfare budget took 3.13% of GNP in South Korea, which shows quite low portion compare to OECD average of 14.2%. [16] Primary demand for welfare from citizen is also focused on education and medical. [17] With the low economic status, there is even some negative perception towards leisure activities. [18] The leisure activities are mostly passive form. Watching TV takes the most portions among leisure activities. These factors are interrelated stabilizing the past system.

### 3.2 Cracks in the system

However, some major changes occurred in landscape level. Due to the rapid and remarkable economic growth in South Korea those stabilizing factors above no longer performed as stabilizers. South Korea's Democracy was also quite quickly developed. Also, increased environmental problems and awareness

raised questions in existing green space provision system. With the economic growth in South Korea, citizens do have resources for leisure activities. The awareness and negative perception toward the leisure activities have been changed within younger generation.

Sustainability problems were also emerged. Rapid urbanization with poorly considered planning decreased green space within urban area while social demands for green space increased as citizen has enough resources to enjoy leisure activities. Environmental problems especially the air quality became worse. National media focused on the issues by addressing the importance of green space. Once the basic economic problems were solved, citizens focused on their quality of life. They no longer wanted to live in the grey city, rather they wanted to live in greener and livable city. The existing system, however had a problem to reflect those social needs through the government oriented policy.

Those landscape changes and emerged sustainability problems loosened and put pressures to the existing system structure, which made cracks in the system providing opportunities for novelties in niche level.

### *3.3 Current system*

The current green space provision system is more complicated, more horizontal and more cooperative compared to the past system. Now not only government but also civil society and private sectors are involved in the green space provision. The important change is the relationship between civil society and government. Now the citizen participation is one of the important factors for current national and local policy, which is not imaginable in 1990s. This is remarkable change in green space as well, which enables to reduce the gap between social needs and policy as the civil society can deal with their own demands. But still the main driver for green space provision is government. The participation is on its early stage and not well developed yet, which gives a clue that where the system stands in terms of the transition curve. Many cases of citizen participatory green space show some problems and there are still active learning processes to develop this. Other progress is that private sectors are now concerned about green space. Basic concept for the private company involvement is their social responsibilities. The private companies use the green space provision as a marketing tool that can enhance their brand power. Education is now considered importantly to raise awareness regarding participation and green space.

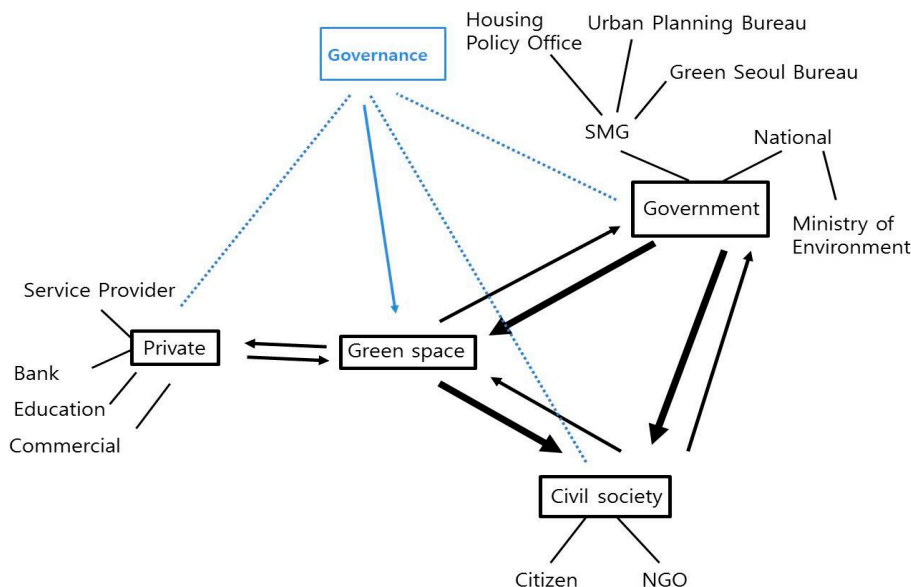
So now the cooperative governance becomes important for green space provision including private sector, public sector and civil society. Both landscape changes and novel experiments play key roles to reach the present green space provision system. While landscape changes provide opportunities, the experiments in niche level seem to utilize the opportunities well. We will identify this through looking at the concrete niche examples in Seoul metropolitan area.

## **4. Understanding the change of district park in Seoul\**

We will now discuss the changes in terms of district parks in Seoul. There are three parts of these great changes in Niche level, such as act and policy, research, and practice. Besides, new regimes have appeared according to various attempts from the niches and landscape. By analyzing the history of changes with the course of time, we could predict and lead the direction of district parks in Seoul to satisfy the citizen's needs.



**Figure 5.** Green space provision system in 2014



*4.1 The First generation (1992-2002)*

In this time, the characteristic of Korea government was having a highly centralized system. Therefore, the government used to control the society by enacting the act and policy. This way is also applied to field of district parks. From 1992 to 1998, Park, Greenbelt, Landscape architecture division in Korea Ministry of environment made Five-year plan for urban parks, the name of Green committee of citizen by Green traffic office. The purpose of this plan was making parks and appointment of greenbelt and preserving the landscape. And this was under the influence of Rio Earth Charter declared in 1992. It seems to be a first noticeable change in terms of park became more important meaning to people's life. There are some evidences to support these changes. The first research about citizen's participation in park was performed. The topic was 'Managing urban parks by community participation: for the five urban parks in Seoul' [19]. This research implies that people began aware of and suggested the need of community participation. But after 7 years later, 'A Study on analysis & revitalization of the small urban parks: a case study of Ssamji Parks' [20] was carried out. And Community Participatory Neighborhood Park Design -In the Case of Yangji Park in Sadang-dong, Seoul[21]. These research flows mean that people's growing interest was managing and vitalizing the movement for building urban parks by civil participation. Many practices based on researches and policies have also carried out since 1998. In 1998, the first park built by citizens was 'Sadang-dong Yangji Neighborhood Park'. Dongjak-Gu and local resident were building parties and management parties change from local resident to Dongjak-Gu. From the successful cases, the need of citizen group to which their opinions and requests from the citizens can be communicated and accepted is recognizable. In 2002, 'Wonseo-dong Ppalraetgol Rest Area' was built by 'Citizenship Coalition for making city to walk' and 'Local resident' which manages the park. The period, from 1998 to 2002, was expanding and providing the urban parks by local residents. The Park and green division in Korea Ministry of environment established the city center management plan and planted 10 million trees in Seoul. These niche experiments mean that the government was also aware of necessity of parks and began to build urban parks in Seoul.

#### *4.2 The Second generation (2003-2007)*

This time means that government is aware of improvement of citizen awareness and demand for urban parks, especially in Seoul. Because this awareness, the government began to make urban park reflecting the citizen's opinion. From 2003 to 2006, the effort was started through 'Promoting of 100 million pyung neighborhood green places' mission. And starting the Seoul forest construction by Seoul Green Trust and Environment bureau is also the other significant event. Seoul Green Trust established in 2003 by Forest for Life, which is nation-wide forest NGO in Korea[22]. And they did volunteer activities at park as ecological experience collaborated with environment bureau in Korea Ministry of environment. In 2005, the act on urban parks was made and executed the appointment of greenbelts to preserve the nature. And BukSeoul forest was built by GreenSeoul Bureau which is significant part of regime in Seoul urban park. As these niche experiments is carried out, Seoul metropolitan government's activities became a part of regime in urban parks. They made Green Seoul Bureau and the bureau had six divisions, such as greenseoul, park policy, park development, landscape, natural and ecology. Each division works together to manage the park synthetically. In 2007, the ordinance on 'Urban greening in Seoul' was enacted. The purpose of ordinance is conservation and prevention of urban green space in Seoul based on 'Act on the urban park and green'. The SMG Green Seoul Bureau affects emerging the niche experiments.

The significant meaning of this trend is that people are aware of importance of citizen's participation and building green space, especially parks located near residence zone. Reflection these policy trends, researches focused on resident's participation for managing urban parks. 'Study on the Case of Park Formation based on Residents' Participation'[23] and 'Community Participatory Small Park Design'[24] was conducted. And the topic of 'Practical Applications of the private sector to the management of parks and green spaces'[25] was performed. In 2005 and 2007, there were researches focused on citizen's participation, such as 'A study on the citizen's participation in the park building and green space administration'[26] and 'Plan to create neighborhood green spaces with citizen participation'[27]. The practices carried out as the same context. In 2003, Samyang Elementary School made a playground according to the opinions from school Council, local residents, students, parents and teachers. After creating the playground, school council and local resident have managed continuously. And in 2005, ecological apartment was made and managed by 'Green Consumer Network in Korea' and local resident. After one year, Seoul Forest was made by 'Seoul Metropolitan Government' and 'Seoul Green Trust'. They promoted citizen's participation from the planning stage and reflected people's idea and participation. In 2007, Forest Development Project in our neighborhood was executed according to 'Seoul Metropolitan Government', 'Seoul Green Trust' and local resident. It is recognized that this practices try to make social life and life zone into the urban park and encourage citizen participation and NGO vitalization. As a result of their effort, Green trust which is close to the regime was emerged and vitalized.

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### *4.3 The third generation (2008-Now)*

In this period, more concern about social activity in urban park has appeared and Seoul metropolitan government is trying to promote citizen's participation and work with NGOs. They announced 'Declaration of GreenSeoul' and support the voluntary green activity. And the park management bureau changed their composition as follow; Park and Landscape planning, Park development, Landscape, Natural and Ecology, Landslide Prevention Division.

About the researches, a study on 'creation of Eco-welfare city through park and green space' [28] and 'civic adoption system into trees and parks in Seoul' [29] was performed. These researches have huge meaning as expanding the scale, from resident's participation to social value for park.

The most leading group of urban park in Seoul was Seoul Green Trust. Their action gave huge effects on citizen's thoughts and actions and local governments' policies. So, it is meaningful to look their work up.

### *4.4 Seoul green trust*

The purpose of Seoul Green Trust established in 2003 is to make and maintain the city of Seoul greener and healthier through the participation and support from the citizens[22]. And they aim to serve more greenery to the citizens of the next generation by promoting a 'One More 3.3m<sup>2</sup> of greenery per Citizen'. They also have partnership with Seoul Metropolitan Government including fund-raising campaign to expand the green spaces in Seoul. And they participate in project which is to convert Ttukseom sports complex into eco-park proposed by Seoul Metropolitan Government. After starting the project, Seoul Green Trust invited 5,000 citizens and 70 corporations to join the planting trees campaign in the new park, Seoul Forest and the campaign raise the fund of 4 billion won.

#### *4.4.1 Characteristics*

Like this starting point, the Seoul Green Trust has unique characteristics. First, NGO/NPO played an important role and participated in actively from the very first stage of establishment of this organization. Second, this organization played various roles in building the park, such as park design, fund raising, and tree planting with people. The last one is Seoul Green Trust has partnership with Seoul Metropolitan Government and supported by them.

#### *4.4.2 Roles*

Their first aimed role is designing the ecological and environmental education program in Seoul Forest. This program is conducted by eco-guide volunteers and consists of five different fields programs, such as tree learning program, insect learning program, wetlands education program and park eco-tour program. They want to make citizen feel the park and forest is familiar and friendly place.

The other role is to create community parks which are their main projects. From 2007, the organization was aware of the social problem in Seoul including environmental problems, severe social problems such as a jobless, a juvenile delinquent, an aging society and vandalism. According to research result, to make district parks, "Uri-Dongne-Soop" in Korean, is helpful to solve the social problem which is suggested above and revitalize community. So, they invited experts in field of architecture and

landscape and raise the fund from several sponsors and matching fund. Through community workshop, they design the community park and educate park management.

#### 4.4.3 Practices

After founding this organization, they did some notable action in field of citizens' participation to the park. First action was creating Seoul Green trust Forest with an area of 3,800 pyeong in Seoul Forest and citizen's planting family trees in Seoul Forest in 2003. In 2006, they held the Seoul Green Trust Urban Forest Symposium to promote Citizens' participation. The topic of Symposium was 'culture of making park with citizen'. At that time, they also have campaign, 'Making Green space by citizens' participation' in Yang-Jae river and held 'The Academy for urban forest leader development'. And starting the neighborhood park development project in 2007 as mentioned above. They try to draw citizens' participation and interest. So they distribute the Box Garden to community (2008) and select the outstanding volunteers in Seoul Forest funded by education center for citizen in Seoul. In 2011, they distribute the pocket garden and hold a symposium on urban forest, garden and community garden to make community garden.

### **5. District park transition**

Build up the district park is one of the methods to achieve a sustainable urban regeneration, so, through this research, will figure out the key drivers which make transition happen and identified how much they are contribute to sustainable urban regeneration. Finally, finding barriers, blocking the transition process and suggest challenges to overcome the difficulty.

#### *5.1 Key drivers*

The key drivers of urban regeneration measures for sustainable city is as in the following things; environmental problem (particularly the climate change), social needs, trust in government and citizen participant.

First, climate change and environmental problems had directly influence on the urban area and overall condition. If we going back to the system analysis and could find the time period of first step is close to Rio Summit, namely, climate change is working as a trigger and key driver.

And when the society had experience of economic growth and change of administration, constructed the fundamental infrastructure for a basic livelihood than now, citizens' social needs are shift to the quality of their life and according to these change, the civil demand of district park is increased. Third, the existing centralized governments were disappointed because they couldn't accept citizens' request and change over time to these days, local government and autonomous organizations are encouraged by citizen.

Then, local governments and private businesses encouraged enlargement of citizen participation for sustainability, especially some resources to maintain the district park. So, they try to cooperate with civil organization, NGOs and citizen to supporting financial side and creating an atmosphere.

## *5.2 Barriers and Challengers*

District park provision was addressed by strong key drivers, however, and unfortunately, has a barriers, make transition hard. Till now, the long-term and comprehensive approaches of urban regeneration are in the air because of fragmentary urban park and as a result, couldn't satisfy the original purpose. Beside, just few NGOs are take part in citizen cooperative policy making, so, show a limitary governance tendency and it also had influence on the direction of whole related policy. These lead to a disagreement of direction. Additionally, Korea usually has a very short-time limitation that's the reason why cannot address a comprehensive long-term project for urban regeneration.

And many activities and projects from citizen, civil organization, etc. are still cannot independent from central concentration of policy, particularly financial investment and it bring an imbalance of government and other sectors, so, couldn't achieve a true governance and that's meant 'being a cause of impediment for transition'.

These barriers of district park transition block the sustainable urban regeneration. So, how we overcome this barriers? What are the challenges of sustainability? We suggest few challenges to help; alternative approach for participant, secure sound finance, improvement of working condition, organic implement. At the first, should established lots of alternative approach to considering diverse conditions for active citizen participation and providing successful experience to get confidence themselves.

One of the biggest problems for transition was financial dependence. So, to accomplish the sustainable goal, have to set up the long-term planning about how to secure the financial independent and get out of centralized administration. After that, throw away a result central management system for integrated long-term projects and finally, if we want to build a sustainable city, it would need an organic urban park planning. Stop focused on only district park individually, need to connect up to every urban park, located in Seoul Metropolitan.

## **6. Conclusions**

This paper applied MLP perspective and transition theory to understand green space governance change in South Korea between the early 1990s and 2014 by study on the district park in Seoul. The system analysis implies that the rapid economic and political developments were key drivers for the green space governance change, which made cracks in the system providing opportunities to niches. Proper experiments were carried out in niche levels. (e. g. Seoul Green Trust) Learning processes can be also found to develop those niches. Thus, we can conclude that there are active interactions among landscape, regime and niche level reinforcing each other to accelerate the transition in green space governance of South Korea. Yet, the novelties from niche level should be developed further through learning processes. The current regime therefore is not fully stable as well. Therefore, we can also say that the green space governance in South Korea is on "accelerate stage" in transition curve. To place it toward stabilized stage, active experiments and learning processes would be required with effective interactions and exchanges among research institute, government, public sector and civil society.

## **Conflict of Interest**

The authors declare no conflict of interest.

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