

JAPANESE URBAN LAND USE POLICY: IN HISTORICAL AND COMPARATIVE PERSPECTIVES

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Introduction

Land use planning systems in Japanese urban planning have been expanded and improved in recent years — or rather have been made more complicated. If asked to “Describe all the different types of land use planning systems currently used in Japanese urban planning,” how many students majoring urban planning could possibly answer correctly?

None. Even urban planners would argue over the “correct” answer. In other words, no effort has been made in Japan to systematically approach the issue of land use planning.

This article may be the first attempt and will begin by outlining the present systems in this country and operation of land use planning systems in Tokyo as a case study. Based on these facts, the author will then propose an outline of new systems for land use planning.

Chapter 1. Present status of Japanese Urban Land Use Planning Systems

In the history of the Japanese land use planning systems, there have been three turning points in the path to the present land use planning system. The first was the complete amendment of the Urban Planning Law in 1968, the second was amendment of so-called *Shudan-kitei* (provisions for planning regulation to buildings in urban planning area) of the Building Standard Law in 1970, and the third was the 1980 amendment of the both laws introducing the district planning system.

Through these three amendments, the Japanese land use planning system became a comprehensive land use planning scheme. Changes made since then, including the ‘drastic’ 1992 amendment, have only been partial ones made for political and practical reasons without any considerations given to the theories of the land use planning scheme.

A “complete” land use planning scheme consists of three levels of planning systems: a) *Kuiki-kubun* (area demarcation), b) *Chiiki-chiku* (zoning) and c) *Chiku teki Tochi-riyo Keikaku* (district oriented land use planning). *Chiku teki Tochi-riyo Keikaku* is not a legal term, but a term conceptualized by the author. The fact that no conceptualization is done by administrators alone shows the lack of theoretical consistency in Japan’s land use planning system and the lack of its understanding on the part of practitioners and experts alike.

In the following sections the author will summarize these systems.

1. 1 Kuiki-kubun (Area demarcation) system

Article 7 of the Urban Planning Law of 1968 stipulates that *Kuiki-kubun* (area demarcation) is a system to divide metropolitan region into either *Shigaika Kuiki* (Urbanization Promotion Area: UPA) where planned urbanization is to be promoted or *Shigaika Chosei Kuiki* (Urbanization Control Area: UCA) where urbanization is to be restricted in principle. The Ministry of Construction failed to institutionalize *Hozon Chiiki* (Preservation Area) which was originally proposed as one of four areas by the sixth report of *Takuchi Shingikai* (the Council of Urban Land Problem) in 1967. Meanwhile Japan has several legalized land use planning systems for conservation of open spaces and forested areas. Those include *Koto Hozon Ho* 1966 (the Ancient Cities Preservation Law, abbreviated title), *Shutoken no Kinko-Ryokuchi Hozon Ho* 1966 (the Law concerning Preservation of Green Space in Suburban Areas of the National Capital Region) and *Toshi-Ryokuchi Hozon Ho* 1973 (the Urban Green Space Conservation Law). Preservation areas provided by those laws may be regarded as the third area of *Kuiki-kubun* (area demarcation) system, however, compared with unrealized *Hozon Chiiki* (Preservation Area) in the sixth report of the Council of Urban Land Problem, their scope is quite limited to preserve areas of great importance such as the flora in the area is endangered forest habitat et cetera. Consequently preservation areas designated by these laws are very small compared with green belts in Britain or in Korea.

1. 2 Chiiki-chiku (zoning) systems

Chiiki-chiku is a set of zoning systems. The Japanese Zoning systems consists of *Yoto-chiiki* (use zoning; the major component) and other area-level minor systems including *Kodo-chiku* (height control zoning), *Tokubetu Yoto-chiku* (special use zoning), *Boka-chiku* (fire-protection zoning), *Fuchi-chiku* (scenic areas) and *Bikan-chiku* (aesthetic areas).

Japanese use zoning system is similar to the one in the United States, although the former is the nation wide uniform system having fewer zones and the latter bases on the ordinance of each municipality.

Japanese use zoning system, which had only 4 zones until the 1970 revision of the Building Standard Law, has been detailed since and has 12 zones after the 1992 amendment of the Urban Planning Law and the Building Standard Law. In each use zone, restrictions are imposed on the use of building, building coverage ratio (*Kenpei-ritu*), floor area ratio (FAR: *Yoseki-ritu*), building height, building wall setback from lot boundary and minimum lot size. The last two regulations (setback and lot size) are listed for only to the Category 1 & 2 Exclusive Low-rise Residential Zones.

Building use regulations are listed for each zone in an annexed table to the Building Standard Law. Buildings that are ALLOWED are listed for the Category 1 & 2 Exclusive Low-rise Residential Zones and the Category 1 Exclusive Middle-to High-rise Residential Zone. Buildings that are PROHIBITED are listed for other zones. Several building coverage ratios and FARs are listed for each zone from which the most suitable figure for each area is selected when use zoning is designated or altered to the area. The building height limits include a 10-meter or 12-meter height limit applied to Category 1 & 2 Exclusive Low-rise

Residential Zones, sky exposure plane regulations and limits imposed on middle-to high-rise buildings to prevent them from blocking off sunlight to their neighbors.

In Japan the Use Zoning system is generally understood to be a system to RESTRICT free land use by land owners in the cities. This is because it has long been considered that to own land means that one has virtually limitless possibility to use that land in all aspects. In fact, since the 'new' Urban Planning Law of 1968, the Use Zoning system together with the *Kuiki-kubun* (area demarcation) system sets out to GUARANTEE land for "urban" purposes because if land is designated as an Urbanization Control Area (UCA), land use for urban purposes is, as a rule, restricted (even though there are many loopholes). In other words, the use of land for urban purposes is guaranteed by being designated as the Urbanization Promotion Area (UPA) and the use of the designated land specified by the Zoning system.

It should be noted here that the term 'urbanization' is considered equivalent to "to become built-up" in this country. Unlike in some other countries, the UPA is not further divided into BUILDING and NON-BUILDING areas. In addition, there are no non-building zones (for roads, parks, supply & treatment facilities for example) or non-urban zones (farmland, forests) among the Use Zones because the Use Zoning system is a system of the Building Standard Law that only covers buildings. For example, the use of an area for a park in the UPA requires double designation: i. e. the area first to be designated as, for example, a residential zone by the Use Zoning system and then it has to be designated as land to be used for a park. Such a contradictory process is in severe contrast with the F-Plan (*Flachennutzungsplan*) of the German land use planning system.

1.3 Chiku-teki Tochi-riyo Keikaku (district-oriented land use planning) system

Chiku-teki Tochi-riyo Keikaku (district-oriented land use planning system; DLUP), which is a term not legal nor widely used but conceptualized by the author himself, can be described as a group of supplementary land use planning systems which can be applied to rather small districts to either strengthen or mitigate regulations imposed by Zoning system. As mentioned before, the right to build on a lot (use of land for urban purposes) is legally guaranteed and characterized by the designation of UPA together with the Zoning system in this country. Therefore the land use restrictions by the District-oriented Land Use Planning system remains supplementary and are not indispensable. This can be compared with the German system where the urban use of land is not guaranteed until the detailed district plan (*Bebauungsplan*) is formulated in addition to the City wide land use plan (*Flachennutzungsplan*).

The district-oriented land use planning systems can be further divided into either control-oriented or deregulation-oriented ones. Control-oriented systems, applying severe regulations, aim to create good quality urban area under a relaxed Japanese Zoning system with loose regulations on building forms. Deregulation-oriented systems may be regarded as a kind of incentive zoning. In Japanese cities however, where land is so incredibly expensive, it is virtually impossible to create an incentive attractive enough for developers to create good quality urban areas.

The Japanese District-oriented land use planning systems can be listed up as follows. Those in parenthesis are the zone names under the Zoning system, however, according to functions they are considered to be a part of the District-oriented Land Use Planning system.

a) Control-oriented:

- * *Kenchiku-kyotei*; Building Covenant,
- * *Chiku-keikaku*; District Plan,
- * *Seisan-Ryokuchi-chiku*; Agricultural Area,
- * (*Bikan-chiku*; Aesthetic Area),
- * (*Kodo-chiku*; Height Control Area), and
- * *Kodo-riyo-chiku*; Intensive Land Use Area

b) Deregulation-oriented:

- * *Tokutei-gaiku*; Special Urban Block system,
- * *Sogo-sekkei-seido*; Unified Design system,
- * *Shigaichi-Jutaku Sogo-sekkei-seido*; Unified Design system for Urban Housing,
- * *Saikaihatu Chiku-keikaku*; Redevelopment Type District Plan,
- * *Jutakuchi Kodo-riyo Chiku-keikaku*; Residential Land Intensive Use District Plan, and
- * *Yoto-betsu Yoseki-gata Chiku-keikaku*; FAR by Use Type District Plan

Chiku-keikaku (district plan; the ordinary type DLUP) was stipulated by Article 12-4 of the Urban Planning Law in 1980. However surroundings of Japanese planning; extremely high designated FAR, high land prices, etc did not allow planners to use the system as expected and the system was often used to get rid partly of ill effects of over mitigated Zoning.

In the 1980s, many other district plans, almost all of them are deregulation types, were introduced and stipulated by Article 12-4. Among them is *Saikaihatu Chiku-keikaku* (redevelopment type district plan) which was provided by the 1988 revision of Urban Planning Law and made possible to void FAR and land use regulations by designated Use Zone and to replace more generous regulations such as higher FAR and intensive land uses.

In addition to above mentioned the Article 12-4 stipulated district plans, the author categorizes some other systems stipulated by Article 8 of the Urban Planning Law, such as *Tokutei-gaiku* (special urban blocks) system. *Seisan-ryokuchi-chiku* (agricultural districts) as District-oriented Land Use Planning systems. In addition, the author also considers the systems such as *Sogo-sekkei-seido* (unified design system), *Shigaichi-Jutaku Sogo-sekkei-seido* (unified design system for urban housing) and *Kenchiku-kyoutei* (building covenant) which are only stipulated by the Building Standard Law and have not yet been considered the land use planning systems, in the District-oriented Land Use Planning system.

Chapter 2. Land Use Planning System in Operation: A case study of Tokyo

In this chapter, the author will refer to the situation in Tokyo to demonstrate how land use planning systems are actually operated and to discuss backgrounds of land use 'problems', historical backgrounds in particular. Although Japanese land use planning systems are applied uniformly throughout the country, many of them have been established to address the land 'problems' in Tokyo.

2. 1 Area Demarcation

All attempts to create a greenbelt in Tokyo, such as the prewar Tokyo Green Area Plan of 1939, the post-war *Ryokuchi Chiiki* (Green Zoning) by the Ad-hoc Urban Planning Law of 1946, and the Kinko-chitai (Suburban Area) by the National Capital Region Development Law of 1956 failed miserably, and the urban sprawl continued on its ugly path. Although it is too late, a system to control urbanization, the Urbanization Control Area (UCA), was for first time provided by the 'new' Urban Planning Law of 1968. However, the area within Tokyo where urbanization is to be controlled or prohibited is quite limited. The entire area of the 23 wards of Tokyo is demarcated as an Urbanization Promotion Area (UPA). Of the total urban planning area of Tokyo (cities and towns included), only 25% is designated as UCA.

2. 2 Use Zoning

2. 2. 1 Use Zone designation

Roughly speaking, Tokyo's 23 wards area can be divided into three regions in terms of Use Zone designation: a) *Shogyo-kei Yoto-chiiki* (commercial type use zones) in the central business district and subcenters, b) *Jukyo-senyo-kei Yoto-chiiki* (exclusive residential type zones) in the western and southern Yamanote, and c) *Kogyo-kei Yoto-chiiki* (industrial type zones) in the eastern Shitamachi and the waterfront area.

This pattern has remained basically the same for over 100 years since 1879 when the then Governor, Masataka Kusumoto, proposed a land use prospect for Tokyo [Ishida, 1987b: 44-45] and through the first zoning plan of Tokyo which was designated in 1925 [Ishida, 1987a: 135-136].

In Tokyo, designation of use zones is now under alternating procedure according to the revision of the Urban Planning Law in 1992 in which numbers of zones increased from 8 to 12.

Concerning the detail of zoning designation in the 23 wards area of Tokyo, following points are of importance to mention.

(a) *Jukyo-chiiki* (literally means residential zone) and *Jun-Kogyo-chiiki* (light industrial zone) which are of mixed use character covered almost 35.5% of total area in 1991, and as a rule in the narrow strip zone of 20 or 30m width along arterial and auxiliary roads, zoning are mitigated as compared to the hinter area, even in the good residential area designated to *Dai-1-shu Jukyo-senyo-chiiki* (category 1 exclusive residential zone). These cases of zoning designation often causes land use conflicts.

(b) *Dai-1-shu Jukyo-senyo-chiiki* (category 1 exclusive residential zone) which is the only zone

where floor spaces for office use are restricted covered only 20.9% of the 23 wards area in 1991. The zone designated mainly in Yamanote area and very small acreages are in the central area. For examples, in Chiyoda, Chuoh, Minato and Shinjuku wards 113ha or 2% of total area are designated as the Category 1 Exclusive Residential Zone. By another words there are very weak measures or even no measure to control the location of office buildings in the most parts of the 23 wards area.

2. 2. 2 Assigned FAR

Throughout the 23 wards area of Tokyo, very high *Yoseki-ritsu* (FARs) are assigned and realized FARs are also high.

The highest is 1000% in the CBD and in the Shinjuku subcenter. Acreages of 1000% FAR area are only 114ha or 0.2% of total of 23 wards area, however to recognize such high FAR assignment have led Tokyo to inadequate intensive land use. Ratios of over 400% are assigned to 9.2% of the 23 wards area. Ratios of between 200 to 400% are assigned to 66.4% or two thirds of the 23 wards area (this covers all eastern Tokyo and the waterfront area). As a result of the 1989 reassignment of ratios, the percentage of area with a FAR below 100% has significantly decreased. This reassignment resulted in the average FAR of 251.9% for the entire ward area, a 9% increase since 1988. The highest of ward average is 560.4% in Chuoh ward.

The high FAR in Tokyo is a result of pressure from landowners and real estate developers. When the FAR system was first introduced to Tokyo in 1963 by *Yoseki-chiku seido* (FAR zoning, which was replaced with a new system and repealed in 1969 by the enforcement of 1968 Urban Planning Law), leading real estate companies and developers forced the Ministry of Construction and planning authorities to guarantee a maximum FAR of 1000% which they regarded as the 'vested' right in the CBD area. They calculated the vested right as follows. Take a corner lot in fire-proof area of commercial zone with building coverage ratio of 100% and height limit of 31 meters as an example. The building height of 31 meters is converted to 10 stories so the FAR becomes 100% times 10 to yield 1000%. For a standard lot in the urban planning area with maximum building coverage ratio of 60% and height limit of 20 meters (7 stories) would be converted to 400%. [Ishida, 1987: 255-256, 311-315; Ishida, 1992a]

2. 2. 3 Legally permitted FAR and realized FAR

The average FAR actually realized in the Tokyo's ward area is 104.6% in 1990 or 41.5% of the legally permitted FAR of 251.6%. The average realized FAR increased remarkably from 90.6% in 1983 to 104.6% in 1990.

Jusoku-ritu (literally means fill ratio or use ratio and is calculated by $[\text{realized FAR}] / [\text{designated FAR}] \times 100\%$) are differed from 91.3% of Chiyoda ward to 31.4% of Edogawa ward. Generally speaking, *Jusoku-ritu* are high in the areas where assigned FARs are higher than 700% or lower than 150%. On the other hand, areas with FARs of 200% to 400% (the majority of Tokyo. Covers about two-thirds of the 23 wards area) have *Jusoku-ritu* of less than 40%.

Nevertheless the average *Jusoku-ritu* for total acreages of building sites in the Tokyo's 23 wards area is very low as mentioned above, it is worth to mention that total floor areas in the same area already have exceeded the limit of total floor area to the transportation capacity which according to the estimation in the 1960s is 30,000ha [Town Planning Bureau, TMG., 1991].

2. 3 Other zoning system

2. 3. 1 Special Use Zoning

The special zoning is a system to supplement the content of use control imposed by the Use Zoning system. Since the Use Zoning system applied nationwide, the Special Zoning system should be devised and determined by municipalities to meet local demands. Under the present legal system, however, the types of Special Zoning system are stipulated in the Building Standard Law and their contents only are determined by local ordinances.

Two special zones for Tokyo and other large cities were added in the 1992 amendment of the Building Standard Law and the Urban Planning Law: those are *Chukoso-kai Jukyo-senyo-chiku* (zone where the middle- to top-floors of buildings should be used for residential purposes) and *Shogyo-senyo-chiku* (exclusive commercial zone). The former zone will be designated by Chiyoda and other central wards widely.

One of the oldest special zones is *Bunkyo-chiku* (educational zone). There was a case in Tokyo where citizens demanded to drive assignation houses out of surrounding area of a primary school in the commercial zone by designating the Educational Zone.

If all landowners in the area agreed with, such restrictions could be included in a building covenant. At present, most of building control measures by the Special Zoning system can be included in a district plan. There arose a obscurity of role of the Special Zoning system and the District Plan system.

2. 3. 2 Height Control Area

As a result of citizen's movement in the 1960s, the Height Control Area have been widely designated since 1963 to Tokyo's residential area to guarantee sunlight to houses infringed by neighboring high-rise building.

The Tokyo's method to assign the Height Control Area is to supplement the content of control in every zone imposed by the Use Zoning system. Consequently, the Height Control Area in Tokyo can be regarded as one of the Zoning system.

2. 4 District-oriented Land Use Planning Systems

There are two types of District-oriented Land Use Planning system (DLUPs); Control-oriented and Deregulation-oriented type. Deregulation-oriented type DLUPs, which were degenerated from the ordinary type District Plan, have been used as tools to encourage overconcentration in Tokyo by giving developers incentives and possibilities to use land more and more intensively.

2. 4. 1 Control-oriented DLUPs: Building Covenant and District Plan

Control-oriented District Land Use Planning system such as land use control measures in Building Covenant and ordinary type District Plan are used to protect the quality of

residential environment. Since a building covenant is reached to agreement mostly before developing an area, Tokyo, the 23 wards area in particular, has few cases of this agreement being reached. District plans have been concluded in 92 districts covering a total of 1,912 hectares in 1990. Among variations and ways of application of district plans in Tokyo, there are mitigating type application to use the system to get rid partly of ill effects of over relaxed restrictions by the Use Zoning.

2. 4. 2 Special Urban Block system

The Kasumigaseki Building was the first building built in an area assigned as a *Tokutei Gaiku* (special urban block). In this case, the system was operated as initially intended, i. e. to abolish the height limit of 31 meters in the selected area while imposing building coverage and FAR restrictions stricter than the ones originally assigned. But the character of the Special Urban Block system has changed since then, allowing so-called bonus FAR. For example, land owners of almost all blocks in Shinjuku subcenter area, mostly Japanese leading companies, are given additional FAR of 200% to originally assigned 1000% FAR. This means that they have gained an additional area equivalent to 20% of total land area without any expense.

As for March 1990 the number of Special Urban Blocks in Tokyo was 51, covering a total of 90 hectares.

2. 4. 3 Unified Design system

Sogo-sekkei-seido (unified design system) introduced in 1970, and *Shigaichi Jutaku Sogo-sekkei-seido* (unified design system for urban housing) introduced in 1983 are both deregulation type DLUPs popular in Tokyo. These systems can be applied to projects smaller in scale than those in the Special Urban Block system without going through complicated processes such as screening by the Local Urban Planning Council. In Tokyo there were 226 cases of the Unified Designed System in operation in 1991, of which 119 cases came under the system for urban housing.

2. 4. 4 Deregulation-oriented District Plans

Saikaihatu Chiku-keikaku (redevelopment district plan), institutionalized in 1989, is a typical deregulation-oriented DLUP. There were six cases on application as of July 1991, and the system expected to become popular.

Two other systems *Jutakuchi Kodo-riyo Chiku-keikaku* (residential area intensive land use district plan) and *Yoto-betu Yoseki-gata Chiku-keikaku* (FAR by use type district plan) are rarely used, since they offer no attractive incentives to developers in Tokyo.

Chapter 3. Problems of Japanese Land Use Planning System

In this chapter the author would like to point out briefly the problems inherent in the Japanese land use system or arising from their operations as a bases to discuss the future of the system in the following chapter.

(1) The Japanese land use planning system in prewar days had many defects but by the

repeatedly amendments of the Urban Planning Law in the past half century these defects improved one by one. However, most of the amendments remained rather partial and technical and did not reach to the improvement of the total system or concepts of land use planning except in the case of over all revision of Urban Planning Law in 1968. The land use planning provisions of the 1968 Urban Planning Law and the 1970 Building Standard Law could be regarded as a system based on the new concept of land use planning, however the concept has changed gradually by following occasional amendments and the system becomes the one complicated and without any concept.

Even in the cases of revision following after the foreign land use planning systems, legislators did not introduce the basic concept of foreign system. For example in the case of District Plan system in 1980 following after the German *Bebauungsplan* system, they could not learn from the concept of “no development without plan (*bebauungsplan*)”. *Bebauungsplan* is indispensable to or a sine qua non for urban land use, however Japanese *Chiku-keikaku* (district plan) is an optional subject to obtain a degree of urbanization.

(2) The Japanese land use planning system based, whether it is reluctantly or not, on the widely supported idea that every land owner originally have the absolute right to use their sites for urban use freely and the right should not be restricted except in the case to promote *Kokyo no Fukushi* (the welfare of the public). In other words, private land use should be restricted by the police power only in the case which cause serious results to the public.

It is understandable in this context that the first building regulations introduced in Tokyo was *Boka-rei* (a sort of fire-proof zoning) of 1881 to prevent Tokyo's big fires and that until the end of 1930s it was difficult to introduce severe regulations such as FAR to realize high quality residential environments.

(3) The Japanese land use planning legislation lacks or have failed to institutionalize a land use master plan system which could show future perspectives of urban land use.

A few municipalities tried to make up land use master plans by an expedient means such as *Shichoson Kokudo-riyo keikaku* (literary means ‘municipal national land use plan’, in fact a land use plan of municipal area based National Land Use Planning Law). We hope much for *Shichoson Toshikeikaku no Kihon-hoshin* (municipal master plan system) which was enforced by the 1992 amendment of Urban Planning Law to provide a bases of the land use master plan.

(4) Every of three land use planning levels of Japanese system, differently from the German system, has legal power to restrict urban land use and they sometimes are contradictory to each other. For example, the abuse of deregulation-oriented DLUPs often make designated zoning plans, which were decided under the city wide consideration to balances of land uses and to land use capacity for the planned infrastructures, meaningless.

(5) Zoning system and District-oriented Land Use Planning system (DLUP) both have so many subsystems, for example DLUP have eleven subsystems, five control-oriented and six deregulation-oriented, that the Japanese land use system as a whole becomes a very complicated system and has many internal contradictions.

(6) Japanese land use planning system, which have been made up as a nation wide uniform

system, often could not manage local land use problems appropriately. However, as measures to restrict land use by some land use planning subsystems, for examples *Tokubetu Yoto-chiku* (special use zoning), *Fuchi-chiku* (scenic area) and *Bikan-chiku* (aesthetic area), are to be provided in ordinances, local governments have possibilities to use these subsystems corresponding with local needs.

The Tokyo Metropolitan Government recently asked the Ministry of Construction to transfer the right to institutionalize new *Tokubetu Yoto-chiku* (special use zones) to local governments but the Ministry rejected this request and only provided new *Tokubetu Yoto Chiku* matching to the Tokyo's request by the 1992 amendment of Urban Planning Law.

(7) Among DLUPs, *Kenchiku-kyotei* (building covenant) which enforced in 1950 when prewar *Shigaichi kenchiku-butsu Ho* (urban building law) fully revised to *Kenchiku-kijun Ho* (building standard law) and restrict land use more severely than Zoning, has particularity to base on a mutual consent of community. As *Kyodo Tochi-riyo* (cooperative land use) will be one of the most important concepts for a future of Japanese land use planning system, I believe that we should attach much importance to the community's mutual consent to land use and must learn much from the experience of building covenants.

Chapter 4. Future of Japanese Land Use Policy

4. 1 The systematic reform of land use planning system

Fundamental reform of the Japanese land use planning scheme can only be accomplished by changing people's attitudes towards land and changing the concept of land ownership. This process will require many years. For the time being we can present ideas (or even outlines) of such changes, and use the partial amendments of the existing systems in the way in which they are intended. The author insists on this point because recent reform of land use planning system by the government has been extremely short-sighted. Land use planning policy which is essentially to be a long-term or a super long-term policy have been used to achieve the government's short-term policy goals — economic recovery, for example.

Changes seem to have been made in the 1992 amendment, as in the previous amendments, without considering how alternation to one system, the Zoning system for example, might affect the other systems in the entire land use planning scheme.

Concluding this paper, the author intend to propose the idea of possible future land use planning system in Japan based on a new concept of land use right i. e. the 'strata-based land use right' concept which he first proposed six years ago [Ishida, 1988].

4. 2 A new concept of land use ownership

The term "*So-betsu Tochi-riyo Ken* (strata-based land use right)" was created to divide land use possibilities, conventionally regarded to be infinite and to belong as a rule to the absolute land ownership, into several strata. The issue of how to utilize the use right for each stratum is then defined by a land use plan. More theoretically, right of land use for urban purposes is not inherent in land ownership but assigned by a strata-based land use plan.

Strata classification is based upon by the following three criteria: *Hi-shisetsu-teki Tochi-riyo Kijun* (non-facility land use criterion), *Kihon Tochi-riyo Kijun* (basic land use criterion) and *Kyoka Tochi-riyo Kijun* (permitted land use criterion). The first, non-facility land use criterion, is applied to land where buildings and non-building facilities have not been or will not be established. The second, basic land use criterion, means that the use of a certain lot does not have serious influence on the adjacent and neighboring land or create an excessive burden on urban infrastructure. It limits the “freedom to built (land use)” of land owners of each lot. The last, permitted land use criterion, designates “threshold” use of urban land, beyond which, even if used jointly and according to a certain plan, it will cause severe problems on the urban environment and a capacity of the urban infrastructure.

Using these three criteria, the conventional “infinite” land use right is conceptually divided into four strata of land use rights: *Hi-Shisetsu-teki* (non-facility), *Kihon* (basic), *kyodo-teki* (joint, communal or cooperative) and *Ko-teki Reigai-teki* (public/exceptional). The non-facility land use right refers to the right to use land for agriculture, greenery and as vacant land. The basic land use right falls above the non-facility land use criterion and below the basic land use criterion where use of individual land lot/parcel is allowed. The joint land use right falls between the basic land use criterion and the permitted land use criterion where use of individual land lot/parcel should not be allowed. The joint land use right allows only block — or district — level joint use of land according to a certain land use plan.

Public/exceptional land use right is defined as the right to use land more intensively than the permitted land use criterion. Since such land use goes beyond the threshold of urban environment and infrastructure, any such use is allowed exceptionally under the condition that adjustments to a total environmental capacity are possible and the urban infrastructures would surely be improved to meet such intensive land use. This right should belong only to the prefectures and municipalities responsible for improvement of infrastructures. In this context the land use right beyond the permitted land use criterion is termed public/exceptional.

4. 3 Outline of short-term reform of land use planning scheme

The future land use planning scheme based on the new concept that the author proposed is, in a way, “down zoning” the present system of allowing very generous land use right. Since first announced in 1988 [Ishida, 1988], this idea has had certain social impact. The Investigation Committee on Overconcentration Issues of Tokyo Metropolitan Government proposed in its report to apply some of the author’s ideas to districts where a FAR of 400% and over is assigned [Shuchu-I, 1991]. The Central City Planning Council of the Ministry of Construction also proposed a similar plan of “tentative FAR” system, although this initial plan was watered down during the process of institutionalization.

Under the immediate short-term reform in line with the concept above, three levels of land use planning systems: Area Demarcation, Zoning and District-oriented Land Use Planning system will be maintained for the time being. The systems should be improved to acquire possibility to specify detailed land use and ability to manage and operate land use changes. The outline of reform is as follows;

a) Area Demarcation System

- (1) Maintain the urbanization promotion/control area system for the time being and
- (2) add a new preservation area as a area of Area Demarcation system by unifying the Preservation Districts and the Special Preservation Districts stipulated in the Ancient Cities Preservation Law, the Law concerning Preservation of Green Space in Suburban Areas of the National Capital Region, and the Urban Green Space Conservation Law.

b) Zoning System

- (1) Area demarcated into the UPA are then divided into Use Zones. No construction should be allowed in principle in any area where a Use Zone is not assigned.
- (2) Stop further subdivision of Use Zones. The variety of Use Zones may be limited as compared with 12 zones of the present system. For example: low-rise residential, middle-to-high-rise residential, mixed-use, commercial, business, light industry, industry and special.
- (3) These zones, however, should be supplemented by two land use criteria, Basic and Permitted.

- (4) Take low-rise residential zone for example, two criteria would be as follows:

Basic land use criterion: detached and semi-detached houses or row houses with building coverage ratio of 30%, FAR of 60%, height limit of 10 meters, and minimum lot size per house of 200 square meters.

Permitted land use criterion: buildings use of which are equivalent to regulations imposed in the Category 2 Exclusive Low-rise Residential Zone under the present law with building coverage ratio of 60%, FAR of 100%, height limit of 12 meters, and minimum lot size per house of 100 square meters.

- (5) If a building on individual lot is to be built within the limit set by the Basic land use criterion then it can be constructed upon confirmation of *Kenchiku Kakunin Seido* (the building inspection system).

- (6) A construction or development beyond the Basic land use criterion but within the Permitted land use criterion will be either subject to the Detail District Plan (the new system explained in the following clause) if it is formulated in the area where a building is to be constructed, or to a planning permission if the Detailed District Plan is not formulated.

c) District-oriented Land Use Planning system

- (1) Present district-level land use planning systems will be simplified and clustered into three types: Building Covenant, Detailed District Plan, and Specified District Plan.

(2) The Building Covenant is a control-oriented system, based on voluntary agreement made among landowners, to realize better built environment by applying stricter regulations than the basic land use criterion of the area.

(3) The Detailed District Plan is deregulation-oriented system similar to the German B-plan. Its formulation is mandatory in exercising joint land use right mentioned in the preceding section. Under this plan a portion of the profit arising from the development should be used for public and social works.

- (4) The specified District Plan is another deregulation-oriented system and is applied only to

public and exceptional development. It is approved only by examining the city-wide master plan and is sometimes approved only after revising that master plan. Under this plan all development profits should be used for public and social purposes.

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