

Comparative Study of Master Plan for Open Spaces in Japan and China

- A Comparison of Planning Drafts and Their Processes -

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ABSTRACT

The study made a comparison of the draft making process and implementation of open spaces in Japan and China, and pointed out the issues to be solved. In summary, we discovered that the Japanese plan emphasizes joint conduct and cooperation between residents and corporation/organizations, while the Chinese plan is characterized by its active usage of administrative lines. Regarding the policies of their plans, there are many similarities in the basic issues for both countries. The study clarified the differences in measures responding to geographical and systematic features of each country.

Key Words : Urban landscape, Japan, China, Open space

I. INTRODUCTION

As a capital that represents the country it belongs to, we can recognize that its open spaces intensively shows the idea that the country itself has for greenery. Therefore, the decisions about and development of such landscape plans can not only be limited by area oriented conditions and culture, but can also be largely influenced by the structures of the organizations that create such plan and how to proceed with it. As a result, the procedure is connected to the purpose of the plan and the basic policy.

Open spaces in big city faces complicated problems. Each country may have different solutions and wisdom about these problems. In this paper, we focused on the greenery plans for capital level big cities in each country and various processes related to the planning, making comparisons between Japan and China.

II. COMPARISON OF MASTER PLAN OF OPEN SPACES FOR TOKYO AND BEIJING

Tokyo and Beijing are the respective capitals of Japan and China. They are huge cities with populations larger than 10 million. Tokyo, a seaside type city, has a total area of 2,187km, stretching 90km east to west and 40km north to south. It has various elevations, from 2,000m mountains to sea level. Beijing, an inland city, has a total area of 16,808km. 62% of the city is mountainous. The major city area is located on its plain. This study conducted examinations of "Master Plan for Open spaces (greenery plans)" for each city and added supplementary data through hearings. The results are shown in Table 1. As shown in Table 1, the characteristics of the plans made by each city can be described as follows:

1. The Main Constituent of the Plan

Regarding the departments and bureaus with jurisdiction in both cities, the Local Planning Department of the Office of Planning and the Natural Environment Section of the Environment Division works in cooperation in Tokyo. It seems to be a system that places importance on natural environment. On the other hand, in Beijing, the Planning Administration Bureau and its subsidiary organizations work in cooperation without any organizational connection to other bureaus and departments that handle greenery projects. This shows a vertical planning system.

2. Plan Examination

The city of Beijing has a peculiar system. There is an organization to examine and evaluate the plan, separate from the main constituent organization that creates the plan. There is no particular organization as such in Tokyo. However, in Tokyo, the content became open to the public in the middle of planning, making it possible to give suggestions to the governor, conduct surveys by handing out questionnaires to metropolitan government monitors and hold open discussions with citizens on the Internet. Such feedback is supposed to be reflected in the plan, but it is not compelled to include them.

3. Contents of the Plans

1) Subject Scope

In the case of Tokyo, the scope of the subject is the entire prefecture. There are no specific plans made for the entire special district, which is in the center of the city area, or for the entire suburban area. However, the plan's basic ideas for the city, seaside, center of Tokyo, hill, mountain and island

areas are stated. On the other hand, Beijing places great importance in the "City Area" of the plan, and makes separate plans for that section and the suburban areas. In particular, the natural protection and landscape areas are independent parts of the plan.

2) Methods of Setting Targets

Both Tokyo and Beijing set out detailed plans to come out after 15 years. The big difference between them is that in Tokyo, the completion target is 50 years, a very long period for a city plan to project a future image. In the Beijing plan, there is no target year for the future projected image and it's left vague. It seems that the Beijing plan has plenty of "room" for adjustment.

3) Planning Targets

The target value is set for 15 years, with the realistic goal of increasing the current greenery rate, from 29 to 32% in Tokyo and from 32 to 40% in Beijing. Regarding the content of "greenery" in Tokyo, other than woods, grassy plains, agricultural land, parks, rivers, watercourses, lakes and ponds, landscaping of land used for different purposes, such as gardens, afforested factory land and the rooftops of facilities, are also included. In the Beijing plan, most of the target land is owned by the government and does not include private greenery. While factory landscaping is included, private gardens and greenery-covered rooftops are not.

4) Measures

There are 5 main themes for the Tokyo plan and 3 for Beijing. It's noted that both cities consider "fulfillment of an urban ecological system network" and "improvement of urban beauty" (described as "style" in Tokyo and "elegance" in Beijing) to be important parts of their plans. One of the differences

Table 1. A Comparison of Master Plans for Open spaces Between 2 Cities in Japan and China

		Japan (Tokyo)	China (Beijing)	
		Population: 12 million Area: 2,187km ² Seaside	Population: 11million Area: 16,808km ² Inland	
Main Constituent	District Department and Bureau	Local Planning Dept. of the Prefectural Planning Bureau	Beijing City Planning Administration Bureau	
		Natural Environment Dept. of the Prefectural Environment Bureau	Beijing City Planning Research Institute	
Examination of the Plan	Main Examining Organization	None. Conducts hearings with prefectural government monitors	Beijing City Capital Planning Committee	
Plan Contents	Name of the Plan	Greenery Tokyo Plan Greenery Master Plan	Beijing City Greenery Plan	
	Subject Scale	Entire prefecture Cities, towns and villages	City area (8 districts in the city center) Suburban area (2 districts and 8 prefectures at the outskirts of the city)	
	Year of Creation	2001	1995	
	Target Year	Future image - 50 years Plan details to come out in 15 years(2016)	No future image target set Plan details to come out in 15 years(by 2010)	
	Characteristics of the plan's composition	Zones separated into center of Tokyo, seaside, cities around the center of Tokyo, Tama Hills, mountains and islands	Zones separated into mountain and plain areas. Specific handling for natural protection and landscape areas	
	Future Image	City with style that is secure in greenery continuity	Flower garden city featuring cleanliness, elegance and a healthy ecological system	
	Planned target	Greenery Rate: 29% → 32% Target for park greenery: 11.9m ² /person	Greenery Rate: 32% → 40% Target for public greenery in the city area: 7m ² /person → 10m ² /person	
	Measures for the entire city	Measures for the main part of the city	An urban environment protected by greenery	Creating an ecological system centered around woods
			Environment and cities supported by greenery	Utilizing unique conditions to create an elegant environment
	Measures for the main part of the city	Measures for the main part of the city	Using greenery to increase the Charm of Tokyo	Forming a network that enriches versatile forms of greenery
			Lives based on being raised around greenery	
	Measures for the main part of the city	Measures for the main part of the city	Greenery built by the citizens of Tokyo	
23 wards in the center of Tokyo 1) Center of Tokyo: Creating open public land through redevelopment, promoting greenery on rooftops and riverside 2) Seaside: Maintaining seaside parks, preserving tideland 3) Cities around the center of Tokyo: Creating greenery to prevent disasters, maintaining a greenery axis, afforestation of land for public facilities, maintaining nearby parks, greenery-promoting activities by citizens and corporations			Plain Area 1) Maintaining greenery ecology in a "loop" shape, centered around the roads surrounding the city 2) Protecting the area from wind erosion and sand infestation 3) Maintaining woodlands parks at the outskirts of the city 4) Afforestation of roads and riversides 5) Fulfilling the network of agricultural land and woods 6) Afforestation of satellite towns and landscaping in rural areas.	
Plan Disclosure		Sales of plan documents	Distribution of brochures to related organizations, Informative pamphlets	
How the Plan is to be Implemented	Main Promotion Body	Greenery Tokyo Promotion Committee	Capital Afforestation Committee	
	Cooperation between wards, cities & towns	Holding regular meetings	Responsibility system for each administration organization	
	Cooperation with neighboring cities	Discussions at top-level meetings of the 7 surrounding prefectural governments and special department meetings for greenery policy		
	Cooperation with residents	Holding open conferences separated by policy, such as a rooftop greenery promotion conference		
	Government administration support plan	Supplying data, places for activities and equipment. Training people.	National gardener, expanding seedling parks, providing funding	
	Citizen's support plan	Self greenery activities, setting a goal of having 10,000 registered volunteers	Holding obligatory tree-planting activities	

is disaster prevention in the Tokyo plan, but this is due to the characteristics of Japanese climate, which causes heavier danger through natural calamities, such as typhoons. Beijing is located near a desert, so it places importance on the creation of an ecological system based on woods with the purpose of preventing sand penetration through tree planting and a hopeful climate improvement.

5) Measures for the Respective City Centers

In Tokyo, it seems the metropolitan government plans to form a greenery axis through the afforestation of trunk roads and the riverside areas that surround the city like a belt, and the maintenance of parks in seaside areas. The plan also calls on the government to place importance on maintaining large-scale parks that are planned to coil around this axis. In the main part of Tokyo, it is extremely difficult to acquire land. Therefore, the government emphasizes the importance of securing greenery-planting space near existing facilities, such as greenery planted on rooftops and public facilities like schools through redevelopment. In Beijing, the premise is to prevent sand expansion through afforestation, placing importance on greenery-planting in areas where wind can easily carry sand to, filling areas along the skeleton of historical metropolitan streets with greenery, and allocating an even planting of greenery throughout the city. Additionally, taking advantage of its owning national land, Beijing is trying to improve the quality of the city's ecological system by placing a wide green band along the belt line of the city and more than doubling greenery belts in the city.

4. Public Participation

Tokyo actively asked for citizens opinions by opening the plan to the public in the middle of

decision-making. Also, the document for the final plan was distributed at cost, so that anybody outside of Tokyo could see the plan. However, there is a closed-to-public plan regarding the allocation of afforestation mainly for parks called the "Greenery Master Plan of Tokyo" that was not part of the main plan. Beijing basically does not open nor sell their planning data to the public. At most, they distribute brochures that describe the outline of the plan to related organizations. To citizens, they mainly give information at exhibitions, using visual data and offering pamphlets.

5. Implementing the Plan

Tokyo is proceeding with their plan while making improvements based on their research regarding the rate of greenery. This research is held every 5 years by Greenery Tokyo Plan Promotion Committee, which is comprised of related departments and bureaus of the Tokyo metropolitan government. The committee regularly holds meetings with local governments in the prefecture to adjust the plan. With surrounding prefectures, adjustments are made under special sectional meetings that belong to top-level conferences. Also, citizen cooperation is considered to be important, so meetings discussing greenery among the general citizenry, NPO and corporations are held in cooperation with the government of the prefecture. Beijing does not have any organizations to discuss the issue with neighboring cities or residents. To implement the plan, the city rather uses the lines of its government administration. Most administrative organizations and national corporations are supplied with greenery zones and guidelines, and evaluations are made depending on the degree of completion with the afforestation plan by each administration (or corporation). Support from residents is made up

of an obligatory tree planting activity. Each related administrative organization provides a contact section for making adjustments.

III. STUDY OF LANDSCAPE PLANS IN JAPAN AND CHINA

The comparison of landscape plans in the capitals of both countries was stated above. Now, we'd like to consider some other subjects.

First, regarding the characteristics of their plan, Beijing conducts the creation and examination of their plans through separate organizations. Also, the city established a responsibility system on the progress of the guidelines to request realization of the plan in a strict manner. The plan is expected to be carry out. On the other hand, the Japanese plan was opened to the public in the middle of drafting, and put more emphasis on getting a consensus during the creation stage. However, there is no evaluation system for implementing the plan. In particular, there is nothing related to responsibility. Therefore, we can consider it to be characterized as a common guideline not only for government administrations, but also for citizens and corporations. As we can see, the characteristics of the plans are quite different.

Secondly, regarding the measures, we discovered that the details, including the concern for an ecological network and urban beauty (through the difference between "style" and "elegance"), and the formation of networks with various greenery methods are similar, although each city based their plans on their respective climates. From this, we can say that contemporary big cities have a lot of common issues to solve. Regarding the "urban beauty" that both cities are trying to achieve, Tokyo describes it as "style", saying, "A style with a sense of unity that is accumulated over the passage of time

in connection with the activities and people in the urban space." "Elegance" expressed by Beijing can develop with new methods while based on the historical space and attractive woods, delivers the appearance of the beauty specific to Beijing with a greenery style that fits international sense. From this, we learned that greenery in capitals is considered important not only in quantity, but in a level of quality suitable to big cities.

Finally, when we see how they implement their plans, we can see 2 large elements, land and budget, which are deeply related to conducting afforestation, have a big influence on the plans. Depending on how each plan was influenced, both cities decided their plans by following their social systems, which are different in each country. Basically, in Japan, the measure gave sufficient consideration to neighboring cities and residents. On the other hand, China did not need to consider land possession, and the administration implemented the plan by creating a system to do so. In both cases, it is important that these plans made maximum use of the characteristics of their own countries.

IV. CONCLUSION

This paper selected the subject of Greenery plans for capital cities and compared the concepts and processes of developing them to clarify the issues of greenery preservation and maintenance problem in cities. We also conducted research on the city of Seoul in South Korea, but found out that currently, the Urban Planning Division of the Planning Department is only examining the possibility of a "Basic Urban Scenery Management Plan" and "Urban Ecological System Preservation Plan." Also, issues like target acquisition of parks are only set in the city of Seoul's administration, and the data do not put out as an official plan.

Therefore, at this time, the study team could only compare 2 cities. When the plan of Seoul is determined, we will clarify subjects and problems related to greenery environment in cities representing Asia.

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