

SUMMARY

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Problems on Planning and Improvement of “Landscape Planning Area” In Rurban Area of the Capital Region

Rurban areas in the metropolitan areas are the places where originally present pastoral landscapes. This study is to recognize rurban areas as the dwelling areas that satisfy various functions, and to clarify the conditions for application as the residential spaces. The key feature for these explorations is landscape, which is new framework for grasp of rurbanization. We consider creating indices of landscape and establishing “Landscape Planning Area” as a planning unit.

The central issue of this study is to maintain orderly regional landscapes under the natural conditions of rural area, i.e. landform and land use, when rurbanization is spreading.

The purposes of this study are as follows. First of all, we construct a framework of natural conditions and space and examine the effects of that. It is considered as a new point of view to explain features of rurban area and based on landscape.

Second, we clarify the differentiation of regional characters and problems on planning in rurban areas, grasping regional structure focussed upon rurbanization in Tokyo metropolitan area as the study area.

Third, besides municipalities and rural communities which has been used as planning unit in rurban area, we construct a planning unit which is based on a framework of landscape for improvement of rurban area. This planing unit is named “Landscape Planing Area”. In conclusion, it can be clear that problems and destinations for improvement of “Landscape Planing Area”.

Chapter 1

The chapter shows the framework of the whole study, the background, the awareness of the problems, the methods, the objective period and the review of the other studies.

These are three basic standpoints for this study.

First, “Rurbanization” is considered as phenomena of migration by newcomers who seek their residential sites in countryside. Then, a part of this pastoral area should be improved in accordance with environmental resources in the area.

Secondly, “landscape” represents the realities of physical and spatial structure of coexisting from ecological and geographical standpoint.

Thirdly, the area that contains the uniform planning problem for housing development with rurbanization defines planning area.

This study analyzes rurban area from macro level to meso level. Basically, land use and landform describe typology of region. Considering such national conditions, the analysis using indicators of regional aspects extracts regional planning problems of landscape typology, and examines the validity of planning area.

Chapter 2

In this chapter, we comprehend recent characteristic of rurbanization in Tokyo Metropolitan Area where rurbanization spreads most dynamically in Japan. For the purpose of we establish 5 types of large areas which employ index of population which unit is municipalities, through the comparison between 1980 and 1990.

About the effect of this typology, in 1990, correlation ratio to indices of population, socio-economy, and space has decreased as compared with 1980. That is to say, demographic indices show the limitation of grasping of rurbanization

As a result, we extract 3 areas on spatial structure in Tokyo Metropolitan Area.

1. DYNAMIC ZONE; which is defined as “cit ” on planning theory.
2. STATIC AREA; which is defined as traditional “rural area”.
3. STABLE MIXED ZONE; which is defined as “rurban area” on planning theory.

In this area, it is necessary to adjust city and rural (or agricultural) planning.

Chapter 3

We consider rurbanization from the view of landscape feature, though social conflicting relation in suburban community had explained it. In order to apprehend rurbanization, we constructed “Rate of pastoral-landscape” using rate of forest area and rate of farmland area, and “Landform type” which means three dimensional quality of landscape and control in opposition to housing constructions. These indices are based on national land-use digital information.

We set up the six regional types by combined two indices of landscape; they are “Mountain type”, “Countryside type”, “Upland type”, “Lowland type”, “ Upland-Lowland complex type”, and “Urban type”. And we analyze about characters of each type through geographical distribution, population, socio-economic, spatial conditions, and questionnaires and hearing about problems of regional improvement in each regional type for municipalities.

Chapter 4

This chapter is to extract "Landscape Planning Area", and to grasp and type their characters with the approach of landscape ecology. The objective area is the western part of Saitama prefecture.

We set up the three-dimensional indicators used land-use and relative height in national land use digital information and classify the areas of the homogeneous landscape. Furthermore, the relations between the indicators about population, socio-economy and space, and "Landscape Planning Area" are defined. As a result, it is grouped into six types of "Landscape Planning Area".

These "Landscape Planning Areas" cover the rural communities as micro planning units. On the other hand, they divide municipalities as comprehensive planning units. Moreover, the spatial character of countryside forms "Landscape Planning Area", and the problems on planning for each Area should arise from these characters.

The analysis extracted six types of landscape; they are "Flat-paddy field type", "Flat-mixed type", "Flat-upland field type", "Upland-upland field type", "*Hakuyuuchi* type", and "Hill land type". Each of them has the distinctive characters in the sense of social and space. These areas are different from the current planning unit, for instance, municipalities and rural communities. These extracted areas cover rural communities, distribute across the different municipalities, and in some cases, divide a municipality or a rural community to some areas of "Landscape Planning Areas". As a conclusion, the spatial characters of countryside constitute "Landscape Planning Areas" and help set problems on planning of each type of area.

Chapter 5

This chapter examines how residential locations affect the changes of landscape. We especially analyses five patterns of the above mentioned six types of "Landscape Planning Area", except for "Flat-upland field type", whose landscape has not changed.

The rurbanization in the western part of Saitama prefecture has been most drastically progressing from 1976 to 1989. The transformations of land use to building sites at level of 100m grid in each type of area explain the changes of landscape. The features of these changes are as follows.

1. The shift from flat upland fields and flat-woodlands to housing sites is remarkable.
2. The landscape is strikingly changed in the area where shows mixed land use and undulates gently.
3. The grades of undulations cause huge housing development in "Flat-mixed type" and "Hill land type".

Chapter 6

In conclusion of the whole study, this chapter shows four points discovered in the previous chapter; the influences of urbanization to landscape, the course of improvement from the viewpoint of landscape, the key points and conditions for development and institutional.

Moreover, the measures of improvement which maintain the landscape of each area is presented by the pictures of conception, the ground plans and the bird's-eye pictures.

On the forms of housing development in each "Landscape Planning Area", the conclusions follow.

1. In "Flat-paddy land type", new houses should be built inside a current residential area in settlement for newcomers who have relatives in this area. Additionally, the houses are to be detached houses and to be scattered to keep current landscape.
2. In "Flat-mixed type", the suitable development is that the number of newcomers are less than the scale of the settlement and the project is centered on the location overlapping existent settlements each other.
3. In "Upland-upland field type", changes of landscape by building houses occur so easily that the control of new housing construction on land use is necessary.
4. "Hakuyuchi type", new housing construction are allowable at the edges of existent residential area and the relatively flat parts of convex land. At the former location, a few houses for newcomers who have relatives in the area are arranged in the line of existent housing area. At the latter location, small housing development, about four to eight houses, is built surrounded by woodlands on plateau.
5. "Hill land type", new houses are to be built inside the huge existent housing settlements. Generally, the main units of such housing settlements are detached houses. However, there are little suitable locations in this area, so that promotion of medium-rise housings are required for newcomers.