

## Research Trends and Results

# Research on the method of making Green Master Plans to respond to population decline and degeneration of cities etc.

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### 1. Introduction

Green spaces and open spaces are infrastructures with essential functions to create safe and comfortable urban lives, such as providing spaces for people to play and relax, as well as improving the urban environment as a whole. Park greening measures based on the green master plan have developed a certain amount of green spaces so far.

Meanwhile, the population in Japan started to decrease after peaking in 2008. The ratio of the elderly population is expected to reach about 40% in 2050. As the population declines from the declining birthrate and the increasing ratio of the elderly population, cities are expected to maintain a balance or shrink instead of expand as they have done so far. The functions of cities are expected to be integrated. Cities are also expected to handle unused lands randomly located around integrated areas and undermanaged green areas.

The Landscape and Ecology Division conducted research on the method of making green master plans to respond to the population decline and degeneration of cities etc. (research period: 2013-2015) based on an awareness of the above problems. The Division installed a research group to explore the future of a green master plan. The group held seven sessions to discuss new roles and directions expected in the green master plan of the future with advice from experts.

### 2. Effective methods and technologies for future greening plans

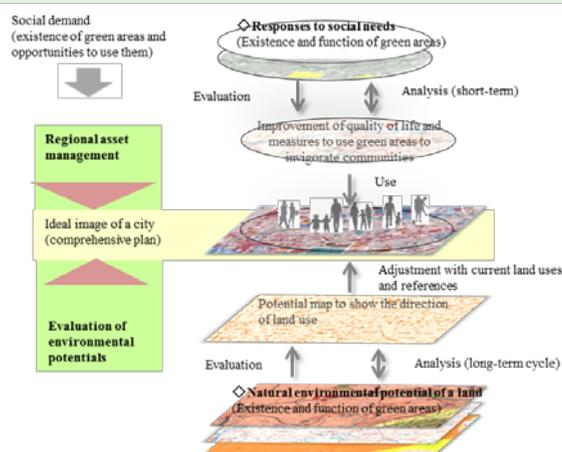
In FY 2015, effective methods and technologies for future green master plans are organized based on the focuses of the experts presented in the research group and outcomes of investigations conducted in the past.

Future green master plans need to incorporate new perspectives such as improving the attractiveness and sustainability of a region through greening and using

natural resources in addition to aiming to quantitatively increase parks and green areas. Park and green area development administrations need to be implemented with broad perspectives based on plans with these new perspectives. Effective methods and technologies to realize the above include approaches based on environmental conservation and solutions to problems to evaluate regional environmental potentials and present policies for using natural lands. Other effective methods and technologies include ones that position greening plans to effectively use green areas with the perspective of regional asset management (figure below).

#### Basic concept of greening plan for the future

Greening plans are beneficial to the future image of cities from the environmental, social, and economic perspectives by maximizing functions and effects of green areas.



Basic concept of greening plan for the future (Image)

### 3. Future plans

Outcomes of this research are organized in a reference describing roles expected in greening plans and planning methods to present knowhow and ideas of ideals of future cities, green areas, and green master plans. The reference thereby assists local governments to establish and revise green master plans. Activities and efforts are expected to

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increase the use of greens and open spaces as tools to improve regional attractiveness and sustainability.