

Formation of Multi-habitat in Asian Mega-cities

— The case of Tokyo —

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1. Introduction

Uncovering the modern surface, characteristic of Asian urbanization has been described in two patterns: the intense intermixture of differing land uses, and the extensive areas of unplanned, haphazard urban development. High population densities and the intensive mixture of different land use in built up areas, combined with urban communities to form vital, lively environment. Intensity of mixed land use can be a positive force in keeping urban areas vital and interesting. Certainly the problems created by mixed land use seem far less than imagined by those advocates of so-called modern zoning.

The widely appreciated vitality and urbanity of many central city areas in Asian countries confirm that intensive and high-density mixtures of retail, office and residential uses can help to create lively urban areas. The human scale of these districts, their efficient use of space, the shops/restraints on the narrow roads and small industries among houses all contribute to some of positive aspects of Asian urbanization. As Jean Jacobs (1977) pointed out, the safe and lively urban community with multi-habitat should form a complexity of regional culture and resources, which residents keep by themselves in daily lives, beyond the assumption that modern planning should promise a functional community and form conformity in cities.

However, mixed land use (MLU) areas which had been used to typically in traditional commercial cities, has been gradually transformed to specified land zonings such as commercial, residence and industries both in a center area and in suburbs of Asian Mega-cities in the process of modern planning. Vast accumulations and built-in stocks in urban areas will become also a main issue for improvement. Rapid urban renovation forces these areas to change their functions and the

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spatial structure. They tend to cause disorders and confusions to communities for either good or ill. Simultaneously establishing a welfare and recycle system may become soon an urgent issue in the Mega-cities, since the coming edging-society have brought serious problems to be solved in developed countries.

In a broad sense, the concept of sustainable multi-habitat should be pursued to make a complex model of community, integrating all the physical changes occurred in urban areas, on an assumption that urban habitation is closely associated with each other relationship. "Multi-habitat" means tentatively a certain environment which is plugged in a spatial mixed land use (MLU) physically, and accompanied with diversified living styles of residents.

Multi-habitat in communities, though it may be easily found in inner cities, would be a key concept for realizing a sustainable living environment. It has a possibility to absorb a development impact in its capacity, because resident's incentive and process-oriented ways of living are found in the communities.

Actually congested multi-habitat has such environmental problems as narrow lots, inadequate access to roads and complicated ownerships, which has caused dilapidations of houses to transfer youth outside leaving aged. Consequently activities of community may decline in these chained reactions.

The Japanese case is interesting because it is revealing of some of the planning dilemmas particular to an Asian country experiencing urban growth. It seems clear that the Japanese experience will hold many lessons, both positive and negative, above urbanization and urban planning issues in Asian context. The fact that Japan has been the first to undergo the transformation from rapid urban industrial growth to a post-industrial information and consumer society suggest that the case should be carefully examined.

2. Latest Urban Development in Tokyo – Implementing "Machizukuri"

Since Japanese have conceived of their planning experience in relation to Western models, their city planning system basically copied from these has produced different outcomes in both urban forms and policies. At a glance, Japanese cities display a mix of similarities with, and differences from cities in developed countries. However, uncovering these similar levels of the surface, the built-up intermixture of differing land uses, and the extensive areas of unplanned urban development are pointed out as characteristic of Japanese urbanization. While the area of planned

development has increased dramatically, sprawl with inadequate public services continues to be the dominant form of urban growth because of rather loose control of land use.

Sorensen (2004) draws attention to five futures of Japanese urbanization: a) the consistent focus of state resources on economic development, b) the weak relationship of planning and civil society, c) the dominance of central government, d) the consistent preference for public building projects over regulation of private development activity, and d) the long tradition of self-reliance of urban neighbourhoods. He also emphasizes that one of the most distinctive factors influencing the development of urban planning in Japan has been the weak role of civil society in the formation of city planning policy and practice or in creating images of the good urban life.

In Japan, city planning has been imposed to further national development goals rather than in response to people's needs, and subject to local control. Overwhelming dominance of central government inhibited the development of planning expertise at local level and prevented the development of alternative approaches to planning issues for quality of life.

However the situation seems to be changing rapidly in recent years. It is significant that local citizen-initiated environmental improvement efforts have been credited on playing a central role in the recent rebirth of Japanese civil society.

A wide movement of citizen participation practices has become popular under umbrella designation "machizukuri" which is generally translated as "town-making" or "community development" with a wide range of varied city planning techniques in Japan. That incremental improvement approach of projects controlled by local residents gradually became the accepted practice for improving their environment during the 1990's.

Currently, making machizukuri ordinances has been a trend for most of local administrations as the City Planning Law has been revised to allow people's participation officially and devolve planning authority to local government, although most machizukuri ordinances made through overcoming bureaucratic systems are still defensive in nature, have little legal power to back their decision and require high degree of public participation to be effective.

3. MLU areas in Tokyo Metropolitan

Urban areas in Tokyo Metropolitan have spread over more than 40km in dimensions, from the business center to residential areas largely consisted of low-rise housing.

In the early post-war stage, the rapid concentration of populations and industries had resulted in a disordered land use which caused congestions, environmental pollutions, and shadow obstacles of sunshine.

The concentration of the capital and the expansion of population have made Tokyo Metropolitan face environmental issues as followings.

- a) Central area has been converted into the commercial and business land use that has turned out familiar shops, small industries and housings.
- b) Homogeneous residential areas have been expanded in suburbs along with a long distance commuting, a shortage of welfare facilities and a lack of cultural environment.
- c) Redevelopments in coastal areas have been implementing to build high-rise offices and housings.
- d) Increasing rate of edging population has revealed a shortage of welfare facilities.

Located between the central area and the residential suburbs, the most of inner areas of MLU have been left without changes, since the demand for redevelopments has presented in these areas and parts of them had already occupied by high-height housings for mainly high-income class.

MLU areas have been shown usually as a density-inhabited built-up area, where conditions of physical environment are not so much as on a recommended level. Residents living in rather a shabby environment, have organized committees for social activities, and human relationships among residents have kept on well for they have lived in long time. These areas are so-called inner-city areas, which has been defined by western sociologists as the transition zone (Burgess 1935) where socio-economic and environmental problems are pointed out intensively and destined to be changed to specific land use areas by implementing development. However, looking in Tokyo, these areas seem to be different from the ones of the western cities because many of the residents have jobs in diversified workplaces adjacent to their home, and some autonomous social systems are carried out in the areas, which tendencies are same as of the Asian Mega-cities.

4. Implementing the District Plan for Machizukuri

4-1. Outline of the District Plan

The District Plan system was passed into law as major amendments to both the City Planning and Building Standards Laws in 1980. It has become one of effective and statutory tools for implementing machizukuri. These methods, while diverse, are developed as the most important broad-based movement in support of strengthened local planning. The participatory machizukuri in which forming of MLU is intended has been often implemented on the District Plan system.

The characteristic of District Plans are pointed out below.

- a) To enhance the defined district by presenting policy directions of improvement and detailed control of building construction including design components; site planning, architectural design and location of open spaces within the district. Within the District Plan area, a range of new planning restrictions are made possible, including controls over new road layouts, lot sizes, building design, building setbacks, and construction materials.
- b) To plan land use, facilities improvement including access roads, small parks, other public open spaces, setbacks, building design, and landscaping.
- c) To include specific regulations that will be used to enforce the provisions of the plan which consists of two parts: one relating to public facilities, and another with detailed regulations on private development within the plan area.

The really original aspect of the District Plan system is that local governments for the first time had the legal power to impose more detailed restrictions on private development activity than allowed by the zoning and building standards systems. Regulations in private building activity may include land use; maximum and minimum lot coverage, building height and FAR; setbacks from property lines; shape and design of buildings; building materials, color and styles; and landscaping details such as design of fences and preservation of existing trees.

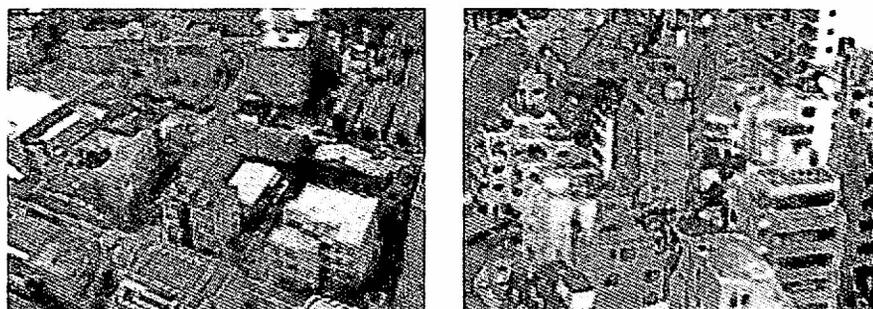
However, the District Plan has still these problems as follow. a) The legislation required significant public participation in plan formulation and approval. High level of agreement among residents and landowners is necessary in practice. b) As the plan is officially permitted to a public policy, local government has to make a considerable effort to gain support for the plan.

4-2. The District Plan of MLU area in Nerima

Nerima Ward is located north-eastern part around 15km from the center of Tokyo. After rapid increase in population during 1970s, it is now characterized as residential areas where population is more than 600,000, and most of the areas are formed with unplanned ways. To implement the physical environment and control developments in advance, local government is organizing the committee for making the machizukuri ordinance with people's participation.

The Southern District of Nerima Station (SDNS), which covers the area around 3ha, is regarded as the commercial center of Nerima Ward in the Master Plan. Residents and landowners had to cope with the changes of economic potentiality caused by the new construction of subway which passed the district. They have organized the committee to implement the project on a partnership with the local government and decided the District Plan in 2004.

Photo ; types of MLU in Nerima, Tokyo



The objectives of the District Plan are pointed out as below :

- a) making a lively local commercial center
- b) keeping mixed land use composed of commercial facilities and housings
- c) building a safety and intimate living environment to prevent disasters

The committee and the local government made outlines of the planning on their initiative : a) layout the 7 roads with planned widths, b) relocate buildings to set back to the limitation line of walls, c) restrict heights of buildings less than 25 meters along the each road, d) set a minimum unit of site more than 100 square meters, e) bury electric wires under the roads, f) color pavements on the roads, g) form harmonious townscape, h) preserve historical places.

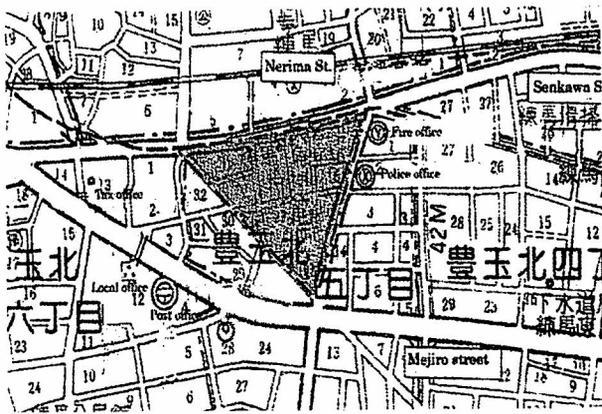


Fig.1. Location of the district



Fig.2. Land use of the district

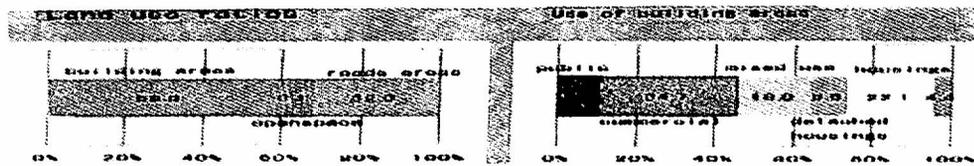


Fig.3. Ratio of land use of the district

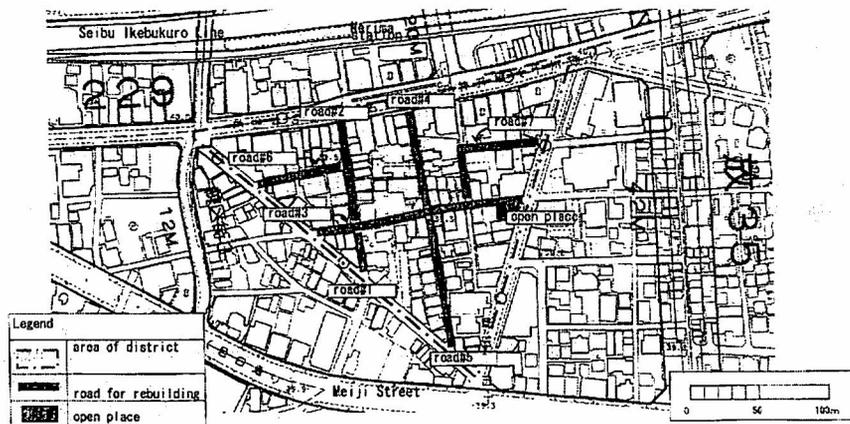


Fig.4. Layout of the roads

Progress of the project is shown below.

2001 Aug. : Organizing the meeting for studying “machizukuri”. (Held 7times)

2003 Jan. : The SDNS committee for implementing the district plan was organized by 4 commercial agencies and residential groups. (held 7 times as from)

2003 Jan-Feb. : The meeting to study the plan and exchange opinions held 4 times.

2003 Mar. : The research for making sure of residents’ views for the plan started.

2003 Aug.-Sep. : The questionnaires for machizukuri of the SDNS were delivered to the residents.

2003 Oct. : The SDNS machizukuri news had been started to deliver to the residents.

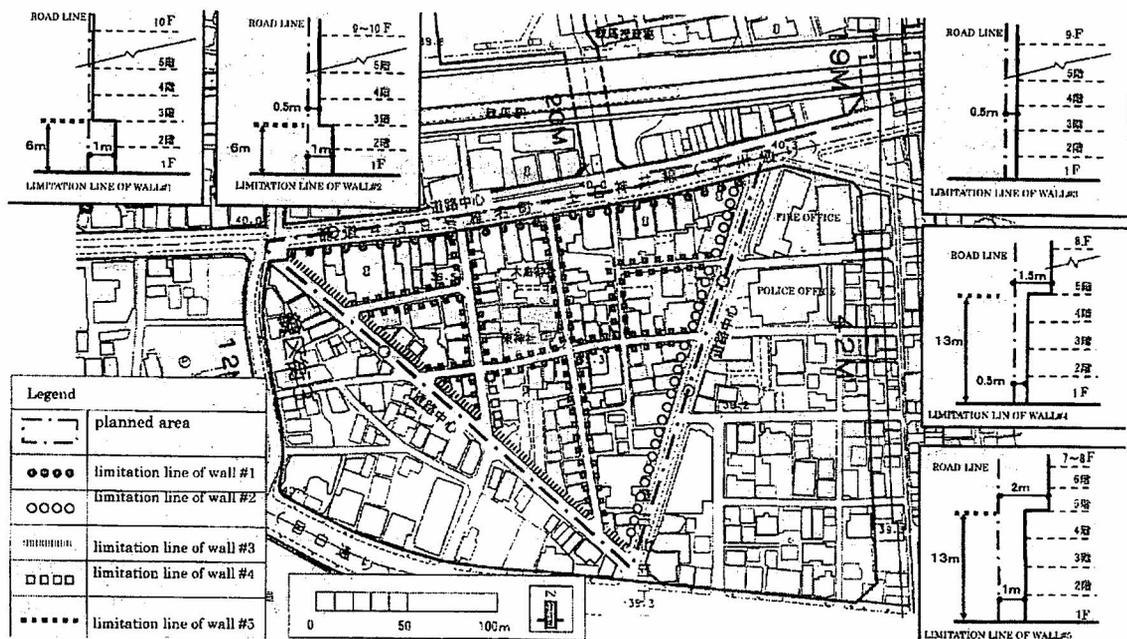


Fig.5. Limitation line of wall

2004 Jun. : Presentation meeting of the tentative plan was held 2 times.

2004 Jul. : Presentation meeting of the original plan was held 2 times.

2004 Oct. : Public inspection of the original plan during 2 weeks

5. MLU in Urban Area

Nerima project are intending to keep a certain mixed land use for forming one type of multi-habitat. In the process of urban spatial expansion, MLU areas has been transformed to specified land zonings such as commercial, residence and industries both in a center area and in suburbs of Asian Mega-cities. The both expanded areas have been taken usually as objectives for planning and implementing projects because environments of these areas have changed rapidly. Consequently, the greater part of MLU areas have been left sustainable without any special planned projects, or have changed autonomously being influenced by the socio-economic change of a whole city. Once considering the quality of urban life formed historically in MLU areas, and realizing these areas are left largely in-between the built-up areas, the new concept of multi-habitat have to be established as a strategic planning.

However, up until now, the MLU area has been left sustainable with a spontaneous improvement that residents have took on their initiatives, usually in coopera-

tion with a historical and cultural context of the district. Since rapid urban explosions have been criticized for excessive accumulations, which have caused traffic jams, degraded living environments and generated monotonous residential suburbs, the quality of city life in MLU areas should be reevaluated with its sustainable characteristics. These areas are plugged in Mega-cities, where improvements for on-site redevelopment have been taken in another way of planning rather than off-site redevelopment.

Multi-habitat allows residents first to have better opportunities to obtain jobs close to home, and second to keep communities sustainable based on their cooperative relationship. It also could make it possible for people to communicate with each other and get information directly, since it has formed a certain order of urban activities for residents to live together in a long time.

In other point of view, multi-habitat has possibilities also for establishing new urban life styles. Though the current trends to take in motorization and innovative information technology have caused concentrations in both population and capital into the primate city, they might have another possibility if a modern technology of diversifying urban activities for making a new urbanization is introduced as shown formations of Edge cities in US. Furthermore, middle class people increasing in mega-cities may try to adopt their life styles with new ways of SOHO in MLU areas.

Since, in the western countries, urban policies such as controls of motorization and enlargements of pedestrian spaces in central districts have begun to implement in many cities, these movement should be supported by the revaluation of MLU.

6. Conclusion

The lesson on Asian cities is not necessarily unscientific, because urban growth of these cities has shown possibilities to establish multi-habitat systems as strategic developments. Since the way of zonings has applied to avoid environmental problems due to adjacent locations of industries to living places, and to link such workplaces to home with mass transportations or motorways, it has caused first to lead urban lives not to be lively, for it has tended to define functions of areas to a monopoly purpose, and second to induce traffic congestions and a long distance of commuting.

Urban areas in Asian Mega-cities are classified usually into 3 districts; the central district where business/commercial offices, surrounding them, high-rise

apartments and high-quality shops are located, the inner district where small size business offices and houses are located in congestion, and the outskirts district of residential areas spread into rural areas. Though the division of these concentric circles in urban areas is similar to ones of developed countries, the following are pointed out as different characteristics in Asian cities.

First, rather spontaneous developments are implementing, and urban sprawls are to be watched because planning regulation is comparatively loose. Second, CBD areas are dispersed to form several urban cores in relation with their hinterlands by a rapid motorization. Third, so-called inner city problems are not to be watched in density areas. Fourth, slum settlements belonging to the informal sector are dispersed in the whole urban areas.

Coping with a disadvantage of a shortage of social infrastructure, planning a multi-habitat based on a community that aims at reconstructing a proximity to diversified workspaces, developing of small scale industries, holding a cultural complexity and securing environment for human development, should be plugged in the layer of built-in urban areas, and would be able to keep community lives with their initiatives.

The concept on multi-habitat is not an exclusive idea but a fluid and inclusive one. This is also related to how residents in city should live their own lives with their initiatives. Since visions of multi-habitat vary with locations of areas, these should be pursued effectively with the participative development policies on the grounds that we are now standing to think over sustainable human settlements in the era of limited natural resources and expansion of disparities.

Note and references

- 1) Tokyo Life, Tokyo Metropolitan Government, Vol.30, 1996
- 2) Housing in Japan, The Building Center of Japan, 1998
- 3) Urban White Paper on Tokyo Metropolis 1998, Bureau of City Planning, Tokyo Metropolitan Government, 1998
- 4) Andre Sorensen : The Making of Urban Japan, 2004

要 約

アジア大都市における定住環境形成を計画的な視点から捉えると「混住」がキーワードになる。大都市それぞれの地域的特性は従来の「西欧型」理論では包含できない。世界的に都市化が急速に進んでいるが、その中に埋め込まれた市街地内部での混住（職住近接、民族住み分け、用途混合）型空間の構成は固有の様相を呈している。20世紀に誕生したゾーニング手法を適用する一方で、適切な用途の混在も同時的に包含する動的な対応が必要である。いわゆる近代化による効率的、画一的な計画手法を超えた、地域特性、資源に依拠した構想が求められている。本稿ではこうした混住型地区形成について東京都練馬区での事例をもとに考察する。