

CHAPTER 6

VI CONCLUSION

This dissertation had the following objectives: analyze the land conversion process at the micro-level from the viewpoint of agents in an urban land market (e.g., landowners, land buyers, intermediate actors, etc); and discuss this analysis at the macro-level in view of the whole process of urban development from rural to urban. These objectives were pursued by undertaking a case study of Maebashi city. The city is a medium-sized city with a population of approximately 300,000 with only one core developed area. Two areas were selected as example areas in which micro-level examinations of land-use analysis were performed: (1) the Rokku area in the inner fringe; and (2) the area of city centre. The Rokku area is a newly developed residential area adjacent to the existing built-up area of Maebashi, and the city centre is characterized by new constructions of shops and high-rise buildings. In order to obtain land-ownership data, land assessment rolls housed in the Property Tax Division of Maebashi City Hall were used. The selection of agents in the urban land market was based on land-trade and land-inheritance data from the rolls. The data of 1980 and 1993 were examined for the sample areas. The land-use data for both areas were mainly obtained by the author's field survey, while some parts were supplemented by aerial photos, topographic maps and residential atlases. To gather information on the decision-making processes, the author interviewed the selected agents.

The characteristics of the relationships between land-use and land-ownership in the Rokku area are summarized as follows. In 1980, land-use in the southern part of the

Rokku area was predominately rural, and in particular, paddy fields. The rate of rural land-uses in the area was more than 50%. On the other hand, the rate of urban land-uses which was distributed mainly along the newly built roads remained at around 40 %. Most of the major agents were farmers who owned more than 50% of the total land in the Rokku area. Viewing the combination of land-uses, the Rokku area in 1980 was situated in the stage-2 (early urban influence). By 1993, the most striking change that occurred was the decrease in rural land-use. At the same time, the number of roads increased with progress on the land re-adjustment program. Along newly built roads there was a rapid increase in area-oriented usage such as shops, apartment houses and parking lots. After urban land-uses increased remarkably during 1980-93, urban land-uses accounted for more than half of the total land area. Conversely, the rate of rural land-uses dropped to about 30%. In 1993, the land owned by farmers decreased remarkably to the level of 33.2%. On the contrary the land owned by office workers increased to 38.3%. In addition, the land belonging to shopkeepers, normal offices, and Maebashi Municipal Office also increased. Judging from these facts, the Rokku area in 1993 was situated halfway between stage-3 (exurbanization or suburbanization) and stage-4 (urban). In general, the original land owned by farmers was replaced by other agents newly entering the area: such as, office workers, shopkeepers, and factory owner, and so on.

Thirty agents were selected as interviewees whose causes, conditions and behaviour in regard to land-use decisions was closely examined. Twenty-six of thirty agents were farmers and the rest were non-farmers. During the interview, agents were asked about their reasons for disposing of landholdings. All made their land-use decisions on their own land based on several causes. Their behaviour in regard to these

decisions can be divided into three categories: utilizing, trading (or selling), and abandoning land. Some farmers with high intentions to keep farming tended to sell a part of their land and allot the money to purchase land a few kilometers farther away in rural farmland where they could farm much more effectively. Moreover if the intention to keep farming was high, even when the head of the family died, the surviving members generally sold only a part of their land to pay inheritance tax, keeping the rest of the land in its former state of farm management. On the other hand, other combinations of behaviour can be seen in the group in which farmers' intentions were low. When the head of the family died they tended to utilize, abandon as well as sell land. For example, if they had the desire to utilize their own land, some pieces of their land with good access to roads tended to be converted to urban uses such as apartment houses, shops and parking lots. If they did not have the desire to do so, some pieces of their land with high demand tended to be sold, while land with low demand tended to be abandoned. In case of non-farm landowners, some principal reasons for selling out their land tended to be the request for selling and the failure of their non-farm businesses.

The characteristics of the relationships between land-use and land-ownership in the central area are summarized as follows. Land-use in 1980 was characterized into three major categories: office blocks (either side of the main street); shops (northern district); and residential (southern district). Along the main-street there was a cluster of parking lots with a capacity around 20-30 cars. In the central area of the city, the rate of urban land-use had already reached the level of 98% in 1980, which placed it at stage-4 (urban). Until 1996, there were two general types of land-use change in the central area: (1) Old residences, low-rise offices, and food shops were replaced by

parking lots, offices, hotels, and apartments. That is, there was a change to more intensive use of land after renovation. This type of change was evident by the increased significance of the central area functioning as a business district. In this process, corporations and individuals in Tokyo made a tremendous impact on the area. Along the main street, especially around the crossing point of Route 50 and Maebashi station street, relatively larger lots were renovated to high-rise buildings by several insurance companies that had ample funds, while other kinds of corporations and individuals constructed middle-rise buildings in the back blocks. At the same time, (2) Changes to transitional land-use with no buildings (e.g., parking lots) were seen in almost all the blocks in the area. Many original dwellers in the sample area sold land which was changed into parking lots. As a result, the area reached stage-5 (completely urban).

Thirty-three cases of such land-use change were identified as having great impact on the urban landscape. Finally, fifty-four agents (twenty cases) with which the author could make contact were selected for interview. For each agent, the causes, conditions and behaviour of their land-use decisions were closely examined. The agents in the central area made land-use decisions and chose different categories of behaviour. The major causes for their decisions were shortages of space for shops, warehouses, residences and parking lots, which were the causes in the nearly half of cases. In addition, other causes for land-use decisions were identified: looking for more effective land-use; profitable tendering of new business; profitable bank finance; land inheritance; desire to rent apartment houses and offices; slump or failure in business; request to sell property, and others. The conditions motivating such decisions were: funds for paying of inheritance tax or purchasing land; desire to diversify management;

sufficient space to renovate own land; the possibility of purchasing or lending neighbouring lots; and securable bank finance. Above all, the desire to diversify and secure finance effectively influenced their behaviour. Their behaviour can be divided into six categories: 1) 'renovating (utilizing)'; 2) 'renting'; 3) 'buying or lending land'; 4) 'idling lots used for parking'; 5) 'selling'; and 6) 'relocation of head office to suburbs' (the original building is vacated so that they could rent it). Categories 1-3 were brought about by more positive decisions; on the other hand categories 4 and 5 were brought about by negative decisions. Finally, category 6 was somewhere between a negative and positive decision. A notable feature of decisions in the city centre, where most of the land was in demand, was that behaviour in one case affected others. In other words, one decision affected another in a network of causal relationships. The majority of agents in 1980 were office workers accounting for 52.3%. In 1993, although the rate of land owned by the two largest groups of agents, office workers and shopkeepers, decreased slightly, they still outnumbered the other agents. At the same time, financiers, developers, builders, and Maebashi Municipal Office increased their shares to additional 3 to 4%. In general, the original land owned by individuals (i.e., office workers and shopkeepers) was replaced by several kinds of corporations.

Based on the analysis take in this dissertation, general relationships between land-use change and decision agents have been identified. In accordance with the growth, some agents having been active only in the inner fringe advanced into the city centre, while conversely other agents only in the city centre came to open their branch offices or shops in the inner fringe area. As a result, the number of agents and the types of their behaviour in the sample areas generally increased. Moreover, the most important feature was that when development progressed to the next stage, the particular agents

who only chose limited behaviour during the earlier stages took several kinds of behaviour in the same area. The reason for their behaviour can be considered as follows: 1) The causes and conditions for their land-use decisions diversified due to the increase of the number of agents: 2) As a result of diversification of decisions, the choices for their behaviour also diversified, thus the behaviour itself becomes more complicated. Multiple kinds of behaviour taken by one agent was a phenomenon only observed in the city centre with high urban land demand. However, when the change in urban structure was due to urban growth; characteristic behaviour of the later stages of development was seen even in the suburbs, which were previously at an earlier stage of development.

There have been a large number of studies on general land-use. However, one important aspect which has been paid only little attention is the 'driving force' viewpoint of land-use. That is, the relationship between land-use change and land-use decision-making. In terms of trying to discuss the aspect mentioned above, this dissertation would be important.