

Optimizing Methodology for Assignment of Land Use Zone

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An attempt for optimum planning of land use zone is proposed in order to solve problems of uncertainty and fuzziness in land use zone system. Hierarchy discriminant system of land use zone and corresponding discriminant models are built as an object of 8 divisions of land use zone in the old city planning law and 12 divisions in the revised city planning law, which were newly established in 1992. The optimum methodology for land use zone is also developed, considering every condition, such as traffic concerned, socioeconomic and land use condition, and optimal assignment of land use zone will be obtained successfully by the use of the initial set of solution, which is given by the probability based on the score of discriminant function. The validity and usefulness of our proposed system and models for the assignment of land use zone is illustrated through the application to FUKUOKA city.

Development of an Expert System for Supporting Land-use Planning

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This paper describes the development of a prototype expert system for supporting land-use planning which operates as a sub-system in the support system for national land-use planning in Fukuoka city of Japan. The essential characteristic of this system is the reasoning ability which is repetitively done by one of all meshes over the local government area. The system allocates an appropriate land use to a mesh by inferring from the factual data and using IF-THEN rules. As a result, the system can present an alternative land-use plan in the form of the mesh-map showing the spatial distribution of the determined land uses. The knowledge is acquired from the authors' works and heuristic methods of land-use plan making. In developing the system, with the use of the mesh data, the importance is attached to the following problems: the assignment based on the trend of contiguous meshes; the improvement of time-consuming operation; the application of Analytic Hierarchy Process; and the link to external data base files.

Transportation Improvement Programming Block Units as Catalyst: Towards Livable Neighborhood in Seoul

Kwang-Hoon Lee & Jang-Won Jin

In the past 7 to 8 years, the number of motor vehicles in Seoul has increased tremendously. This has led to worsened traffic conditions in not only arterial roads but also in back roads. The search for solutions for those neighborhood blocks whose environment has been deteriorated by these conditions led the Seoul Development Institute to initiate a project called the Transportation Improvement Programming Block Units (TIPBUs) as part of the 5 year Transportation Improvement Program of the Self-Government Districts(SGDs) of Seoul. However, if this project aims only to improve the transportation conditions of these blocks, there will not only be limited results but also cause waste in funds, man power and administrative energy. Because the ultimate goal of the TIPBUs is to improve the quality of life for neighborhood residents, it should be part of the interdisciplinary work of urban planning, transportation, urban design, landscape, housing, and so on. Thus, this paper argues that the TIPBUs must be placed in its larger programmatic, administrative and financial framework for it to be an effective catalyst toward bringing about livable neighborhoods for the future.

Research on Children's Play Environment in Local City - Play Space Network in the Elementary School Area -

Agus Prabowo, Hidetusgu KOBAYASHI & Tsuyoshi SETOGUCHI

This study aims to consider how to improve the urban environment for the children's sake, by viewpoint of providing a play-space which is more closely connected to their daily-life activities. The research was carried out by analyzing the children's behavior in their outdoor play activity, especially the use-pattern of all existing playground in 4 Elementary School Area, which is equal to Neighborhood District Unit, in Sapporo city. The result shows that, there is a possibility to create a "play space network" in the Elementary School Area which will function to increase the accessibility and the use of all the existing playground in the area. The elements of this intended network are: School Ground as the center, Street Space along the popular routes as the connecting spaces, and all existing playgrounds as the bases to be connected with.

A Study on the Inhabitants' Image on Residential Districts in Built-up Area of Fukuoka City - The Analysis on Correlations between Factors of the Image and Spatial Characteristics of Districts -

Shingo NAKANO & Junzo MUNEMOTO

The purpose on this study is to analyze the effect of Spatial Characteristics in residential districts in built-up area of Fukuoka City on Inhabitants Image. Firstly the image is summarized three factors, which is 'amenity axis' , 'visual axis' and 'well-ordered axis' , secondly spatial characteristics of districts was analyzed by its four basic factors, which is geographic features, street network, land use and building types. Geographic features and street network of districts are indicators of the participation in developing residential districts by planning. Land use and building types of districts are indicators of the progress of urbanization. The correlation between three factors of the image and four factors of spatial characteristics of districts is calculated. As a result, it is cleared that "amenity axis" is related to building characteristics of districts and pattern of intersections, and "visual axis" is related to street characteristics, and "well-ordered axis" is related to patterns of intersections in districts. In addition any factors of the image have no relation with land use of districts.

Urban Design in Cities of Taiwan/ The Contexts and Possibilities

Chin-Rong Lin

The purpose of this paper is to investigate the scope of urban design in individual cities of Taiwan; including Taipei (located at the northern part of island), Taichung (located at the middle part of island) and Kaoshiung (located at the southern part of island). It also tries to point out the different approaches of urban design actions that these local cities have been taken to resolve their own urban problems by their own way. Urban design was first implemented in Taiwan in 1980, when the Taipei Municipal Government promulgated the master plan of Hsinyi district, in which a special zoning control system and district-wide urban design treatment was introduced as part of mechanism to create the new sub center of its city into an area that highlighted the attractiveness and characteristic of its new image. It was the first time that the conception of urban design was concretely and legally implemented in the contents of conventional urban planning in this country. While urban design was first enforced in Taipei, the scope of urban design practices what the city has made, therefore has become a model of urban design implementation system for some other

cities to learn. As a major city of its metropolitan region, Taichung and Kaoshiung have started adopting urban design measures within their regular urban planning and management affairs during the late 1980's. This is the main purpose of this paper to point out how the urban design became a part of contents of urban planning management in local cities of Taiwan and its development trend in the future. Several suggestions are made in this paper to improve the current urban design implementation system in Taiwan while the cities are facing urban contextual changes and new possibilities toward the 21 century, by upgrading urban design as local urban policy and incorporating citizen participation to save the quality of urban life in shaping of the physical environments. In fact, for every new change it will incur will be the new urban design opportunity that the local city government should grasp and take action for the city.

Urban Renewal Programmes for the Low-income Group in Seoul

Seong-kyu Ha

-No abstract

The Private Initiative in Low Income Housing Provisions in Korea

Woo-Suh Park

The Korean government has devised numerous measures to tackle the squatter problems, yet the government's efforts have been successful only in a limited sense; it improved the city's physical appearance through slum clearance. It is therefore subject to serious criticisms of which three are particularly significant: inconsistency in policies which often resulted in waste of resources, deprivation of individual rights of those directly affected, and equally as serious, the intolerable financial burden that relocates has to bear. Such criticisms have forced the government to change its housing policy known as the Cooperative Redevelopment Program (CRP), instead of the conventional redevelopment program. The CRP is designed to promote privately initiated housing provisions for low income households by means of establishment of a housing union in a squatter area. The union would have contracts with a construction company that would loan out financial aid for moving expenses, demolition and construction cost. The construction company would be reimbursed after completion of the construction of CRP by the union. Therefore, by adopting CRP, squatter dwellers are able to upgrade their living standards without heavy financial burden. This is the very successful ingredient of CRP. This paper attempts to analyze this cooperative redevelopment program in respect to positive and negative incentives for squatter dwellers. In doing so, it may shed some light on developing alternative actions in approaching squatter problems in the neighboring Asian and Pacific nations.

A Study of Environmental Behavior Analysis at High-rise Building Area in Taiwan

Min-Shun Wang & Hsueh-Tao Chien

During the past twenty years, Taiwan has resulted in greatly successful economic growth. At the same time, the resultant growth in population and urbanization has accelerated the degradation of the quality of the physical environment. The urban population growth and the high density growth of population/land use pattern have increased pressure in living environmental quality impact. So, we will reduce the environmental impact and hazard risk events as well as increase urban safety. The policy of achieving rational population distribution and improving the living environment of urban inhabitants is developing growth management plan. The contents of this paper include: (1) to analyze the influential area of environmental behavior; (2) to propose high urban land use densities control strategies by the growth management concept. The methodology and analysis tools of this paper are: (1) the concept of environmental behavior analysis (E.B.A); (2) the idea of growth management; (3) control strategies analysis of external

environment by "Analytic Hierarchy Process" (A.H.P) method. The purpose of this paper is to create an overall viewpoint for coordinating environmental behavior and its negative impacts with the strategy of growth management control system. It should be improve about safety and environmental quality at high-rise building area in Taiwan, especially in the middle towns development of county level.

Soft-Infrastructure for Elderly Aged Society

Akira OSHIMA

Society of near future is urged to prepare infrastructures for elderly aged people. Regional governments have constructed many kinds of facilities and have prepared various kinds of services to care them. The countermeasures require more soft-oriented system than the hard-oriented infrastructure of economic basement in last decades of development. These are named Soft-Infrastructure in this paper. This paper describes the fundamental demand of elderly aged society and the systems to satisfy the demand. The elderly aged society is defined, where the ratio of elderly ages over 15%. This paper also concerns with utilization of telecommunication and information technologies there. These social systems require more continuous expenditure to operate and maintain the activities, comparing with the hard oriented system as road, port, water supply and etc. It is only a part of activities to prepare the facilities of care center for elderly ages. To satisfy the demand of elderly ages and keep them vividly, the regional government must create systematic approach to care them, not only preparing facilities and buildings but also general Soft-Infrastructure to maintain the activities. Technologies of telecommunication and information carry on important role to create the flexible system.