

Sustainability of Green Space Maintenance

By

Wataru Nomura

MA in Environmental Studies, The University of Tokyo (2003)  
BA in Agriculture, The University of Tokyo (2001)

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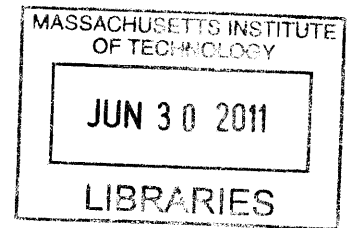
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Author \_\_\_\_\_  
Department of Urban Studies and Planning  
May 19, 2011

Certified by \_\_\_\_\_  
Professor Anne Whiston Spirn  
Department of Urban Studies and Planning  
Thesis Supervisor

Accepted by \_\_\_\_\_  
Professor Joseph Ferreira  
Chair, MCP Committee  
Department of Urban Studies and Planning

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## Abstract

In Japan, recent changes in socio-economic and political structures -- decreasing tax revenue, declining communication among community members, and privatization of public services-- have influenced existing maintenance systems initiated by the public sector. In this study, I examine maintenance systems of green spaces, identify the limits and possibilities of these practices, and conduct a literature review of US and UK cases to obtain some ideas for future practices in Japan.

The current Japanese practices aim to utilize the resources which had not been fully integrated with existing maintenance systems, such as private corporations and community and volunteer groups. The case studies clarified three keys for making these practices sustainable: long-term strategies, self-sustained volunteer and community activities, and multiple funding streams. In the circumstance where the public sector suffers long-lasting financial hardship, these practices need to be developed further.

To apply a model of green space maintenance in one country to other countries is not easy because cultural, social and political differences have significant impacts. Both in the UK and the US practices show the importance and difficulties of approaching multiple and sustainable funding streams. However, despite the differences of backgrounds, especially of donation culture, the approaches found in the US practices -- public and private partnerships for creating long-term strategy, helping community activities become self-sustained, developing public outreach-- would help Japanese to further its efforts to establish a sustainable system for green space maintenance.

Thesis Supervisor: Anne Whiston Spirn

Title: Professor of Landscape Architecture and Planning, Department of Urban Planning



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## 1.Introduction

### 1-1.Introduction

In the last one hundred years, Japanese cities have built and preserved various types of urban green spaces, including urban parks, road and river corridors, woodlands, and agricultural areas. Until recently, the main issues related to these spaces have been how to build and preserve them under the competition from pressure for other land uses. Today, in the circumstance where public funds are decreasing due to the decline in tax revenues, it is essential to establish a sustainable maintenance system for these green spaces; maintenance systems can no longer rely solely on public funds. In addition, other socioeconomic and political changes such as declining communication among community members, privatization of public services, increasing volunteer activities, and increasing interests in biodiversity, have had significant influences on green space maintenance.

Because local governments have built and preserved urban green spaces with longtime intense efforts, it is vital that they be concerned with the maintenance of these spaces. Japanese cities have raised funds for urban infrastructure, including green spaces, based on increasing population and tax revenue. In addition, during the 1990s and early 2000s, investment in infrastructure was executed as economic recovery policy.

Although the Japanese government learned methods for building and preserving green spaces from European countries and the United States and adjusted them to the Japanese context, maintenance of these spaces has not been given high priority. Social, cultural, and political differences between countries may have significant influence on the

implementation of maintenance practices. However, there has been no study analyzing the entire range of factors related to green space maintenance.

In this study, I will analyze current practices for green space maintenance in Japan, the United States, and the United Kingdom and clarify the evolution of these practices; I will then examine the key issues of maintenance practices conducted in the United States and investigate their applicabilities. Therefore, the research investigates the following questions:

- what are the limits and possibilities of current Japanese maintenance practices that aim to overcome recent issues?
- how have the public and private sectors played different roles in establishing sustainable maintenance system in the United States and United Kingdom? and
- what differences between cultures prevent the introduction of one model to another country?

## 1-2.Methodology

This study compares Japanese cases with cases in the United States and the United Kingdom. First, I conducted a series of literature reviews to clarify the current maintenance practices that Japanese cities employ for green spaces. Second, I analyzed the possibilities and limits of the practices based on interviews with officials in governments and private management organizations. I then conducted a literature review of the cases in the United States and the United Kingdom, focusing on those issues I investigated in Japan: fundraising, volunteer activities, and long-term strategies for

maintenance. After comparing the cases of different countries, I discuss how social, cultural, and political factors may influence maintenance strategies.

I focus on three types of green spaces in Japan: large urban parks, small urban parks, and preserved woodlands. In Japan, the Ministry of Land, Infrastructure, Transport, and Tourism has introduced a hierarchy for urban parks (Fig.1). In this study, urban small parks include “city block parks” and “neighborhood parks,” and large parks include “comprehensive parks,” “sport parks,” and “regional parks.” Preserved woodlands include the woodlands that are designated as preserved areas by the regulation based on the Ancient Capitals Preservation Law, two Metropolitan Greenbelt Preservation Laws, and the Urban Green Space Law.

In the case of large parks, I focus on the private companies to whom have been transferred the responsibilities for maintenance from the local governments. I selected parks in Tokyo Metropolitan Government and Osaka Prefecture as cases of parks around metropolitan areas and those in Nagano Prefectures as cases of parks in smaller cities. As for small parks, I selected parks in Kawasaki City and Hiroshima City because these cities have adopted policies that give communities responsibilities for park maintenance. Regarding woodlands, I chose Kamakura City and Kobe because these cities are developing new maintenance strategies (Fig.2). I interviewed those who have the responsibility for maintaining green spaces, including park divisions of local governments, private companies, and community organizations.

### 1-3. Literature Review

In order to approach a wide variety of methods for green space maintenance, it is helpful to expand the scope of investigation into public or open space maintenance. Carr, Francis, Rivlin, and Stone (1992) showed the diversity of public space types in the context of the United States, a typology which ranges from public parks to playgrounds, plazas, and waterfronts. Hough (1995) categorized open spaces in view of natural and human processes and pointed out the need to implement an approach rooted in ecology to promote the succession of woodlands or grasslands. From the point of maintenance, one might classify green spaces according to usage, function, and levels of maintenance required.

Carmona, Magalhaes, and Hammond (2008) divided the challenges faced by local authorities responsible for managing public spaces into four categories: investment, regulation, maintenance, and coordination. Their survey of parks in England indicated that local authorities have not been able to raise sufficient funds for maintenance due to the lack of public awareness of its importance and because of constant pressures to reduce expenditures. While several authorities referred to the possibilities of using human and monetary resources more efficiently, most authorities thought the current resources were inadequate for maintaining public spaces. In addition, the international case studies they conducted demonstrated that local authorities, which had responsibility for maintaining public spaces, had tried to remove the barrier between different bureaus that lead to inefficiency. They concluded that it was also desirable for local authorities to create a system that can reflect the different needs of each space.

During the last half-century, many US cities have experienced financial hardships, which often have resulted in the devastation of urban parks. Some researchers have conducted studies to investigate innovative approaches for investing in urban green spaces and reducing public expenditures; Crompton and Havitz (1999) illustrated a variety of tools for raising funds, including taxation, bonds, contracting-out, donation, sponsorships, and other public private partnership methods. Some researchers have focused on the increasing roles of private organizations for park maintenance or deepening relationships between open spaces and nearby communities (Fox, Koeppe, & Kellam, 1985; Francis, Cashdan, & Paxson, 1984; Pincetl, 2003; R. Ryan, 2000; R. L. Ryan, 1997, 2003, 2005). Since its opening in the 1850s, Central Park in New York City has been an attractive target for researchers. After the park's restoration from its devastated condition in the 1970s and the 1980s, researchers focused on the success of partnerships between public and private sectors. Some researchers focused on funding campaigns and maintenance strategies (Garvin & Brands, 2011; Madden & Project for Public Spaces, 2000). Others claimed that the privatization of park maintenance generated the conflict between users and maintenance organization or other nonprofit organization and the Central Park Conservancy (Cooke, 2007; Murray, 2010; Taylor, 2010).

## 2.Green space maintenance in Japan

This chapter provides the background of green space maintenance in Japan and describes ongoing maintenance practices that reflect recent socioeconomic and political changes. The case studies of three different green space types –large parks, small urban parks, and preserved woodlands-- led me to highlight three topics that could become both opportunities and constraints for creating sustainable systems for green space maintenance: long-term visions, volunteer support and community participation, and funding.

### 2-1 Background of green space maintenance in Japan

#### 2-1-1 Development of green spaces

Japanese cities have built and preserved various types of urban green spaces with the help of the national government that has provided the basis of planning systems for creating green spaces and allocated subsidies for them. Small urban parks have been built through land readjustment projects since 1919, when the first City Planning Law was issued. This method enables the construction of regularly shaped parcels and planned road networks out of scattered and irregular parcels by forcing landowners to contribute a certain percent of their lands for public spaces (Sorensen, 2000). In 1933, the national government issued policy guidelines that recommended that three percent of the total project areas should be allocated for parklands; the number was increased to five percent in the restoration projects of the World War II (Sato, 1977). These projects have significantly contributed to the increase in small urban parks.

In contrast, large parks have been developed following city planning initiatives. The first City Planning Law issued in 1919 was applied to six cities --Osaka, Kyoto, Yokohama, Kobe, and Tokyo-- and then gradually to many others. Although producing park plans was not a common practice in the early days compared with creating road plans, many cities established park plans during the process of the World War II restoration. During this period, many large parks were built in the areas previously used for military purposes. Since 1972, the national government has encouraged municipal and prefectural governments to build urban parks by implementing five-or-seven year park construction plans that designate how many parks should be developed and how much money should be allocated for them. As a result, the total area of urban parks has increased: urban parks accounted for 25,299 hectares in 1972, 45,130 in 1981, 70,097 in 2001, and 116,667 in 2009 (Fig.3) (Park, Green Space, and Landscape Division, 2008b).

In metropolitan areas of Japan, under the pressure to develop that began in the 1950s, cities and prefectures have tried to protect woodlands from development by setting strict land-use regulations and purchasing land. These policies have been executed through the Ancient Capitals Preservation Law issued in 1966, two Metropolitan Greenbelt Preservation Laws enacted in 1961 and 1962, and the Urban Green Space Preservation Law enacted in 1973 (revised as the Urban Green Space Law in 1993). In 2008, the total area preserved by these four laws amounted to 12,000 hectares (Park, Green Space, and Landscape Division, 2009a, 2009b, 2009c). Although the goals for preservation under each law are different, each prohibits landowners from developing the lands regulated by these policies; instead, landowners are given the right to sell the land to the city at a reasonable price. In addition to these policies, the City Planning Law and

the Forest Act have also contributed to preserving woodlands in rural areas: the former by dividing the city planning area into an urbanization promotion area and an urbanization control area, and the latter by designating forest reserves that are protected from destruction.

The area of urban parks per person amounted to 9.7 square meters in 2009 (Park, Green Space, and Landscape Division, 2008a). In addition, cities can adopt a variety of measures for preserving woodlands or other natural green spaces. In this circumstance, maintenance has become an important issue for municipal and prefectural governments that have spent monies for green space construction and preservation. Because many governments have suffered from decreasing revenues and many cities have the problems of population decline and an aging society, it is important to cultivate the resources that were not utilized before in order to create a sustainable system of maintenance. For example, although cities have built small urban parks for young people, recently the percentage of children who use the parks has been decreasing.

Today, following the Urban Green Space Law revised in 1993, Japan's major cities continue to build, preserve, and maintain open spaces according to the citywide master plans for preserving green spaces and promoting greening (Green Space Master Plan). The targets of this plan are not only urban parks, but also preserved woodlands or other natural areas, urban agricultural areas, and road and river corridors. However, strategies for maintaining these areas were not included among the measures that the Urban Green Space Law expressly encouraged, partly because the main objective for creating the plan was to obtain national government subsidies to build urban parks or buy lands for preservation. Many cities have amended the plans in the ten years since they



were first adopted. The recently revised plans, like those of Kamakura and Kobe, do include maintenance strategies. For example, these plans recognize the need to create a management plan for green spaces and promote programs to increase volunteer support (Kamakura City, 2006; Kobe City, 2011).

#### 2-1-2. Designated Manager System

In addition to the changes in the ongoing planning documents, the system for public space maintenance has also changed. In Japan, the public sector has had the sole responsibility for maintaining public facilities; until 2003, those who could manage public facilities (such as libraries, sports facilities, parking lots, senior centers, exhibition halls, and urban parks), were limited to municipal or prefectural governments or organizations founded by public funds. In the circumstance where the pressure to privatize public services increased in the late 1990s, the Designated Manager System, a new nationwide policy introduced in 2003, forced all the governments to choose between two options. The first is to transfer most responsibilities for maintenance of public facilities by contracting with private companies or other organizations through a competitive process. The second one is to keep the responsibilities and contract directly with landscaping companies (Park, Green Space, and Landscape Division, 2009d).

The goal of the system is to reduce public expenditure and improve the quality of maintenance by encouraging privatization. A report by the Park, Green Space, and Landscape Division of the Ministry of Land, Infrastructure, Transportation, and Tourism (MLIT) in Japan states that municipal and prefectural governments have applied this new system to many large parks and parks with sports facilities (Park, Green Space, and

Landscape Division, 2009d). As a result, many cities and prefectures have reduced their expenditures for maintenance of large parks by introducing competition to the contract processes. The report by MLIT states 97% of the respondents --officials of government-- answered that they had been successful in reducing public expenditure by introducing the Designated Manager System.

## 2-2. Backgrounds of cases

The cases in Japan are large parks in the Tokyo Metropolitan Area, Osaka Prefecture, and Nagano Prefecture; small urban parks in Kawasaki City and Hiroshima City; and woodlands in Kamakura City and Kobe City. The Tokyo Metropolitan Government has built 86 large parks, Osaka Prefecture 18, and Nagano Prefecture 9. As for small urban parks, Kawasaki City has 942, and Hiroshima City 980.

### Tokyo Metropolitan Government

The Tokyo Metropolitan government has built 86 large parks, two of which are managed by the government directly; the others are managed by an organization funded by the government or private companies. The government has created a master plan for the large parks and management plans for each park (Tokyo Metropolitan Government, 2004, 2006). The major goal of the master plan is to show a new future for their large parks by incorporating citizens and the private sector into park management. The master plan lists ten projects that are in line with the three principles for the future of the parks: the transmission of a healthy environment to the next generation, the enhancement of the parks' value as an urban resource, and the providing of life-enriching activities.

According to the direction the master plan indicates, each park management plan determines the future image of the park, as well as goals for the next ten years and principles of maintenance, operation, construction, and reconstruction.

In Noyamakita-Rokudouyama Park, which opened in 1988, private park management companies have provided diverse volunteer opportunities, which have contributed to improving the levels of maintenance. Located in the Sayama-Hill area of Tokyo, the western part of the Tokyo Metropolitan area, the park, which covers one hundred seventy hectares, has the environment of a village in the agricultural area of old Tokyo (Fig.4, Fig.5, Fig.6, Fig.7). Since 2006, when private companies began managing the parks, both the total number of volunteer participants and the area they have worked on have increased sharply, from 976 persons in 2005 to 5,343 persons in 2008 and from 3.5 hectares in 2006 to 9.4 hectares in 2008.

## Osaka Prefecture

Osaka Prefecture has built eighteen large parks, all of which were managed by an organization funded by the prefecture until 2005. Currently, eight of them are maintained by the organization or consortium that includes the organization; one is managed by another organization funded by the prefecture; and the others are managed by private companies (Fig.8). In contrast to the Tokyo Metropolitan Government, Osaka Prefecture, which does not have a long-term plan for park management, has emphasized cost reduction most among various aspects of park management. However, one member of the Osaka prefectural assembly complained about the competition process, pointing to the fact that the winner had links to the government and had not tendered the lowest bid.

After the discussion, Osaka Prefecture decided to shrink the period of contract from three years to one year and hold another competition the next year.

#### Nagano Prefecture, Shinshu Sky Park

Nagano Prefecture has built seven large parks, all of which were managed by an organization funded by the prefecture until 2005. In contrast to the large parks in Tokyo and Osaka, those in Nagano Prefecture have been built in less populated areas. Currently, three of them are managed by municipal governments and the others by private companies. Nagano Prefecture does not have any management plan for its large parks.

The Shinshu Sky Park, located in Matsumoto City, Nagano Prefecture, has been maintained since 2006 by TOY-BOX, a consortium consisting of three local companies (four companies since 2008). A regional park built around a small airport, this park has an area of 149 hectares with both fee-based and free facilities including a gymnasium, athletic stadiums, large lawn areas, a multi-purpose sport stadium, soccer fields, tennis courts, a domed stadium, trails, and several landscaped areas (Fig.9, Fig.10, Fig.11, Fig.12, Fig.13).

#### Kawasaki City

Kawasaki City, located next to the Tokyo Metropolitan area, has developed a community participation project for maintaining small urban parks (Fig.14, Fig15, Fig16). In order to tackle emerging issues, such as the deregulation of public services, the promotion of citizens' autonomy, and the increasing number of baby boomers retiring, in 2004 the city launched a new system for maintaining urban parks: the Commissions for

Park Maintenance. Under this system, community organizations, called park maintenance commissions, are responsible for cutting lower branches of tall trees and pruning shrubs, in addition to cleaning and mowing, which community groups had performed for a long time (Kawasaki City, 2006). The commissions also have responsibility for giving permissions to those who request the use of space for a specific purpose, such as festivals, flea markets, and croquet matches. One of the concepts of this system is “local issues should be solved within the area,” a practice that deals with the emerging issues by encouraging those who live in the neighborhood to use small parks intensively as neighborhood gardens, not as properties owned by the city. The number of commissions has been increasing steadily; 325 organizations maintained 435 parks in 2010 (the total number of urban parks is 1,163).

### Hiroshima City

Hiroshima City started an intense community participation project for rebuilding and maintaining small urban parks in 2001 when the city established a master plan for green spaces (Fig.17, Fig.18, Fig.19). In the master plan, the city declared that it would make itself green by adopting “a green city created by its citizens” as one of its main concepts, a goal to be achieved through community participation (Hiroshima City, 2001).

In 2004, the city created a vision for renovating small parks. The document outlining the vision pointed out that the role of the parks was becoming broader as children were having trouble finding spaces they could play in as they wanted, and old people needed the parks for activities in their long leisure time (Hiroshima City, 2004). The document stated that standardized designs of the parks, emphasizing safety, easy

maintenance, and equity, had prevented their users from doing the activities they would really like to do. Moreover, users complained that they were prevented from doing what they wanted because of the long list of prohibited activities the city posted. The document concluded that communities should become the basis for organizations that manage the small parks instead of being groups that only clean and mow.

Based on this vision, in 2005, the city started the “neighborhood park renovation project” to renovate small parks with community participation. Many of the groups that took part in this project installed flower beds in the parks. In 2011, the city revised the master plan for green spaces. As one of the major programs, the plan refers to the application of a Designated Manager System for small parks, a new policy enabling various organizations, including community groups, to manage the parks themselves (Hiroshima City, 2011).

## Kobe City

Kobe City, a port city which has the Rokkou Mountains at the back of its urbanized coastal area, has preserved the mountains from development (Fig.20, Fig.21, Fig.22). Kobe’s city structure dates from 1868, when Kobe opened as an international port. At that time, the Rokkou Mountain Range was unforested, and floods and landslides often occurred. Since 1902, when the first forestation project was carried out in order to increase percolation of rainwater and prevent landslides, more than ten million trees have been planted. Although these projects began as public works, since the 1950s, citizens and the private sector have played larger roles in raising funds and performing volunteer support. The Rokkou Mountains have been used for various recreation activities; in

addition to the hiking that started in the 1910s, skating and golf became popular in the 1950s. In 1956, the Rokkou Mountains were designated as a national park by being integrated into Setonaikai National Park. However, this does not necessarily mean that the Rokkou Mountains were preserved in a good condition; the primary goal of the National Park Law was not primarily to protect nature but to promote tourism (Havens, 2011). Today, most of the forests are also designated as preservation areas based on the Metropolitan Greenbelt Preservation Law and Forest Law and protected from development.

While most of the forest has been protected from residential or commercial development, the condition of the forest itself has been declining. Lack of maintenance activities such as thinning trees, cutting branches, and removing vines, has constrained the growth of planted trees and grasses on the surface. In addition, invasive species, including pseudoacacia and moso bamboo, have been expanding.

Kobe City is now trying to improve the levels of forest maintenance and establish a sustainable management system in cooperation with multiple stakeholders, including citizens, businesses, academic organizations, and public organizations. Within the public sector alone, four different organizations are involved: Kobe City, Hyogo Prefecture, the Ministry of Land, Infrastructure, Transportation and Tourism (these three organizations own and maintain forest), and the Ministry of Environment (the ministry has responsibility for regulation related to the Natural Park Law). Of the 11,000 hectares of the Rokkou Mountains area in the city, the city owns 3,400 hectares, the national or prefectural government 1,400 hectares, and private owners 6,200 hectares. As for the relationship with private companies, the city has been conducting two citizen

participation projects, named Kobe Forest Elementary School and Kobe Forest School, which are sponsored by two food companies. In order to promote the maintenance of the Rokkou Mountains by setting a common goal for multiple stakeholders, the city is planning to create a long-term management strategy (Kobe City, 2011).

### Kamakura City

Kamakura City has protected the woodlands surrounding its city center from development (Fig.23, Fig.24, Fig.25). In the 1960s, developers began building large-scale residential developments on the hilly forests. After the late 1970s, when the pace of large-scale development decreased, small-scale development projects continued to destroy the forests. In order to protect the forests from development, the city designated some parts of the forests as preserved areas based on the Ancient Capitals Preservation Law. The city has designated 615 hectares of woodland as preserved green space based on the Ancient Capitals Preservation Law, the Tokyo-Metropolitan Greenbelt Preservation Law, and Urban Green Space Law. The city also purchased forests that were prioritized for preservation as lands for urban parks.

Today, while the city has kept purchasing preserved lands, it has considered the maintenance of woodlands as one of its major goals. The green space master plan, as revised in 2006, pointed out that the risk of disaster was increasing due to the lack of maintenance of trees on slopes. In that revision, the city added the making of the guidelines for green space maintenance to the list of projects (Kamakura City, 2006).



## 2-3. Current maintenance practices in Japan

### 2-3-1. Large parks

The Designated Manager System has contributed to reducing the public expenditure for managing large parks (see section 2-1-2). Nagano Prefecture reduced by nineteen percent the expenditure for park management from public funds from ¥518,000,000 in 2005 to ¥418,950,000 in 2006 by adopting the Designated Manager System for the Shinshu Sky Park (Nagano Prefecture, 2007, 2008, 2009, 2010). In this case, an organization founded using public expenditures maintained two large parks built by the prefecture; the organization was disbanded in 2005. Since then, a private maintenance organization has continued reducing the annual maintenance expenses (¥398,000,000 in 2009). The number of visitors increased from 542,422 in 2005 to 618,297 in 2006, although the numbers have been fluctuating year by year (556,584 in 2009). However, five years after the private organization began maintaining the park, it can no longer continue to reduce maintenance costs. The managers of TOY-BOX, the consortium that manages this park, said that although they had reduced the cost for daily maintenance by taking full advantage of the resources of each company constituting the consortium, they found it difficult to continue reducing the cost year by year.

Both organizations maintaining large parks and park departments of cities and prefectures worry that the constant pressure to reduce public expenditure will decrease the quality of the maintenance. An officer of the city planning division of Nagano Prefecture stated that the financial department had asked them to reduce costs by several percent from the price of previous contract. An official of the Park Department of the Tokyo Metropolitan Government stated that, in the process of competition in 2010, the

department had tried to make the percentage of cost cut lower than that in the previous competition, 30% of the total evaluation. Although this attempt aimed to give higher scores to the proposal of high levels of management, it was not successful after discussion inside the government. In the case of the Osaka Prefectural Government, the percent of cost cut for the whole evaluation score amounted to fifty. The government announced that a bid that was 30 percent lower than the existing cost would receive the highest evaluation. Although the Osaka case is an extreme example that emphasizes the reduction of public expenditure, other local governments have also been requiring candidates to propose lower prices than the current prices.

Although those who are involved with park maintenance are concerned about further reduction of public expenditures, they are also concerned about the quality of park maintenance. The report by the Ministry of Land, Infrastructure, Transport, and Tourism says that 64.8% of respondents, city officials, answered that they had required park management organizations to have a self-evaluation process, such as a user questionnaire (Park, Green Space, and Landscape Division, 2009d). However, the interviewees of both private and public sectors complained that it was difficult to obtain meaningful feedback from the results of questionnaires.

Another concern is that the prefectural governments have less interest in maintaining parks than in building new ones. For example, an official of the City Planning Division in Nagano Prefecture stated that the prefecture intended to delegate the responsibilities for managing regional parks to municipal governments. In the case of Osaka Prefecture, because the park department had given the responsibilities for maintaining large parks to an organization founded in 1958 and funded by the

government, the organization had known the parks' true conditions better than the park department. Instead of spending its resources for park maintenance, the park department had focused on building new parks. The introduction of the Designated Manager System changed the situation. When introducing the competition, the prefecture highlighted the cost cut partly because the park department did not have any strategy for maintenance of parks. A worker of the Hattori Green Space in Osaka Prefecture mentioned that, after his organization had won the competition, officials of the prefecture asked it to propose a plan for a fee-based botanical garden with educational facilities. He stated that it was difficult for a designated manager to make a persuasive proposal without the initiative of the park department. This example shows that in the absence of a long-term vision, neither public nor private sectors can propose sustainable management systems for parks.

Another problem of the Designated Manager System is that park management is usually not very profitable, although the major aim of the policy is to utilize the resource of private companies. Several designated managers of large parks came from construction industries that have experienced losses that accompany decreasing public expenditures for public works. A director of Sayama-hill Partners, a consortium consisting of four private companies that have different specialties, admitted that park maintenance is not very profitable. One advantage he stated is that, for construction companies, which usually receive monies only after the completion of projects, to receive monies once a month or every two months improves their cash flow.

Today, in addition to these funding issues, encouraging recreational and educational programs has become more and more important in large parks. Both of two directors of different private companies I interviewed said they could improve the level

of service provided in the park by developing various educational and recreational programs, a view which represented a shift in priorities. However, since municipal and prefectural governments have focused only on maintenance activities such as cleaning, pruning trees, and managing gymnasiums, they do not have appropriate criteria to judge the programs that management organizations have suggested.

A change in managing companies from one contract period to another is often considered to be a problem for both public and private sectors. On one hand, such change is a core goal of the Designated Manager System, which aims to make the most use of the resources of the private sector through competitive processes. However, this aim has not necessarily been achieved. For example, the number of organizations that won the competitions by the Tokyo Metropolitan Government was the same in 2006 as it was in 2011. In other cases, some park users, especially volunteer participants who had had a good relationship with previous park management organizations, had trouble communicating with the new organizations (Urata & Hirata, 2007). In order to credit the good practices of existing management organizations, the Tokyo Metropolitan Government changed the criteria for next competition of the Designated Manager System in 2011. If the current managing companies apply in the next competition, they can receive another ten percent on the score for their proposal if they receive high evaluations for their current practices. However, this change also means that existing organizations have an advantage over other bidders if they maintain parks well, which partly undercuts the aim of the Designated Manager System to utilize the resources of a variety of private companies.

### 2-3-2. Small urban parks

Small urban parks in Japan have been built and maintained by municipal governments. In order to improve the quality of maintenance and strengthen the sense of community, cities have encouraged the residents living close to the parks to help maintain the parks. Yokohama City and Kyoto City were the first cities to introduce the system of Community Bodies for Public Parks in 1961 (Kaneko & Uchiyama, 1983). At that time, Yokohama City built many small urban parks as post-war reconstruction projects. However, because the city had to carry out a number of projects under severe financial constraints, the parks only had cheap playground equipment, which was often broken by heavy use. In addition, the city did not have enough funds or labor to maintain the parks well. As a result, residents often complained about the bad maintenance of parks. In response, the city encouraged communities to organize community groups for park maintenance by giving small amounts of financial support. In 1962, the Park and Green Space Division of the Ministry of Infrastructure published an official message that encouraged local governments to introduce this system. Today, many cities support the activities of community groups for park maintenance by providing financial incentives or by publishing guidelines for maintenance (Morimoto, 2009).

Recently, several cities have tried to develop systems of community participation in park maintenance in response to the recent socioeconomic changes such as the falling birthrate, aging population, and increasing lack of respect for rules governing public space. In Japan, the increasing number of retired people has had a great impact on community activities partly because many people rarely change their residences. In addition, when people retire in their early sixties, they often have trouble finding a

community group to join because they dedicated most of their lives for the company they worked for, which were located outside the communities. For these reasons, many cities have begun to encourage retired people to participate community activities. Because community activities for park maintenance in small urban parks often contributed to strengthening the ties among community members, cities have tried to develop the existing maintenance system.

A new policy of Kawasaki City, the Commissions of Park Maintenance, has tried to encourage communities to play broader roles in managing small parks than those of community groups for public parks (see the part of Kawasaki City in section 2-2). An official of park management division of Kawasaki City mentioned that this system was first proposed not by the park division but by one of city's district offices that has a responsibility for developing community activities. Therefore, the major objective of this new policy is to revitalize community activities by encouraging community members to participate in management of parks. In this system, the maintenance activities by the commissions supplement those by the landscaping companies the city contracts with; this means that community volunteers do not have to assume a great deal of responsibility. Another officer in the park management division stated that an advantage of the Commission of Park Maintenance was to improve the levels of maintenance because the limited budget of the city has allowed the department to prune trees in parks only once a year. He mentioned that this system would be sustainable because the total amount of financial support to the commissions was far smaller than that of the contracts for park maintenance between the city and landscape companies. An officer was concerned that some communities hesitated to join the commission system because they do not want to

have greater responsibilities nor do they want to be involved with the conflicts among park users.

In contrast with Kawasaki City, the city of Hiroshima has used the Designated Manager System to encourage community groups to have more responsibilities for small park maintenance since 2006. The primary goal of the Designated Manager System was to reduce public expenditure by utilizing the resources of private corporations (see section 2-1-2). However, cities usually do not adopt this system with small parks because the maintenance cost for each park is too small to achieve a significant reduction of public spending. Nevertheless, Hiroshima City introduced the Designated Manager System by contracting with community organizations to maintain small parks; no competition was introduced in this case.

Since 1994, Hiroshima City has developed another system that encourages community groups to maintain small parks; the city gives small amounts of financial support to community groups that undertake cleaning and mowing small urban parks. This differs from the designated manager system in that with the latter, community groups obtain larger amounts of money and have greater responsibilities through a contract with the city.

Although the city has encouraged the community groups that use the older system to become designated managers, the number making this change is still small, thirty-six organizations (forty-two parks) in 2010, compared with the number of groups which receive financial support, 626 organizations in 2009. An officer of the green policy division mentioned that one of the reasons might be that community organizations are not willing to take the responsibility for accidents that might happen in parks. Another reason

may be the lack of communication between the city and the community groups. The city contracts with all of the community groups at the same time, once every five years, and explains the outline of the Designated Manager System --including the amount of money they will receive, the required level of maintenance, and what responsibility they will take--. In addition, because the framework of the Designated Manager System was created for maintenance of large parks, community groups often fear that being a management group for small parks will become a burden for the organizations that have aging memberships.

One of the interesting points of the case of Hiroshima City is that the city has failed to significantly reduce public expenditure by adopting the Designated Manager System for small parks, although this is one of the system's stated goals. The amount paid to the community groups is less than what would be paid to professional landscaping companies. However, the relatively small number of groups that apply makes the total cost cut less significant.

Although the frameworks of the policies of Kawasaki City and Hiroshima City are different, both practices aim to improve the levels of maintenance by utilizing the resources of communities. While the practice of Kawasaki City has been to follow previous policy by maintaining responsibilities for public space upkeep, Hiroshima City has transferred the responsibilities to community organizations. For community groups, the practice of Kawasaki seems to be more acceptable than that of Hiroshima City because they do not have any responsibility for accidents occurring in parks. On the other hand, for local governments, because financial support may not be a sustainable policy under difficult financial conditions, transferring some parts of their responsibilities would



be a good reason for them to give monies for park maintenance to communities for a long period of time.

### 2-3-3. Woodlands surrounding cities

While the public sector has implemented policies to increase the preserved woodland areas, their quality is decreasing due to the lack of maintenance activities, such as tree thinning and grass cutting. Historically, these woodlands provided biomass fuel and fertilizer for nearby villages. However, as the transformation of energy sources moved from biomass to fossil fuels and the chemical fertilizers expanded, the forests became neglected.

Many cities have begun prioritizing policies that would tackle the deteriorating quality of preserved woodlands. An officer of Kamakura City stated that because the city had been so focused on preserving woodlands from development, it had not been able to allocate human and financial resources for maintaining them. The revised open space master plan of Kamakura City expresses concern about the condition of the forest and the necessity for creating a management plan. Kobe City has also proposed the creation of a new strategy for the forest management of the Rokkou Mountains as one of the three major programs to be included in its revised open space master plan.

While urban parks have been maintained largely by annual public funding, preserved woodlands, even if owned by the public sector, have received public funds mainly for disaster prevention projects. The official of Kamakura City stated that the public spending for maintenance of the preserved woodlands increased during and after the years with heavy rainfall and mudslides. In addition, while the national government

has allocated some public funds to municipal and prefectural governments for their urban parks, it has not provided the same support for maintenance of preserved woodlands.

The Rokkou Mountains are a rare example of woodlands that have received stable public funding. This is primarily because they have three different levels of management --Kobe City, Hyogo Prefecture, and the national government-- each of which has its own funding stream. However, the funding that Kobe City has received from the Forestry Agency of the Ministry of Agriculture, Forestry, and Fisheries may not be sustainable because the Ministry has been focusing on promoting the timber industry, which does not exist in this area. An officer of Kobe City complained that the Ministry had given the city only half of the subsidy it had requested to promote forest management as a means to increase carbon dioxide absorption. In both cases, the public sector has not raised funds for the maintenance of privately owned woodlands until disasters have occurred.

One of the difficulties of creating a strategy for woodland maintenance is that each stakeholder has different priorities; even public organizations have different goals for maintenance. In the case of the Rokkou Mountains, erosion control is given the highest priority by the local office of the Ministry of Land, Infrastructure, Transport, and Tourism. In contrast, the office of the Ministry of Environment thinks preservation of natural values should be ranked highest. Therefore, when the city takes an initiative to create a new strategy for woodland maintenance, it may encounter troubles with prioritizing different perspectives. The lack of data is another challenge to creating a long-term strategy. In the case of the Rokkou Mountains, public organizations have data about the conditions and maintenance activities for publicly-owned lands, yet no one knows the conditions of privately-owned forests.

Other challenges are how to enhance the citizens' interest in the quality of woodlands and educate them about the costs of maintenance. For example, an officer of Kamakura City mentioned that the main misconception among many citizens and landowners that cutting trees in the preserved woodlands should be legally prohibited, even if maintenance is the reason for cutting them. Moreover, although education is essential to increasing citizen awareness, it is difficult for local governments to raise funds for such projects. The official of Kamakura stated that although the department had had some budget for education decades ago, it were reluctant to ask for new funding.

Enhancing volunteer activities is another challenge to realizing a sustainable management system. While community activities in Kamakura played an important role in expanding the preservation movement from citywide to nationwide, they have not developed enough to organize the bodies that maintain green spaces. Today, only in the area of woodlands preserved and built as urban parks can people find well-organized volunteer activities. In these places, citizens have become involved with the planning stages of park construction. Although this practice demonstrates the possibility of volunteer activities for the maintenance on a larger scale of green space, the current practice is limited to relatively small areas.

Arranging to receive funding from multiple sources would be a strategy for reliably sustaining programs that promote citizen participation in maintaining woodlands. In Kobe City, the Kobe Forest School and Kobe Forest Elementary School, both of which aim to develop volunteers' skills for forest management, have been supported by private companies located in the city. While many local and regional governments have tried to provide opportunities for developing the skills of the volunteers, these programs often

become a soft target for reducing public expenditure during economic downturns. For example, in 2009, the Tokyo Metropolitan Government terminated the program named the Great Nature School, started in 2002, a program which provided opportunities for citizens to learn forest management skills (Tokyo Metropolitan Government, 2010). Another reason for the vulnerability of these programs may be the difficulty of proving their effectiveness quantitatively.

A stable funding stream, however, is not enough to transform volunteer activities into a major actor in woodland maintenance. The officers of both Kamakura and Kobe were concerned that the groups of volunteers were not willing to become more independent and expand the fields beyond the area the cities provided. In the case of Kobe, although the participants of Kobe Forest School organize the annual program by themselves, they hesitate to take over management of monies from city officers. He stated that because the participants were citizens who gathered under the city's initiative and not expressly green space advocates, they were interested in maintenance primarily as a leisure activity.

## 2-4. Perspectives and limits of current projects in Japan

### 2-4-1. The role of a long-term vision

Many Japanese municipal and prefectural governments do not have long-term strategies for urban parks or preserved green spaces. While most large parks have master plans and detailed plans to cover the building phase, they usually do not have any long-term strategy for maintenance. One of the major reasons for this is that cities and the

national government have been focusing on increasing green spaces quantitatively by constructing parks and buying existing green spaces.

The lack of vision for park management has many long-range consequences. First, organizations who compete in Designated Manager System often lack information about a park's true needs. For example, documents written by Nagano Prefecture about the Shinshu Sky Park stated only that it was a regional park with green spaces used as a buffer zone for an airport, and that it was built to meet the demand for various sport and recreational activities. Without details of a park's real conditions, competitors often submit bids that do not anticipate extra expenditure. Such companies are often selected because of these low bids.

Second, the lack of vision may cause indifference to the parks within the public sector. After building and opening a park, the officials of prefectural and municipal park departments remain involved only when contracting out management and making assessments of that work. Governments often then come to see parks as a burden that require annual public spending; as a result, many prefectural governments, like Nagano Prefecture, want to delegate the authority over the parks to municipal governments in order to reduce the cost for maintenance.

Having stated a vision for a park may help the park departments of prefectural or municipal governments in an important way. A clear vision for a park may make it easier to request monies from the general funds of the government. An authorized long-term management plan can provide a solid reason for requesting funding.

Unlike most prefectural and municipal governments in Japan, the Tokyo Metropolitan Government has a master management plan that covers all the parks it has

built and includes a management plan for each park. For example, the plan for the Noyamakita-Rokudouyama Park has developed goals that include improving biodiversity, cooperating with citizen and nonprofit organizations, and encouraging environmental education. As a principle for maintenance, the plan points out that grasses should be cut with different frequencies and intensities in order to create various stages of forest succession. A manager of Sayama-hill Partners, a consortium that has managed the Noyamakita-Rokudouyama Park, said that the management plan had helped them make a feasible proposal during the competition. Those who support privatization often claim that the public sector should remove potential restrictions and encourage private companies to propose even a vision for the parks. However, the manager's statement demonstrates that private companies often make solid proposals when a framework, like a long-term vision or long-term management plan, is provided.

One of the challenges the Tokyo Metropolitan Government faces is how it should renew the plans for each park after contracting out its management to private companies. An officer of the park department stated that they would need to collect opinions more broadly than before, especially from the existing management companies, because the government is no longer the organization that knows the parks best. In contrast, private management companies of Tokyo's parks are satisfied with the existing plans and do not consider taking initiative for renewing these plans.

Creating a vision will also have advantages for local governments that manage and maintain preserved woodlands. First, in the process of producing a vision, a database would be prepared. The lack of information on current conditions, such as vegetation, soil, and the frequency of the maintenance activity, often becomes a barrier to

implementing a new policy or performing maintenance activities to improve the quality of woodlands. With a database in place, these activities can be handled more efficiently.

Second, a vision created through a process open to public view will accommodate the different priorities that a variety of organizations have. For example, in the case of the Rokkou Mountains, even the public organizations, such as Kobe City, Hyogo Prefecture, and local offices of the national government have different priorities and concerns for forest management; some focus on disaster prevention, others on recreation, and yet others on the ecosystem.

Third, a vision can help development of policy regarding privately-owned woodlands. Currently, the public sector has no policy about the maintenance of private woodlands, except in cases where disasters have occurred. An officer of the Park and Green Department of Kamakura City complained that safety is generally given the highest priority, while other goals are ignored. Creating a common vision together would enable the public and private sectors to reach a consensus with multiple goals.

Fourth, the vision can become an outreach tool to citizen and businesses. Today, even Kobe City, which has received funds for two education programs from private companies, does not realize the power of the new vision they are producing to play an important role in raising funds or encouraging people to be involved. However, an open process of creating a vision would help citizens and businesses understand how much and how long it takes to maintain woodlands, as well as how important it is to raise funds from multiple sources.

#### 2-4-2. Volunteer support and community participation

The roles of volunteer support and community participation have become more and more important in all types of green spaces: large parks, small urban parks, and woodlands. In large parks, volunteer participants have helped formal management organizations improve the levels of maintenance. In small urban parks, community groups have contributed to daily park maintenance, although the range of their roles and responsibilities differs in each case. In preserved woodlands, because public funds for maintenance are too small to keep them in good condition, the volunteer activities have also played some roles in maintenance.

In Tokyo's large Noyamakita-Rokudouyama Park, the Sayama-hill Partners, a park management group consisting of four private companies, has been successful in developing volunteer activities into the next stage, where participants with different interests have joined forces to realize a common vision. One of the reasons for this success is the effort that Birth, a nonprofit organization that is a member of Sayama-hill Partners, has put into coordinating volunteer activities. One of Birth's directors mentioned that by creating a vision for the park, Birth was able to bring together groups that had formerly competed cliquishing for park usage.

The director pointed to several reasons why Birth was able to do this. First, because the organization had worked with volunteer participants before they became a member of the management group, it understood each volunteer group's priorities. Second, the organization was able to use the park management plan by the Tokyo Metropolitan Government as a "Bible" that helped them coordinate the different opinions of the participants. Third, it developed a forum that encouraged communication among participants. The director of the organization said that until Birth joined the management



of the park, some volunteers would come to the park in the morning, work for several hours without talking to each other, and then go home. Finally, support from the Tokyo Metropolitan Government to provide opportunities to learn maintenance skills has helped volunteers develop and expand their activities.

Small parks need community groups that can conduct day-to-day maintenance in order to keep the parks in good condition. When public spending for parks is limited, parks are less well maintained, vandalism occurs, and fewer people use the parks. With fewer “eyes on the street,” more vandalism may occur, which in turn can lead to higher repair and clean-up costs. Both the Commissions for Park Maintenance in Kawasaki City and the Designated Manager System for small parks in Hiroshima City expect small parks to play a greater role in revitalizing communities.

The greatest advantages of enhancing community participation may be that people will become more aware of the parks’ importance and relevance to their lives. This sense will be generated not only among those who are involved with actual maintenance activities but also among users who find community members maintaining the parks. Both the officials of Kawasaki City and Hiroshima City mentioned that one of the benefits of giving some responsibility for small park maintenance to communities was that the number of complaints about small parks has decreased.

One of the possibilities of the system of Hiroshima City is to further expand the responsibility of communities. One community group received a subsidy from the city and created a small garden to raise sweet potatoes. Due to the regulation of the Agricultural Land Law, the product of the garden, sweet potatoes, must be used non-commercially. However, by using some part of the park area as gardens, the community

members have an incentive to maintain other parts of the area because they often visit the park.

As for woodlands, volunteer activities are essential because the public sector usually has limited expenditures for their maintenance. Several cities have provided citizens with the opportunities to learn skills for maintenance, such as tree thinning and weed cutting. The primary challenge is that although the cities want volunteer participants to become more independent, i.e. organizing nonprofit organizations and executing maintenance activities, volunteers tend to feel comfortable working within the frameworks cities have provided. Second, such education programs are often not sustainable when they rely on only one funding stream, usually the general funds of municipal governments. For example, even the Tokyo Metropolitan Government, which has had consistent policies for managing green spaces, stopped providing learning opportunities about woodland maintenance in 2010. This again illustrates the importance of raising funds from multiple sources. Third, volunteers often lack the skills to work in hilly or difficult to reach areas of forests. Therefore, it is important for the public sector or those who organize volunteer activities to identify suitable areas for volunteer activities.

### 2-4-3. Funding

Stable financial resources are essential for achieving sustainable green space maintenance. In Japan, public funds, especially general funds of prefectural and municipal governments, are the only source of funding for green space maintenance. Because municipal and prefectural governments have tried to cut their expenditures in

order to regain financial sustainability, every division of public works has had trouble acquiring monies for maintenance. In large parks, prefectures have tried to decrease public expenditure by applying the Designated Manager System. In small urban parks, funding has often decreased by as much as five percent a year according to a city's policy for infrastructure maintenance. Moreover, the public sector has rarely spent monies for woodland maintenance except for when disasters occurred; their priority has primarily been to purchase lands to prevent them from development.

While private management companies may ask for sustained funding for several years, city policy may demand budget cuts that prevent this.

One way to raise funds for parks is to open new cafés, allocate vending machines, or hold fee-based events. However, the management companies often have only a limited right to profits. For example, the governments have the right of setting vending machines, which is one of the easiest ways to increase the revenue, and the revenue flows into the general funds and is not necessarily used for park management. An official of the Tokyo Metropolitan Government stated that the government would give them permission to execute the project of which profits are used for park maintenance, although they did not expect the private companies could gain a great profit.

Another way to raise funds is to seek new funding streams. For example, the management company of Shinshu Sky Park worked with the Japan Chamber of Commerce and Industry to initiate an internship project for job seekers. However, such projects are usually one-time only and do not bring in a great deal of money.

Decrease in public spending for maintenance of small urban parks has led to delay in repairing park equipment and a decrease in the frequency of maintenance activities.

Although volunteer participants can help fill the gap, they cannot conduct activities that require professional training and machines. In addition, because many of cities do not have management plan, cities do not know what the desirable level of maintenance is. As a result, cities often decide the level of maintenance only from the perspective of maintenance costs.

Preserved woodlands need new funds to achieve good maintenance because most of the public spending for their maintenance has been limited to disaster prevention. In 2009, Kamakura City responded to this need by allocating five million yen per year for a program that would build paths to enable volunteers to enter in woodlands to do maintenance work. Although the budget is too small to cover all the woodlands that need maintenance activities, this program was a first step to improve the maintenance of the woodlands beyond the minimal level needed to prevent disasters. Although this project has a great potential, the lack of a long-term vision for all woodlands remains a constraint. A new vision for the Rokkou Mountains being developed in Kobe City includes a provision for new funding streams. A staff member of the city's Park and Sabou Department stated that the new vision would help citizens to reach a consensus on the need to impose a new tax for maintaining the Rokkou Mountains.

In addition to provisioning a funding stream for new public policy, the new vision can help increase the support for other programs to maintain woodlands. For example, Kobe City has conducted two educational projects financially supported by private companies. Although these programs have been sustainable due to the continuous support by the private companies and limited capacity of the program, an interviewee of Kobe City stated that one of the challenges is to encourage the participants to conduct these

programs more independently. He claimed that if the participants and the city created a system to sell the woods they cut or the wood crafts they made, they would obtain a new financial stream that could enable these activities to be extended to other areas of the Rokkou Mountains. In addition, he complained that, so far, the financial support from the local business for the woodlands' maintenance was limited to the activities of which framework was made by the city.

The practices of green space maintenance examined in this chapter aim to respond to recent socioeconomic and political changes in Japan. These include the aging population, decreasing public revenue, decline in communications among community members, increasing volunteer participation, and increasing interests in biodiversity. These practices have had a positive impact: they have reduced the public expenditure and encouraged volunteer activities in green spaces. However, the lack of long-term vision and the constant pressure to reduce public expenditure may make the future of these practices uncertain. In the next chapter, by examining cases related to green space maintenance in the United States and United Kingdom, I will investigate practices that may help Japan to develop more sustainable maintenance options.

### 3. Models of success in the United States and United Kingdom

This chapter examines the practices in the United States and the United Kingdom according to the framework mentioned in the last chapter: long-term vision, volunteer support and community participation, and funding. The US examples cited in this chapter --Central Park Conservancy in New York City, Forest Park Forever in St Louis, and the Trustees of Reservations in Massachusetts-- are often regarded as models of best practice for green space maintenance not only in other US cities but also in other countries. Moreover, the practices undertaken by these groups may have direct application to the Japanese cases. In contrast, UK practices have incorporated privatization strategies similar to those of Japan.

#### 3-1. Background of the US and UK maintenance practices

In contrast to Japan, where the public sector has had the major responsibilities for urban parks, the responsibilities, including funding streams, are more diverse in the United States. Because so many sectors, some of which often have greater priorities than park maintenance, have competed for the general funds, it is becoming more difficult for urban parks to obtain maintenance funds. In particular, during periods when maintaining parks becomes less attractive for politicians, park advocates need to seek alternative funding sources. In *Inside City Parks*, Harnik illustrates how diverse the sources of revenue are among the park departments of different US cities (Harnik, Urban Land Institute., & Trust for Public Land (U.S.), 2000). In addition to public funds and state or federal support, most cities have monetary support from private grants and donations. Some agencies, like the Chicago park district, raise funds from dedicated taxes such as

gas tax, hotel tax, or property assessment. Large urban parks also receive monies from multiple funding streams. For example, Forest Park in St. Louis raised funds from the general funds and capital funds of the city; from lease payments, from the property taxes from its Zoo Museum District, as well as from private donations (City of St. Louis, 1995).

Many cities have tried to reduce park maintenance costs by making the maintenance program more efficient or even by converting the park to other land use. In order to maintain urban parks more inexpensively and efficiently, US cities such as Oakland and Pittsburgh have transferred the responsibility of maintenance from their park departments to public works departments (Paul, 2007). In the case of Pittsburgh, after receiving many complaints from residents, the city reorganized its workforce, enabling the park department staff to help develop recreation activities, a change which improved their reputation. However, in other cases, park maintenance by the public work departments failed to reduce maintenance costs and resulted in deteriorating park conditions.

Once parks become dilapidated, it is difficult for the city to implement a reasonable plan for improving the situation without cooperation of citizens. Detroit, which has been suffering from declining population and severe financial hardship, published a Strategic Master Plan in 2006 to maintain its existing parks and recreation centers efficiently (City of Detroit, 2006). In order to establish a sustainable system for maintenance, the plan suggested that some of the parks and recreation centers should be relocated, which means that the city would reduce the number of parks. An analysis of park conditions indicated that parks were distributed unevenly and the majority of them

were poorly maintained, using old and outdated equipment. According to the repositioning strategy in the plan, the city tried to sell 92 of their parks to developers (Zachary, 2007). The Recreation Department explained that the city could gain 8.1 million dollars from the sales and an additional 5 million dollars per year as tax revenue while reducing the maintenance cost by 540,000 dollars annually. Although the city also stated the monies from the sales should be used for improving the condition of other parks, the city government body did not agree with this proposal (Zachary, 2008). This example demonstrates how difficult it is for cities to improve the condition of urban parks after they become dilapidated.

In contrast, the practice of Miami-Dade County in Florida demonstrates the importance of making a long-term strategy before parks become devastated. The County's Park and Recreation Department published a Parks and Open Space System Master Plan with a vision for fifty years in 2007, a vision which has had a positive influence on green space policies even under financial hardship (Miami-Dade County, 2007). For example, In order to tackle a serious financial hardship in the late 2000s, the Department enacted Service Recovery Strategy in 2009. This strategy aimed to free parks from being solely dependent on public funds by expanding the use of Request for Proposals, contracting out services such as neighborhood park maintenance, and increasing fee-based programs and volunteer support for maintenance.

The United Kingdom is a country which has implemented the privatization of public service since the 1980s, a policy that had great influence on the maintenance of public spaces by local governments. In the United Kingdom, under severe financial conditions, cities experienced an intensive privatization pressure from the national



government in the 1980s and 1990s (Jones, 2000; Williams & Thwaites, 2007). The Compulsory Competitive Tendering, which started in 1988 and ended 1997, forced local governments to introduce a competitive process when governments provide services to citizens. As a result of this policy, green spaces came to be maintained more efficiently than before because the staffs were more disciplined. However, although the Compulsory Competitive Tendering system reduced costs and initiated documentation of park maintenance through its contract process, the quality of park maintenance did not always improve. Because workers were paid less under this system, vandalism in parks increased, the relationship between communities and parks deteriorated, and park work became characterized a low wage job (Jones, 2000).

The Best Value system, started in the United Kingdom in 1997, provided the broader perspectives that would help recover what was lost during the period of the Compulsory Competitive Tendering. This system takes not only price but also other key factors into consideration for competition processes in order to enhance long-term performance of public services (Scott, 2006). The new system enabled local government officers to become involved with the ongoing management process. The new system encouraged communities to be involved with the process of deciding priorities for public spending. As a result, community groups began getting involved with park maintenance actively by organizing local “friends” groups, which resulted in a significant decrease in park vandalism (Thake, 2006).

### 3-2. Long-term vision

In the United States, long-term visions for urban parks have often been created when the parks needed to be renovated after long years of neglect. A vision that has been created through intense public participation often has become a powerful driving force for public outreach and fund raising campaigns. The visibility and credibility the vision establishes helps nonprofit groups, which are concerned with the parks, determine what they can do for the park, such as raising funds and executing programs (Madden & Project for Public Spaces, 2000). The practices of the Central Park Conservancy in New York City and Forest Park Forever in St. Louis show the importance of creating long-term plans for maintaining and renovating green spaces. Initially, these master plans helped the organizations raise funds by clarifying their visions (Garvin & Brands, 2011).

Forest Park, St. Louis, demonstrates the importance of a long-term strategy in renovating and maintaining an urban parks (Fig. ffig26). While the city had been concerned about the dilapidated park since the late 1970s and published a master plan for its renovation in 1983, the actual projects for renovation did not happen until a new master plan, funded by revenue from the state sales tax for a capital improvement, was developed in 1995 through an intense public participation process (City of St. Louis, 1995; Madden & Project for Public Spaces, 2000). Jim Mann, the president and executive director of the nonprofit organization Forest Park Forever pointed out that one of the reasons for the success in raising funds and executing the renovation projects was the community support generated during the process of creating the master plan.

After finishing a hundred million dollar restoration, Forest Park Forever began pursuing ways to raise funds to maintain the park. In a *Strategic Plan 2009-2013* published in January 2009, the organization stated that it was “entering the forever phase

of our stewardship” (p. 1). In the process of creating the plan, the organization undertook a large public outreach: members of the organization interviewed community leaders, donors, and other stakeholders; the group held three planning sessions and met regularly with citizens and officials of the City of St. Louis (Forest Park Forever, 2009). The plan emphasized the importance of pursuing every possible funding stream, from the public sector to private citizens to cultural institutions. The analysis of fund raising options showed that pursuing an endowment and executing a capital campaign would be feasible methods to realize financially sustainable maintenance. One of the advantages of the plan was that the city and the organization clarified the amount of required funds for the maintenance. As the plan pointed out, the importance of informing communities of what would be needed for sustainable park maintenance, to demonstrate the amount of money required, is helpful not just to raise funds but also to encourage volunteer activities.

The state of Massachusetts provides another example. Since its foundation in 1891, the Trustees of Reservations (formally the Trustees of Public Reservations) has purchased and maintained a number of natural spaces and historic buildings throughout the state. This private nonprofit organization has close relationships with governmental organizations and owns the lands with an exemption from taxation. The Trustees have raised funds through endowments, membership contributions, bequests, and revenues from admission and other related fees. Because the Trustees have understood the importance of seeking new revenues to realize financial stability since the early days (Abbott, 1993), the organization has tried to diversify its sources of revenue; for example, the sharp increase in the number of memberships in the last two decades has greatly contributed to percentage of the income raised from the public.

The Trustees have revised their strategy several times over the years. In order to maintain the increasing areas they own, the Trustees created management plans for each site in 1942. Since then, the Trustees have often revised and developed the plans; for example, while early management plans covered day-to-day operations, plans produced in the 1960s included educational programs as well (Fagan, 2008). Before the establishment of a long-term strategy in 1988, the organization conducted land purchase and management through monthly internal meetings. The 1988 plan included proposals to build a new information center, improve educational programs, and enhance volunteer activities. In addition, the plan pointed out the need to increase membership and develop public information programs in order to expand fundraising activities (Abbott, 1993). The second strategic plan, developed in 1998 and entitled *Trustees 2000*, included not only a future land purchase policy but also a strategy for land management and public outreach, a comprehensive plan that envisages sustainable maintenance. For example, as one of four “aspirations,” the report indicated that the Trustees would “[e]ngage and sustain active participation of a broad and diverse public in the enjoyment, appreciation and stewardship of the Massachusetts landscape” (Fagan, 2008, p. 60). Since 2003, the Trustees have enshrined “education” as one of their goals by adding it to their charter.

In a ten-year strategic plan published in 2007, the organization emphasized an approach that would expand citizen involvement in its conservation and stewardship practices. Based on the recognition that the Trustees had not made the full use of their resources -- including visitors, membership and volunteers-- the plan stressed the importance of adopting various approaches for engaging people (Trustees of Reservations (Mass.), 2007). As one of four goals, the plan stated that the organization would “engage

and mobilize people and a broad range of partners to advocate and act for conservation.” The plan demonstrated an “engagement cycle,” composed of six steps which would involve people in the organization’s practices. Although the elements were not new -- their plan mentioned a website, maps, events, interpretation, tours, internships, management planning, workshops, and many other practices-- to make each element part of a larger cycle for education was effective and persuasive.

Although the major goal of the Trustees has always been to preserve and steward the natural and cultural heritage of Massachusetts, the organization has expanded its outreach to a wider public, and made its practices more sustainable by expanding the scope of long-term strategies. One perennial concern for the Trustees has been its long-time image as an exclusive group run by wealthy and privileged people (Fagan, 2008). This may be one of the reasons why the Trustees have focused on education in their strategic plan.

### 3-3. Volunteer support and community participation

In the United States, the role of volunteer or community support for maintenance of green spaces seems to have increased for several reasons. First, the financial difficulties of local governments have generated the need for additional non-paid labor for maintenance. Second, instead of focusing on receiving financial support from only wealthy people, nonprofit organizations that maintain green spaces have tried to do outreach to broader range of citizens. Finally, because green spaces have demonstrated their potential for education, job training, and food production, people can see the advantages of joining in maintenance activities of green spaces.

In addition to its innovative practice for the long-term maintenance strategy, Forest Park Forever demonstrated the importance of volunteer activities in the park. When the organization and the City of St. Louis began renovating the dilapidated park in the 1990s, many citizens were involved at all stages of the activities, from creating a master plan to fundraising. Since then, many groups have become involved. For example, in lieu of hiring a landscape company, the park engaged volunteer participants from the Floral Conservancy, Meramec Community College and Park Division Employees to complete a landscaping project in Pagoda Circle (City of St. Louis, 2001). The Floral Conservancy volunteer group continued to maintain the area and their contributions have amounted to 500,000 dollars a year. Anabeth Weil, the Forest Park manager for the St. Louis Department of Parks, Recreation, and Forestry, said that volunteer participants would have “a sense of ownership and commitment” through their maintenance activities (Carder, 2005).

The strategic plan of 2008 also highlights volunteer activities. The plan considers volunteer activities not only as a source of labor but also as a resource that would support all aspects of park maintenance. Moreover, in the plan, the word “volunteer” often appears alongside “board” and “staff”, as in “continued development and support of the organization’s board, staff and volunteers,” or “to recruit and retain the best staff and volunteers,” which means the organization considers volunteers as a major part of the park operation.

In Massachusetts, the Trustees of Reservations has focused on enhancing volunteer activities, which amounted to 58,000 hours of work with more than 1,600 participants a year (The Trustees of Reservations, 2011). In order to develop volunteer

activities further, in January 2011, the Trustees hired a professional, who had accomplished a 50 % increase of volunteer participation in other organizations, to organize their volunteer participants. The Trustees expected the professional to design and organize the volunteer programs that advance the current activities.

Maintenance activities for green spaces can provide a wide variety of opportunities, from recreation to job training. Through a green job-training program by the South East Youth Corps, teenage participants who worked on a site of the Trustees have learned not only how to use mowing machines but diverse skills including ecological treatments and environmental measurements. A coordinator of this program stated that teens who graduated from this program often went on to study subjects related to nature and environment and pursued their career in these areas (Pateakos, 2009).

This practice demonstrates the broad possibilities that a green space maintenance program can have. First, such programs can provide an opportunity to learning a variety of skills that are needed to keep the spaces in good condition, including skills related to biology, ecology, environmental measurements, agriculture, and sociology. Second, such programs can become an outreach to middle and late teens who are often regarded as a difficult-to-approach target. Moreover, these programs would help the Trustees increase the number of younger advocates for its practices, which traditionally attract the elderly and families. Third, because the participants of this program receive payment for their work, the Trustees can expect them to work more intensely than usual volunteer participants. The coordinator of the Youth Corps mentioned that the work was demanding yet the participants worked despite the large amount of rain they had experienced that summer. Finally, the fact that this project was funded by the Island

Foundation and the United Way of Greater New Bedford, Massachusetts, indicates that various organizations could be involved with the maintenance activities of green space directly or indirectly if those who are concerned have appropriate information. By announcing explicitly the possibilities of programs that can be performed in green spaces, organizations can attract a broader range of people who want to work for green spaces.

A practice in New York City has demonstrated the role of a public and private partnership in developing community and voluntary activities. Since 1995, the New York City Department of Park and Recreation and private City Park Foundation have developed a support program, named Partnership for Parks, for community or voluntary groups. Park advocates who joined the program mentioned that they were able to develop their activities after learning how to communicate with neighbors, officials of the city, and potential donors in this program. A staff member of the Partnership stated that by creating a connection between groups for parks and elected officials or the park department of the city, even in periods of economic depression, the parks would not be neglected as they were in the late of 1970s. Although the amount raised by City Park Foundation for supporting many small parks in New York City is less than the amount of money the Central Park Conservancy raised, private corporations that gave financial support to the organization placed high value on making connections with various communities (Miriam Kreinin, 2006).

The message in a leaflet of the Partnership illustrates the goal of this project: “when parks are strong, so are the neighborhood they exist” (Partnerships for Parks, 2010). In a program that Partnership for Parks supported, community groups created visions for parks through a process that included activities such as playing games, making



maps, walking, and drawing and crafting (Partnerships for Parks, 2008). Through this visioning process, a member of Green Shores NYC Steering Committee stated, participants would feel emotionally connected to the parks and think of themselves as stakeholders. These kinds of feeling may be similar to the one with those people would feel after planting trees or joining a maintenance activities in green spaces.

In the case of Hayes Park in the South End, Boston, a community organization took the initiative after the public sector terminated their support for maintaining the parks (Fig. 26, Fig.27). Hayes Park, like many other parks in Boston, became dilapidated during the 1980s when the city had financial hardship. In order to renovate the park, the neighbors organized the Friends of Hayes Park in 1987 and redesigned the park in corporation with the Boston Redevelopment Authority. Although the group received a small amount of financial support from the city, \$400 per year, that support shrank and was eventually terminated (Lisa, 2005). Today, neighbors work approximately 1,200 hours mowing and cleaning the park. The group raises more than \$100,000 per year and spends for park maintenance and support for a local youth baseball team of the South End. A staff of this group pointed out that this park played an important role in connecting neighbors by providing a space for face-to-face communication (Wiede, 2010).

The case of the Boston Southwest Corridor, a transit design project conducted from 1976 to 1986, demonstrates the relationship between community participation in the design process and maintenance of created spaces. Interviewing the architects and landscape architects who worked for the project, Crewe points out that the designers give high value to the intense citizen participation process because since its completion,

neighborhood volunteers has maintained the corridor so well, mowing and cleaning it regularly (Crewe, 2001). However, citizen participation in a design process does not always result in success, as those who have different preferences need different facilities in the park and not all users can attend the process meetings. For example, although children are major users of small parks, their voices often go unheard (Crewe, 2001).

In England, after the intense privatization of public services in the 1980s, volunteer activities have come to play an important role in managing parks and green spaces. Through community participation, it is considered that the public service should be delivered more effectively. Today, the total annual value of voluntary activities in parks and green spaces amounted to between £22 million to £28 million (CABE, 2010). Recently, more and more local governments have leased and licensed open spaces, often neglected, to communities, who maintain responsibilities for managing them; 22 parks and playgrounds were transferred in 2009 (SQW Consulting, 2009). The range of transferring responsibilities is broad: some local governments give the ownership of spaces to communities, others only responsibilities for cleaning and mowing. One of the advantages of transferring the responsibilities for open spaces is that community groups can access a variety of funding streams. For example, community groups can raise funds from endowments, concession activities, or other types of income generation events.

### 3-4. Funding

In the United States, nonprofit organizations that have worked for green spaces have raised funds in various ways. Madden et al (2000) points out six different funding streams: “government subsidies,” “private donations and contributions,” “foundation

grants,” “concessions or other earned income sources,” “in-kind contributions,” and “earned interest from investment and/or endowment.”

After its long deterioration in the 1970s, Central Park is now considered the most successful park to establish a sustainable management system (Fig.28). Historically, Central Park has performed innovative practices not only in terms of its design but also its maintenance since the opening in the mid nineteenth century. In the nineteenth century, affluent people considered park as the place where they could demonstrate what they achieved. Professionals such as Andrew Jackson Downing, a famous landscape architect of the time, also supported this idea and claimed parklands should be donated by the rich (Downing, Curtis, & Bremer, 1853). However, Frederick Law Olmsted believed that municipalities should raise funds for building the park (Cranz, 1982; Rosenzweig & Blackmar, 1992). After a long debate about who should pay for the new park, the city issued municipal bonds in order to acquire parkland, and build its infrastructure; monies from the tax imposed on the neighborhoods shared a small portion of the total spending (Scobey, 2002). Since then, many cities in the United States have built urban parks by raising funds from tax income.

During the severe financial crunch begun in the 1970s, the city cut most of its expenditures dramatically, including those for park maintenance. Because most of the funds for park maintenance came from the city’s budget at the time, many parks in the city, including Central Park, were neglected and dilapidated. In 1979, the Park Commissioner of New York City appointed Elizabeth Barlow Rogers, who had worked for Central Parks in a non-paid status since 1975, as Central Park Administrator, although she had to raise funds for her own salary (Rosenzweig & Blackmar, 1992). A master plan

for Central Park created under Roger's initiative that was published in 1985, *Rebuilding Central Park*, became a basis for the fundraising campaign conducted by a nonprofit organization established in 1980, the Central Park Conservancy. Since then, the Central Park Conservancy has played a primary role in renovating and maintaining the park, not only raising funds but also assuming responsibilities for maintenance.

The fact that Central Park is primarily surrounded by wealthy residents has had a significant influence on the success of its renovation projects. In circumstances where tax incentive have encouraged high-income people to donate to nonprofit organizations, New York City is a special place due to the huge number of wealthy people who give high value to philanthropy. Through the 1970s and 1980s, a number of new millionaires living in the city joined the membership of the boards of nonprofit organizations, a previously exclusive circle. Because wealthy people came to believe that donating to specific nonprofit organizations would demonstrate the fact that they belonged to an elite community, they were eager to provide support. (Harden, 1999). Moreover, many rich donors are pleased with the tax incentive for donation and enjoy donating in order to support causes they believe in (Ostrower, 1995).

Because Central Park is primarily located between dense, affluent neighborhoods, the Central Park Conservancy has had an easier time than other non-profit organizations in raising funds by showing potential donors that the park has contributed to their quality of life. However, the success of fundraising campaign of Central Park has had some negative influence on other nonprofit organizations. Cooke (2007) indicates that the success in fundraising of the Conservancy may make the competition for donations among non-profit organizations extreme. Moreover, Murray (2010) points out that the

conservancy has spent far more money on the southern parts of the park surrounded by the high-income neighborhoods than on the northern parts surrounded by the low-income neighborhoods.

A unique aspect of the Central Park's management is the contract between the Conservancy and the city. In 1998, the conservancy agreed on an eight-year contract with the city, a contract which ensured that the city would pay the Conservancy a certain amount according to the amount of funds that the Conservancy raised; the Conservancy would obtain one million dollars from the city when the Conservancy raised and spent five million dollars for the maintenance, and the amount of the payment by the city could extend to two million dollars according to the amount of the money the conservancy raised (Central Park Conservancy, 1998). In addition, this contract allowed the Conservancy to retain a certain portion of concession revenue beyond six million dollars, revenue which usually flows into general funds of cities. Taylor (2010) pointed out that this contract would mitigate the effect of reduction of public expenditure and that other parks did not have the same privilege.

Located in a less wealthy area of its city, Forest Park Forever in St. Louis can provide other suggestions for fundraising (Fig.29). In order to renovate the dilapidated park, the nonprofit organization Forest Park Forever reached an agreement with the City of St. Louis that the organization would raise half the total funds, while the other half would be raised by the city (City of St. Louis, 1995). The organization conducted three different projects: annual membership campaign for annual operation and maintenance costs, a capital campaign for the park renovation projects, and the Forest Park Trust campaign for current park maintenance. Each campaign undertook different activities and

events. While the membership campaign focused on park users, including individual and corporations around the park, the capital campaign targeted those who could donate greater amounts of money. The organization had two incentives for donors. First, corporate donors would receive a 50 percent of state tax they paid. Second, donors could appear to contribute to the campaign more than they actually paid because the financial support from Danforth Foundation added an additional fifty cents for every dollar the donors paid. Finally, the organization raised 69.5 million dollars by 2005, while the city raised 63 million dollars (Madden & Project for Public Spaces, 2000).

After having completed its major restoration projects, Forest Park Forever is now entering into the phase in which it can create a sustainable system of maintenance. Although the maintenance cost per acre is far smaller than that of Central Park, the public expenditure by the City of St Louis is not enough to cover entire parkland. In response to the need for more funding for maintenance in their strategic report of 2008, the Forest Park Forever made a long-term strategy. First, they tried to estimate how much they would need. (Forest Park Forever, 2009). Although it is reported that 15 million dollars of annual expected maintenance cost exceeds the current expenditure of 10 million dollars raised by both the city and the organization, this estimation would become a goal for fund raising activities. The strategy also stated that it would strengthen the partnership with the City by clarifying responsibilities for park maintenance, a similar approach to Central Park in New York. By contracting with the City, the organization will make the funding from the city stable instead of ensuring the amount of donation they collect.

In England, the national government's policy has had a significant impact on the funding stream for green spaces. During the period of Compulsory Competitive

Tendering, many local governments emphasized cost reduction rather than the quality of maintenance: the typical weightings between cost and quality were 70 to 30 in the evaluation during the competitive process. Due to the sharp decline of the public expenditure for urban parks, seeking alternative funds has become important; total spending of local governments for parks decreased £ 1.3 billion between 1980 and 2001. Since the middle the 2000s, the funds of the central government and lottery program, such as the Big Lottery Fund and Heritage Lottery Funds, have supported the projects that have built and renovated urban green spaces. One of the interesting movements is some of these funding sources required their applicants to produce a maintenance strategy in order to confirm the open space built or renovated by the funds to be maintained well. This demand came from the observation that the green spaces, renovated by public funds, often became dilapidated after several years due to bad maintenance and required restoration again.

Carmona et al (2006) pointed out that local authorities in England found it difficult to obtain alternative funds for maintaining public spaces, although they admitted by themselves that they did not devote their full efforts to this search. One of the reasons for this difficulty is that most funding streams have focused more on new developments and less on the improvement of public convenience. For example, the funds of the lottery program mentioned above are usually short-term and not available for day-to-day activities like maintenance. Besides, these funds have often been competitive to bid for. Another funding stream from private companies is payment based on a planning agreement for new development. In England, Section 106 is sometimes used to raise funds for maintenance of open spaces. Although this would be available to improve the

maintenance of open spaces created by development, it is unrealistic to impose additional payment on the private companies for improving the open spaces outside the developed site.

The US practices described in this chapter aim to establish sustainable maintenance systems of green spaces by reducing the dependence on the public funding. These practices are often initiated by the private sector, especially nonprofit organizations, partly because history has shown that the public sector often fails to maintain green spaces during times of financial hardship. In contrast, in the United Kingdom, although the privatization of public services initiated by the national government contributed to improving the efficiency of park maintenance, it has not helped establish long-term sustainable maintenance. In the next chapter, I examine the differences of backgrounds related to green space maintenance between Japan and the United States in order to clarify the barriers in transferring the models of US practices into Japanese practices.



#### 4. Applicability to the Japanese situations

The current practices of maintaining green spaces in Japan aim to establish a sustainable approach with continuous funding and labor force. However, the funding streams are usually limited to public funds, and volunteer or community activities for the maintenances are often conducted without long-term strategies. While practices in the United States and England may provide new models for Japan, cultural, social, and administrative differences among the countries will have significant influence on their implementation.

First, Japanese and American citizens have different expectation about what role government will play in park restoration and maintenance. While Japanese prefectural and municipal governments have implemented stable policies and constantly raised funds to build and maintain urban green spaces during the last half century, cities and states in the United States have experienced significant decreases in public spending. As a result, urban parks in Japan have not become as neglected as Central Park in New York City or other US parks in the late 1970s and 1980s.

In Japan, although the public spending for urban park maintenance has often been decreasing due to the financial hardship of governments and the privatization of some public services, this change has been still moderate, compared with the United States or England. The privatization of public services that happened during the 1980s and 1990s in the United Kingdom demonstrates that if the local governments focused just on the cost, the quality of maintenance soon decreased. Ironically, in England, after saving public expenditures for maintenance, the public sector came to need restoration of the dilapidated parks. In Japan, after introducing the Designated Manager System, municipal

and prefectural governments found improvement in the quality of the maintenance, especially for fee-based park facilities (Park, Green Space, and Landscape Division, 2009d). In general, Japan seems better able to rely on the public sector for maintaining green spaces. Therefore, when creating a sustainable system for green space maintenance in Japan, it is realistic and efficient to utilize the resources of the public sector, instead of heavily relying on the private sector.

The role of the private sector is another significant difference between the United States and Japan. In the United States, the private sector has been for more active in taking on responsibilities for managing parks or reserves. US citizens quickly saw the relationship between deteriorating park conditions and lack of public sector funding. Private sector groups, especially nonprofit organizations, have a history of stepping in to fill this gap. Madden (2000) categorizes what a nonprofit organization can provide for parks: fundraising; organizing volunteers; design, planning and construction of capital; marketing and public outreach; programming; advocacy; remedial maintenance; routine maintenance; and security. The Central Park Conservancy is an example of an organization that has dealt with all of these activities. Central Park provides a rare but meaningful example that demonstrates how far a private organization can establish a sustainable system for park management. First, the Central Park Conservancy has succeeded in raising funds for park renovation and maintenance from donations. Second, the Conservancy has had and renewed a multi-year contract with the New York City park department, an agreement enabling the organization to receive a certain amount of money according to the amount of money it has raised. Third, the organization has established a stable system to improve the level of maintenance by designating a person who is

responsible for the management of each area of the park. In Japan, on the other hand, the private sector involvement has focused on cost reduction, as demonstrated by the Designated Manager System. In Japan, many private corporations are not as emotionally and socially attached to the large parks they manage, and lack the vision that nonprofit and volunteer involvement may bring.

However, some private corporations in Japan have characteristics intermediate between pure private companies that pursue profit maximization and nonprofit organizations that pursue specific purposes other than profit. A manager of TOY-BOX, the consortium that manages Shinshu Sky Park, mentioned that if the consortium had not won the Designated Manager competition, the construction company he worked for would have fired him. He stated that an executive manager of the construction company would regard the TOY-BOX practice as successful if they profited just one Japanese yen. What he meant was that it was important for them to keep the number of employees because they expected the regional economy surrounding them would not return to what it once was. Although this is a practice by a private corporation, the US practices by nonprofit organizations that expand public outreach would be suggestive as ways to make their activities sustainable.

In the recent Japanese circumstance, where the public sector has had fewer public financial resources for urban parks, the issue becomes to what extent the private sector should become involved. Practices in the United States demonstrate that both public and private sectors have a role to play in raising funds. While the private sector, especially nonprofit organizations, has raised funds from citizens and businesses as donations, the public sector gathers funds from other public organizations or from taxation. In the case

of Forest Park in St. Louis, cooperation between a nonprofit organization and the city made the fundraising campaign successful. Moreover, some US cities have used sales taxes for restoration of parks, a practice Japanese cities rarely adopt. In 2009, Yokohama City introduced a new taxation to raise funds for purchasing and maintaining green spaces, but the target of this fund is not a specific park.

The differences of donation cultures between countries have also had a strong influence on the fundraising activities of nonprofit organizations. Wright (2001) illustrated the differences of philanthropic practices in the United States and the United Kingdom by highlighting four factors: "expectations of public and private sectors; attitudes towards money, income, and wealth; tax policy; and the strength of fundraising practices" (p. 406). Regarding tax policies, the changes of tax policy during the 2000s in the United Kingdom made the tax system similar to the one in the United States. Wright stated that while many in the United States were concerned that they had paid too much tax to the government, people in the United Kingdom often believed that the government should spend more money for those in need instead of relying on charity. Another significant difference is the attitudes toward philanthropy and volunteerism. Wright pointed out that many in the United States were willing to donate to the organizations whose activities they are involved with because they often place a high priority on helping people close to them. On the other hand, she mentioned that people in the United Kingdom often contributed to groups that provided services far away from them because they prefer to give financial support for those that they do not share their time with. In the United Kingdom, a recent policy that has allocated lottery money to public projects and subsidies for art and other cultural activities has led high-income people to spend less

money for donations. This trend supports the fact that people in the United Kingdom tend to make donations for groups that are not close to them.

The Japanese environment related to donation is closer to that in the United Kingdom than to the United States, although the amount of donation is far less than in the United Kingdom. For example, in Japan, a major approach for donation is collecting money by using a donation box, which is similar to the situation in the United Kingdom, where the “collecting tin” is the major method (Wright, 2001). While the Japanese and UK approaches are spontaneous, donation in the United States, where tax incentives have enabled citizens and businesses to choose the organization they would like to support, is conducted in a systematic way; many sit down and consider the organizations they donate to at the end of the year. In 2011, the administration of the Democratic Party of Japan submitted to the Diet an act that would revise the taxation policy to give an incentive to donation, although it was not clear whether this act would receive how much support from the Diet. However, although the lack of tax incentive may be the reason for the weak donation culture of Japan, the tax policy would not ensure the success of fund raising campaigns by nonprofit organizations.

Another important point is that the privately funded monies should be used for the different projects from those funded by public spending. In the case of Forest Park, while funds from public sources have been used for infrastructure restoration, renovation, and maintenance, funds from private sources were used for projects that could add to or enhance the park’s values, including aesthetic improvements such as landscaping, renovation of the Victorian Bridge, and repairing statues (City of St. Louis, 1995; Forest Park Forever, 2009). In Central Park, most of the projects in the northern part of the park

have been financed by public funds, while those in the southern part have been supported mainly by private funds (Murray, 2010). This may reflect the fact that the major donors for the Central Park Conservancy have been those who live in wealthy neighborhoods around the southern part of the park. In contrast, while Kobe City is creating a vision for the Rokkou Mountains and raising funds for maintenance from multiple sources, the city has not promoted any differentiation of roles between the public and private sectors.

In the case of Central Park, in addition to the wealthy neighborhood surrounding the park, the brilliant history of the park has contributed to the success of the Conservancy's fundraising campaigns. The success of the fundraising campaign by Forest Park Forever is also attributable in part to the history of Forest Park. The Friends of Hayes Park may have succeeded because community members have long thought of this park as a special place. An interesting similarity between the successful campaigns is that many nonprofit organizations were founded in response to the devastation a park had suffered after a long period of neglect. In terms of raising funds from donations, renovation has a strong advantage compared with maintenance because donors can see the changes generated by the contributions.

However, not all green spaces have a history like that of Central Park. In the Japanese cases, the Rokkou Mountains provide potential to allow the city to impose new taxation or collect donations from a broader range of people because the Mountains have long been an icon for the region. Noyamakita-Rokudouyama Park, which once was a devastated agricultural land in a hilly rural area of Tokyo, has gradually increased its value by developing volunteer activities for improving the environment, providing an opportunity for obtaining further support from private resources. However, in many

cases, the relationship between the organizations that maintain green spaces and their users has been passive. Therefore, it may be practical to develop existing community or voluntary participations in maintaining green spaces in order to do outreach to broader range of funding streams.

In large parks, a solution for this lack of public concern may be to select a private organization that has a motivation to pursue a long-term relationship for profit. In the case of Shinshu Sky Park of Nagano Prefecture, the management consortium composed of four local companies has led to specific motivation to improve the park. A manager from a local construction company mentioned that because he had been involved with building the park, he had high motivation to maintain it in a better condition and develop programs for its use. In addition, he stated that because the construction company he worked for was in poor financial condition due to the long-lasting decrease in demand for public works, he would be fired if the consortium lost the competition. Similarly, a manager of Noyamakita-Roukudouyama Park mentioned that because she had been involved with several volunteer activities before maintaining the park, she had a special interest in improving the volunteer activities. She also stated that when she had lectures to city officials or community activists, her direct involvement in park activities made it easier to give advice. These kinds of specific relationships are a common among many practices from large to small parks in the United States, as the cases of Central Park, Forest Park, and Hayes Park demonstrate.

Since private funding in Japan is significantly less than public funding, it is important for park management organizations to promote volunteer activities to give additional values to the parks. In the case of Noyamakita-Rokudouyama Park, a park

manager stated that the current improved conditions of the marshes, which were abandoned terraced rice fields, had only been possible with the effort of volunteer participants who had conducted a hand-weeding project for several years. She mentioned that the current amount of the contract fee enabled the organization to perform a minimal level of the maintenance. However, this clear distinction between volunteer work and work by public funds would help park management organizations not only develop their volunteer practices but also access potential funds from private streams.

In contrast to large parks that can be maintained by a variety of organizations and voluntary groups, the practices of Kawasaki City and Hiroshima City demonstrate that small urban parks could be maintained by community groups that have a strong relationship with the parks. The practice of the Partnership for Parks in New York City may become a useful example to develop the relationship between parks and communities. This joint project between the City and City Park Foundation has encouraged community groups to play a major role in maintaining small parks by learning knowledge and skills not only for landscaping or pruning trees but also for organizing volunteer programs or accessing broader funding streams. On the other hand, the practice of Hiroshima, which adopted the Designated Manager System for small urban parks, delegated only the responsibilities and required money to community groups. Because the major purpose of the Designated Manager System applied for small parks is to help strengthen the connection among community members, it is worth considering introducing a policy, like New York City's Partnership for Parks, which can encourage the system to sustain itself.



As cases in the United States indicate, public outreach and educational projects are also driving forces that can develop a sustainable maintenance system, especially for large parks and preserved woodlands. In Japan, although municipal and prefectural government or the organizations funded by the public sector have conducted some educational programs for green spaces, their programs often have had limited scope and terminated after several years of implementation. First, because the departments that are responsible for urban parks are usually linked to the department of public works, they do not have the labor or financial resources need to run ongoing educational programs. In addition, educational programs often become a soft target for reducing public expenditure when governments have financial hardships. Moreover, public sector-funded educational projects often have no relationship with the private sector green-space maintenance companies. From the US cases examined, it appears that nonprofit organizations can conduct educational programs more easily and effectively than can the public sector. The project conducted by public and private partnerships, such as Partnership for Parks in New York City, may become more sustainable because the involvement of the public sector often continues longer when it works with other agencies. The practice of the Trustees of Reservation also demonstrates the nonprofit organizations' advantage for performing these projects.

The US practices related to job trainings and youth programs, like a program organized by South East Youth Corps and conducted in the sites of the Trustees of Reservation, demonstrate another potential that green spaces have for providing opportunities for professional training, from forestry and landscaping to ecological and environmental measurements. These activities are useful not only as labor forces but also

as outreach to younger generations. In Japan, although job-training programs related to green spaces have been held in forests, their scope is often limited to the forest industry. In addition, park management organizations do not take the initiative to sustain these activities. As a result, many these programs do not have long-term influence on maintenance.

Creating a great picture –visioning-- is another useful tool for producing a sustainable system for maintaining green spaces. The cases in the United States, such as the master plans of Central Park and Forest Park produced from the 1980s to 1990s, demonstrate that a new master plan played an important role in raising funds for park restoration and doing public outreach. The new strategy created by Forest Park Forever in 2009 indicates the possibility of how a long-term strategy can create a sustainable maintenance system. Similarly, the long-term strategies of the Trustees of Reservation developed in 2007 demonstrated their commitment developing their educational programs. Although the weak culture of donation in Japan makes it difficult to expect such visions to become an immediate driving force for success in fund raising campaigns, a new vision that is created through intense public participation has a potential to improve green space maintenance.

While creating long-term strategy for maintenance is not a common practice in Japan, US cases indicate that the private sector can play a greater role. After transferring major responsibilities for maintaining large parks to private organizations by adopting the Designated Manager System, the Tokyo Metropolitan Government has been considering how to renew the management plan in accordance with the new roles of the public and private sectors. The US cases demonstrate that the major role in creating or revising the

long-term strategy is shifting from the public sector to the private sector. For example, while the master plan of Forest Park of 1995 was executed by the city of St. Louis, the long-term strategy of 2009 was initiated by Forest Park Forever. In the strategy, Forest Park Forever clarified the amount of money the park needs in cooperation with the City. In Noyamakita-Rokudouyama Park, Tokyo, because the volunteer activities played an essential role in improving the quality of the maintenance, the government should revise the existing plan in cooperation with various parties, including the public sector, existing management organizations, and especially park users and volunteers.

The vision for the Rokkou Mountains that Kobe City is currently developing has several goals: clarifying the existing condition of woodlands, reconciling the priorities of different public organizations that maintain the forest, and doing outreach in order to obtain additional financial and labor support from citizens. Practices in the United States may indicate the importance of bringing such visions to reality by initiating cooperation between private or nonprofit organizations. The strategic plan of the Trustees of Reservation outlines the need to become more pro-active in order to engage people to join its preservation projects, while the Partnership of Parks indicates that a joint program involving both private and public sectors offer possibilities for outreach. As the staff of the Kobe City admitted, the city has had little experience to seek funding streams from other than public funds. Although they are expecting to reach a consensus to impose a new taxation for maintenance of the Rokkou Mountains, it is important to expand the funding streams in order to create a sustainable system for maintenance.

## 5. Conclusion

A sustainable maintenance system for green spaces may require sustainable funding streams, labor forces, and long-term plans for maintenance activities. However, the approach to realizing these goals may differ among countries. For example, in the recent strategy of Forest Park Forever in St. Louis, the organization tried to clarify the roles of the city and the organization for park maintenance. The matrix the organization showed in the strategy is almost the same as the ones in the contract documents of the designated manager system in Japan. However, in contrast to the fact that the public sector prepared the document in Japan, in the United States, the nonprofit organization proposed to clarify the roles of both sectors.

In the case of the United States, where there is a strong culture of philanthropy supported by tax incentive and highly motivated nonprofit organizations with a clear vision for their practices, these goals are often realized through private sector resources. In Japan, where there has not been a strong culture of donations, it falls primarily to the public sector to undertake and finance park improvements and maintenance.

In contrast to building parks or purchasing preserved woodlands, maintaining these green spaces is not a one-time project but a longtime practice that needs a sustainable strategy. In Japan, where municipal and prefectural governments have focused on building new parks and preserving woodlands, establishing sustainable system for maintenance is a new idea. Both the existing practices of volunteer and community support and recent privatization of public services should contribute to a new system.

A sustainable system for maintenance needs stable funding streams. In the circumstance where governments face financial hardships, multiple funding sources should be pursued. Even in Japan, where the culture of donation is weak, it seems essential to approach private funding sources. Although it is unrealistic to expect private sector funding to flourish immediately, developing existing volunteer and community activities may eventually lead to the establishment of strong financial backing. It is important to connect the existing volunteer activities to fundraising campaigns because existing volunteer groups can become a resource for management organizations to explain the need and role of new funds, as well as the ability of the organizations.

An ideal system for maintaining green spaces in a sustainable way is the one that strengthens the relationship between spaces and users over a long period of time. Therefore, a clear, well-coordinated long-term strategy will be essential for realizing this. Diana Balmori (1993) stated that even in the circumstance where private funds become essential for parks, “[t]he responsibility for developing blueprint for a life in common must remain in the public sector, for only through a participatory process can a new, effective social contract emerge” (p. 41) Education and public outreach are thus key elements, since maintenance is not only a current but a future issue. Successful examples of the United States demonstrate that nonprofit organizations have played an active role in these areas. In Japan, to create a new relationship between the public and private sectors would be a next step to create a sustainable system for green space maintenance.

Types	Classification	Description
Basic Parks for Community Use	City Block parks	Those which are to be placed for the use of most nearby residents; their standard area is 0.25 ha per park, and each will be intended to be used by residents who live within a certain area with radius of 250m.
	Neighborhood parks	Those which are to be placed for use by residents who live in the neighborhood; one neighborhood park will be provided in each neighborhood unit. Their standard area is 2 ha per park, and each will be intended for use by residents who live within a certain catchments area with radius of 500 m.
	Community parks	Those which are to be placed for use by those who live within walking distance; their standard is 4ha or more for specific district parks (Specified community parks) in certain municipalities that are not covered in urban planning areas.
Basic Parks for City Wide Use	Comprehensive parks	Those which are to be placed for use by all residents in a city for various purposes, including rest, walking, playing and sport; their standard area range from 10 to 50 ha according to the size of the city.
	Sport parks	Those which are to be placed for use by all residents in a city mainly for athletic activities; their standard area range from 15 to 75 ha according to the size of the city.
Large Scaled Parks	Regional Parks	Those which are placed for the purpose of satisfying area-wide weekend recreation needs of residents of more than one municipality. Their standard area is at least 50 ha and their recreational facilities are placed organically.
	Recreation Cities	Areas where a variety of recreation facilities are provided mainly in a large-scale urban park; these cities aim at meeting area-wide recreation needs of residents of large cities or other cities, which are constructed in accordance with a comprehensive city plan. Total area will be 1,000 ha.
National Government Parks		Large-scaled parks established by the government for use by residents of more than one prefecture; their standard area is at least 300 ha per park; in case these parks are constructed as the government's commemorative project, they should have facilities suitable for their objectives.
Buffer Green Belts	Specific Parks	Special parks, such as scenic parks, zoos and botanical parks, historical parks, cemeteries, etc. are set up in accordance with their objectives.
	Buffer Green Belts	Green belts intended to help prevent or reduce pollutions like air contamination, noises, vibrations and bad odors, or to prevent disasters in industrial complexes, etc. They are provided at locations where areas with sources of pollution or disasters and residential or commercial areas must be separated.
	Ornamental Green Spaces	Green Space provided to maintain and improve natural environment of a city and to better urban landscape, and their standard area is at least 0.1 ha per lot; when in an established city area there are existing woods, etc., or when green belts are provided to expand green belts by planting trees for a better urban environment, the standard area is 0.05 ha or more.
	Greenways	Green belts which are mainly composed of passages with tree plantings, pedestrian ways or cycling courses. They aim to secure escape roads in an emergency case. They naturally connect parks to houses, schools, shopping centers, etc.

Note: Residential neighborhood unit = residence unit of about 1km square (surface area of 100ha) surrounded by arterial streets

Fig.1 Park types by the Ministry of Land, Infrastructure, Transport, and Tourism  
Source: [http://www.mlit.go.jp/english/2006/d\\_c\\_and\\_r\\_develop\\_bureau/index.html](http://www.mlit.go.jp/english/2006/d_c_and_r_develop_bureau/index.html)

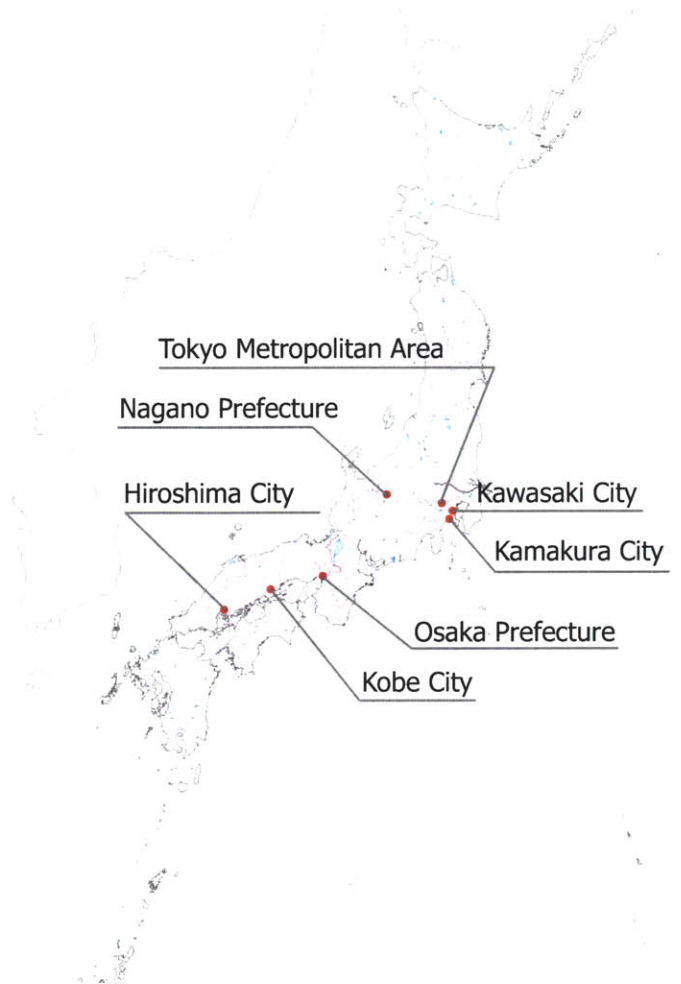


Fig.2 Sites for case studies in Japan

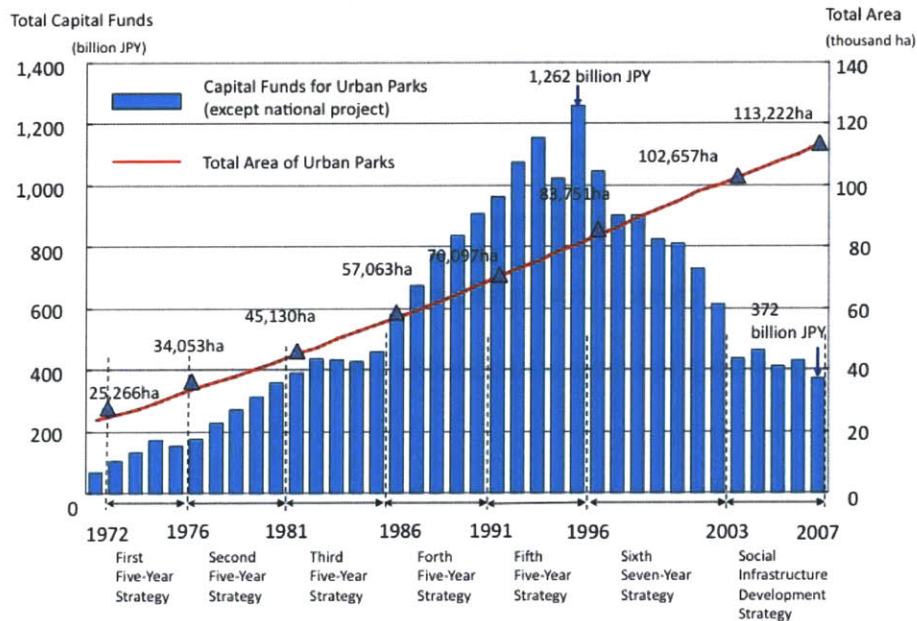


Fig.3 Total Capital Funds for Urban Parks and Total Area of Urban Parks in Japan  
Source: Ministry of Land, Infrastructure, Transport, and Tourism

Tokyo Metropolitan Government  
:Noyamakita-Rokudouyama Park

Nagano Prefecture  
:Shinshu Sky Park

Osaka Prefecture  
:Hattori Green Space

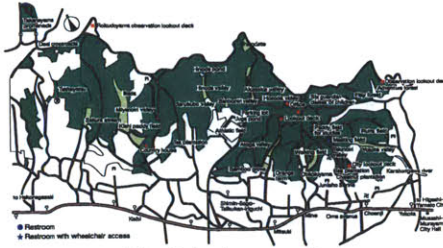


Fig.4 Noyamakita-Rokudouyama Park  
Source: [http://www.sayamaparks.com/english/noyama\\_e/images/noyamakita-rokudouyamapark.pdf](http://www.sayamaparks.com/english/noyama_e/images/noyamakita-rokudouyamapark.pdf)



Fig.5 Park vision created by volunteer participation  
Source: <http://www.sayamaparks.com/noyama/images/noyama-p.pdf>



Fig.6 Restored paddy field in Noyamakita-Rokudouyama Park



Fig.7 Country house in Noyamakita-Rokudouyama Park



Fig.8 Hattori Green Space



Fig.9 Plan of Shinshu Sky Park



Fig.10 Great Lawn in Shinshu Sky Park

Source:  
Fig.9  
<http://shinshu-skypark.net/t/guide/areamap.jpg>

Fig.10, 12, 13  
<http://shinshuskypark.blog.shinobi.jp/>



Fig.11 Main Stadium in Shinshu Sky Park



Fig.12 Runway of Shinshu Matsumoto Airport



Fig.13 Fountain in Shinshu Sky Park



Kawasaki City

Hiroshima City



Fig.14 Small urban park in Kawasaki City



Fig.15 Small urban park in Kawasaki City



Fig.16 Small urban park in Kawasaki City



Fig.17 Small urban park in Hiroshima City



Fig.18 Small urban park in Hiroshima City



Fig.19 Small urban park in Hiroshima City





Fig.20 Preserved areas in Kobe City  
Source of base photo : Google Maps



Fig.21 City Center of Kobe City from the Rokkou Mountains



Fig.22 Area maintained by volunteers in the Rokkou Mountains

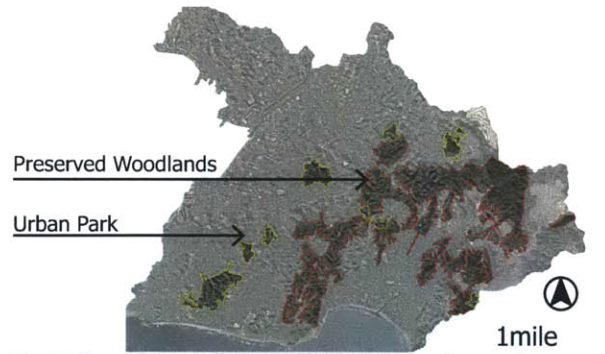
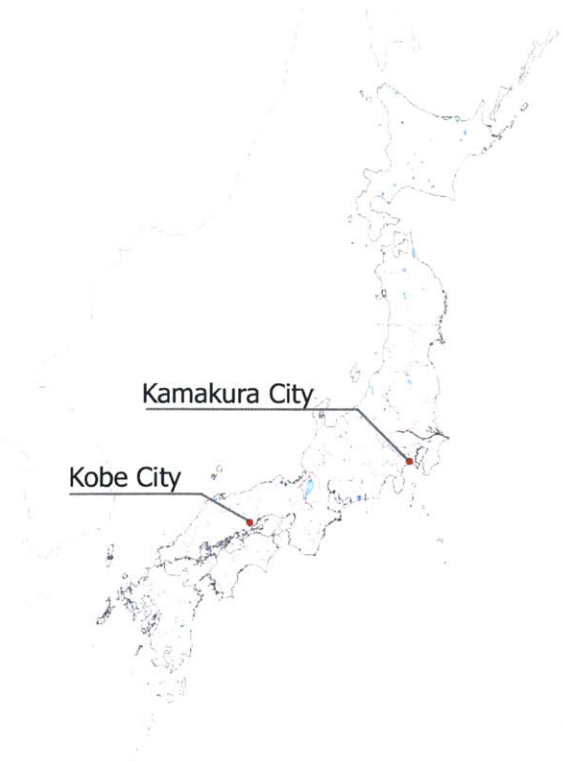


Fig.23 Preserved areas in Kamakura City  
Source of base photo: Google Maps



Fig.24 Preserved woodlands in Kamakura City



Fig.25 Residential development surrounded by preserved areas in Kamakura City



Fig.26 Hayes Park, Boston  
Source of base photo: Google Maps



Fig.27 Hayes Park, Boston

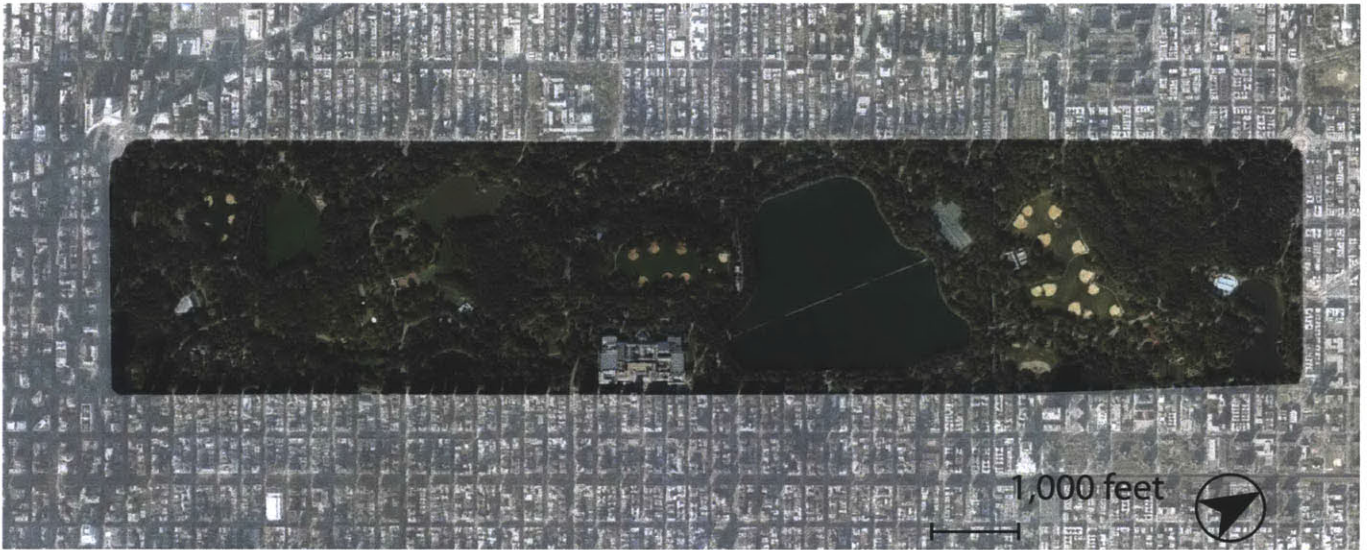


Fig.28 Central Park, New York City Source of base photo: Google Maps

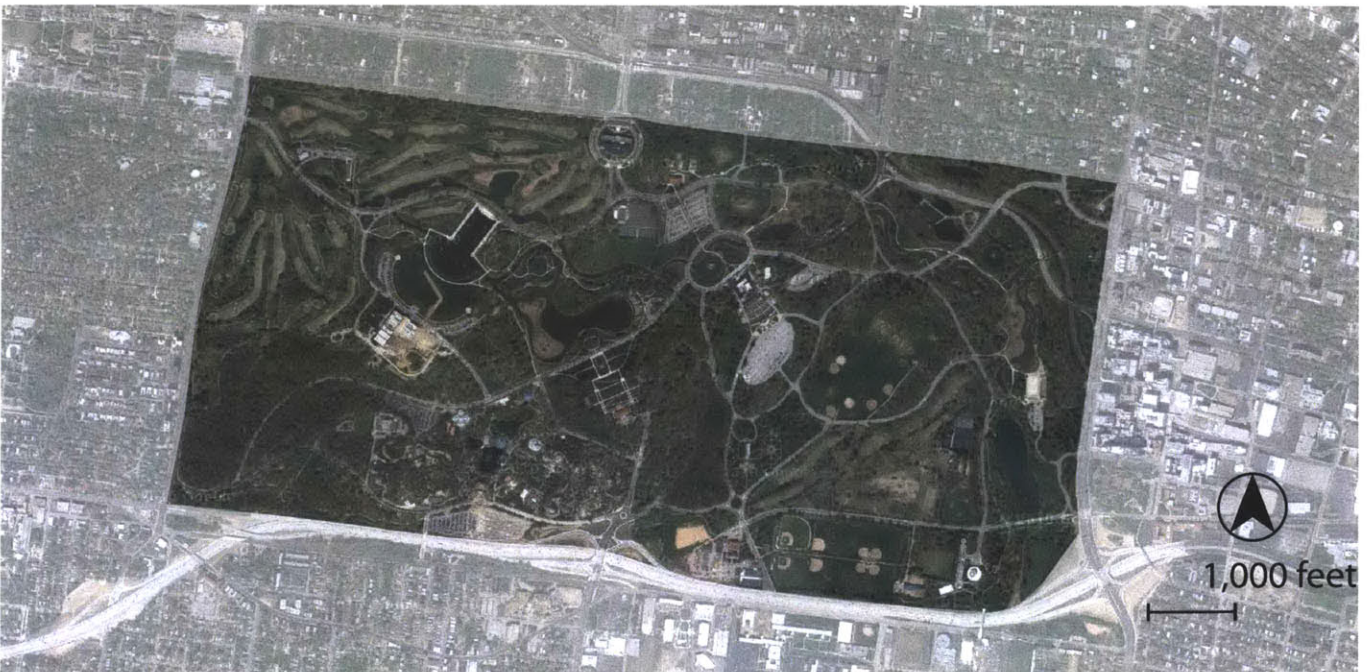


Fig.29 Forest Park, St. Louis Source of base photo: Google Maps

## List of interviews

Nagai, J. and Hayashi, H.: Green Division, Urban Design Department, City of Kamakura.

Kanayama, K., Yamamoto, Y., and Tamura, A.: Green Policy Division, Greenery  
Promotion Department, City of Hiroshima

Fujii, H.: Park Development Division, Greenery Promotion Department, City of  
Hiroshima

Takeda, K.: Group of Designated Manager for Hattori Ryokuchi

Hirabayashi, A. and Matsushima, Y.: Service Center of Shinshu Sky Park, TOY BOX.

Takakura, A. and Yamazaki, H.: City Planning Division, Nagano Prefecture.

Higashiyama, M.: Management Division, Parks and Green Space Department, Tokyo  
Metropolitan Government.

Ishitaka, Y.: Planning Division, Park and Green Space Department, Tokyo Metropolitan  
Government.

Sato, R.: NPO birth. (Seibu and Sayama-Hill Area Partners)

Hirata, S: Seibu Landscape Inc. (Seibu and Sayama-Hill Area Partners)

Takahata, M. and Sakata, M.: Forest Management Office, Park and Sabo Department,  
City of Kobe

Harada, M.: Planning Division, Park and Sabo Department, City of Kobe.

Inada, T and Watanabe, K.: Park Management Division, Green Policy Department, City  
of Kawasaki

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