

Greenery planning technology targeting population decline and degenerating cities

KURIHARA Masao, Head
 SONE Naoyuki, Researcher

Landscape and Ecology Division, Research Center for Land and Construction Management

(Keywords) Population reduction, degenerating cities, compact city, greenery plan, basic greenery plan

1. Research Overview

Urban greenery provides a source for fun and relaxation, improves the heat environment through its shade, prevents the spread of fire in fire emergencies, and is an infrastructure with invaluable functions for the safety and wellbeing of urban life. Up to now, administrative policies towards parks and greenery were based on and pushed forward by the Master Plan For Parks And Open Spaces whose general notion was to "secure a green of open space inside the expanding metropolis." However, with the oncoming population decline and degeneration of cities, we must now strive to "attain a quality of living for people through the urban planning of greenery even though our society is no longer based on the premise of expansion." In other words, we are required to shift our ideas regarding our greenery plans and park policies to a much wider viewpoint (Figure 1). For example, although the functionality of a park which was maintained at the time of development becomes obsolete as a result of fluctuations in the population structure, by putting this unplanned plot of vacant land to good use, there are cases where it can become a contributing factor to the allure of a region (Photo).

At the Landscape and Ecology Division, we are conducting a "Research regarding the basic planning technology of greenery targeting cities facing population decline and degeneration (research period: 2013 to 2015)" with the above issues in mind. In the fiscal year 2014, we conducted an analysis regarding the response status towards population decline, targeting advanced

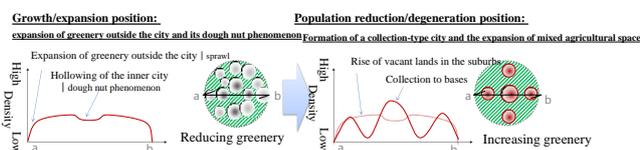


Figure 1: Image of urban degeneration and a green



Photo (left): A park whose usage has dropped
 Photo (right): A vacant lot that is used by the region for child-rearing etc.

examples of domestic master plans for parks and open spaces. As well, we set up a research society with the help of experienced academic personnel and conducted discussions regarding new roles and directions required for future master plans for parks and spaces.

2. The new role of the master plans for parks and spaces

In advanced cases, not only are the quantitative sufficiency of parks and greenery being planned, but at the same time, experiments and examinations are also starting to understand how to increase a region's allure and sustainability through the use of greenery and natural resources. In future master plans for parks and spaces, apart from the environmental protection/problem solving approaches that indicate policies evaluating a region's natural environment potential to utilize a natural plot of land, positioning and development technology will also be required for planning the utilization of greenery from the viewpoint of regional operations.

3. Future works

At the research society, ideas that were discussed included greenery and its role in solving societal problems, the improvement of sustainability through the use of natural resources and presenting new values/lifestyles through greenery management. We will continue to follow these new directions so that our examinations can help shape the master plans for parks and spaces.

Greenery utilization plan for regional management (temporary)

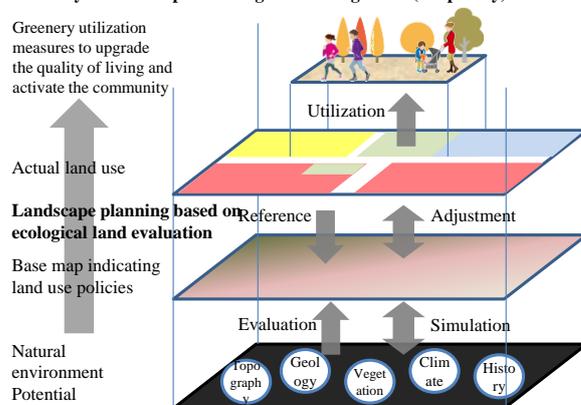


Figure 2: Image of the new role for master plans regarding greenery