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# Resident Consciousness Investigation on Ageing Problem of Some Newtowns around Nagasaki City

by

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A large-scale population inflow to the urban area in Japan since 1950's, under the atmosphere of reconstruction, has generated the house shortage problem in the urban areas. This situation provided serious problem of housing shortage in urban area and in order to solve the problem, Newtowns were constructed in the skirts of large cities. Nowadays, however, the ageing of the residents is increasing and various problems occur in Newtowns. Although local environment was planned in the Newtowns, environmental improvement, corresponding to the ageing, will be necessary in the future Newtowns. In this study, resident consciousness investigation was carried out in the three Newtowns around Nagasaki City to identify the problems proceeding in Newtowns and to suggest how to improve the infrastructures in the Newtowns.

## 1. Introduction

In the latter half of 1950s, a large-scale population inflow to the urban area was generated in all part of Japan. Therefore, Newtowns were constructed to reduce housing shortage in urban area especially to supply the housing of high quality. At present, several decades later since the first Newtowns were constructed, various problems induced by ageing are apparent. Especially, the ageing of the Newtowns in progress in which the simultaneity occupancy of the same generation is a serious problem in Newtown.

In this study, the authors carried out the questionnaire survey in the three Newtowns in the skirts of Nagasaki City, to identify what kind of problems occur in the Newtowns in these days and to discuss how the old infrastructures distress aged residents in the Newtowns.

## 2. Newtown

The first construction of the Newtown in Japan was Senri Newtown, Osaka planned in 1958. After that many Newtowns were constructed in the various parts of the country, especially during the high-growth period of Japanese economy<sup>1)</sup>. The sizes of constructed Newtowns

were varies from huge to small, depending on their location whether the metropolitan area or in the local city.

### 2.1 Ageing and Newtown

The residents in the thirties or forties when constructed remain living in the Newtowns. As a result, the rapid ageing is a serious problem in these years in the Newtowns. Because the inhabitants are concentrated in the same age group, it will be aged society at short notice in which the most part of residents became elder, namely 65 years or over.

In addition, as the ageing advances in these days, in the Newtowns, which started as an ideal environment when constructed changes into barriers for the elder and the countermeasure should be taken immediately. The ageing of the residents provides another ageing problem that the infrastructures are inconvenient for the old people.

### 2.2 Newtowns around Nagasaki City

Figure 1 shows the locations of Newtowns around Nagasaki City. These were mainly constructed under a housing development program for single house since

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1970s. DIALAND, MENOTO, NAGAYO and KOEBARU Newtowns are typical representatives. These Newtowns had passed about 20 years since they were constructed, and the construction was extended as employment opportunity in Nagasaki City increased.

### 3. Questionnaire Survey at Newtown

In this chapter, the authors show the contents of the questionnaire survey.

#### 3.1 Study Area and Questionnaire

In this study, the authors carried out the questionnaire survey in NAGAYO, DIALAND, and MENOTO Newtowns, location of which are displayed with the underline in Figure 1. NAGAYO, DIALAND and MENOTO Newtowns were constructed in 1979, 1984 and 1973, respectively. The survey was carried out in NAGAYO Newtown in October 1999, in DIALAND in November 2000 and in MENOTO Newtown in December 2000. Table 1 shows the distribution number and the collection rate of the survey in each Newtown.

Questionnaires is as follows:

#### 1) Personal details

Sex, age, occupation, number of family, family members, years of living in the house, etc.

#### 2) Traffic Environment

The usage of public transportation, maintenance inside residential estate sidewalk etc.

#### 3) Prevention of Disaster

Crisis consciousness against the disaster, experience of training for the emergency or other, etc.

#### 4) Medical care and Welfare

The number of hospitals / clinics in the surroundings of the Newtown, etc.

#### 5) Council activities and association with neighbors

The existence of the council / the circle and participation, frequency of local communication among neighbors, etc.

### 3.2 Results of Questionnaire Survey

In this section, the authors show the results of survey in the three Newtowns.

#### (1) Personal details

Figure 2 shows age distribution in each Newtown. More than 70% residents are over 50 years old in NAGAYO and

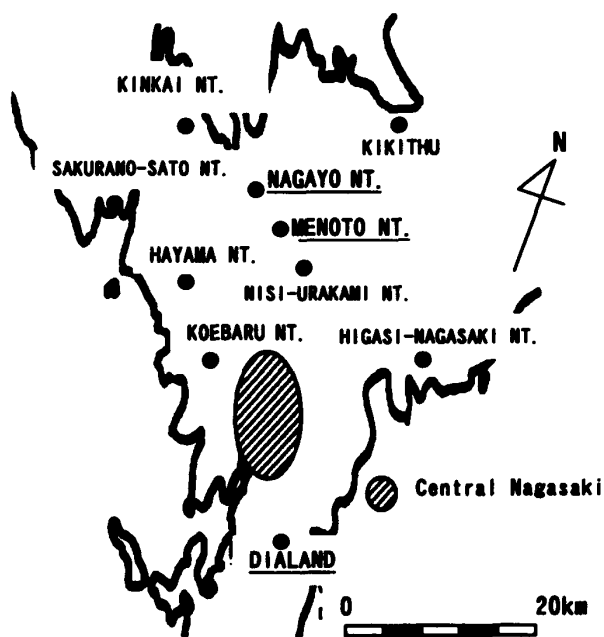


Fig.1 Newtowns around Nagasaki City

Table 1 Distribution number of questionnaire and the collection rate

Newtown Name	Distribution Number	Collection Rate (%)
DIALAND	300	39.0
MENOTO	300	33.3
NAGAYO	150	44.7

MENOTO Newtowns. On the other hand, 40% residents are in the forties in DIALAND. These results show that, NAGAYO and MENOTO Newtowns would be aged societies in the next decade. Slightly later, DIALAND would be an aged society in 15 or 20 years. The age distribution in NAGAYO Newtown shows more than 20% is 65 years old or over, which indicates the rapid growth of ageing than other Newtowns.

Figure 3 shows residents' living years in each Newtown. From the figure, large proportions of the residents immigrated during the first decade after construction. The occupancy in NAGAYO Newtown started 22 years ago, whereas as in MENOTO Newtown 27 years ago and in DIALAND 16 years ago. This shows one characteristic of the Newtowns; the existing period and occupancy of the living residents are almost same.

Figure 4 shows frequency of outing for the residents in each Newtown. From the figure, over 50% residents in all

Newtowns go out everyday. When including “2 or 3 times a week”, 90% or more residents outing more frequently than 2 or 3 times a week.

Figure 5 shows the frequency of outing by age groups for DIALAND. From the figure, the older residents go out less frequently. In the age group of “65 years old or over”, more than 40% of residents go out “2 or 3 times a week”. The older residents are, the less frequently they go out. In other words, the older residents spend more time in their houses.

## (2) Traffic environment

Figures 6 and 7 show the opinion on road facilities inside the Newtowns and walkability of sidewalks inside the Newtowns. Fig. 6 shows, over 50 and 60% of residents in MENOTO and NAGAYO Newtowns feel that road facilities are not good enough, whereas over 60% of residents in DIALAND feel it is good enough. From Fig.7, for the walkability of sidewalk in DIALAND, 80% of residents feel good enough. On the other hand, 60% and 40% residents in MENOTO and NAGAYO Newtowns feel it is not good enough. The reason is that, the guideline for construction in DIALAND, newer than NAGAYO and MENOTO Newtowns, was different from other two Newtowns.

From the field survey in DIALAND, the sidewalks are wide enough and there is sufficient space to establish the sidewalks in both sides of the road and to walk side by side. In NAGAYO and MENOTO Newtown, however, there are many places where the sidewalks are not separated from the road and the maintenance of the sidewalks is not enough by the tree planting projects in the sidewalk. In addition, guardrails are not founded in the narrow road to separate the sidewalk and road.

Figure 8 shows the walkability of sidewalks by living years in MENOTO Newtown. The longer living year leads the increase of “Good” or “Normal”. This is interpreted that, the residents who live longer period are accustomed to sidewalk facility situation. Figure 9 shows the present status of the public transportation for the elder, 65 years old or over. Over 60% of DIALAND residents feel good enough, whereas more than 60% of NAGAYO Newtown residents feel “Bad” or “Not very bad”. The reason is, in DIALAND, there have been enough route and frequency of the bus service, as well as facility of the bus stops has been improved. There are five bus stops at the location easily accessible for the residents.

In NAGAYO Newtown, on the other hand, the bus service is less convenient than in DIALAND. In the daytime, there is only one bus operation in one hour. In MENOTO Newtown, 50% or over of residents answered “Normal” and more than 30% answered “Not so bad” or “Bad”. This is because the bus services are more frequently than NAGAYO Newtown.

Figure 10 shows the situation of the public transportation for the elder by age groups in MENOTO Newtown. From the figure, in the groups of the thirties and the forties, percentage of total rate of “Bad” and “Not so bad” are more than 70% and 50%, respectively. This is interpreted that the younger generations, thirties and forties, have their own car and they do not usually use buses.

Figure 11 shows the means of traffic used for outing by each age group in MENOTO Newtown. From the figure, most commonly used means of traffic under forties are “Own car”. For the older, on the other hand, the bus user exceeds the own car user and it seems that the possession rate of the own car of the elder is not so high due to decrease of frequency of using car.

Figure 12 shows the dissatisfied point inside Newtown about the traffic environment in DIALAND and MENOTO Newtown. From the figure, the most popular answer in each Newtown is “Too many slopes and stairs”. This is because these Newtowns are constructed in undulating area and the roads and stairs between houses are slope-wise. In MENOTO Newtown, “Narrow sidewalk” is as popular as “Too many slopes and stairs”.

## (3) Prevention of disaster

Figures 13 and 14 show the worries of disaster and types of disaster. From the Fig.13, more than 50% of residents in each Newtown feel “Worry” or “Little bit of worries” about some kind of disaster.

Especially in MENOTO Newtown, more than 40% of residents feel “Worry”. On the other hand, over 50% in DIALAND and NAGAYO Newtowns feel “Not so worried”.

Fig.14 shows the disaster that threatens the most residents is typhoon in DIALAND. The reason is that in DIALAND, facing onto the sea, sea winds are markedly strong when a typhoon comes. Other disasters that threaten the inhabitants in each Newtown are “Fire broke” and “Landslide”, in equal proportion. The reason for worrying landslide is that the housing area is constructed by the

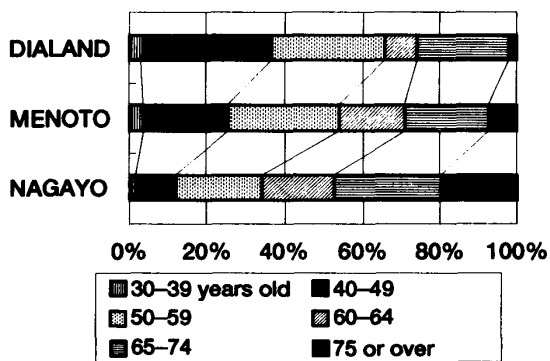


Fig.2 Age distribution

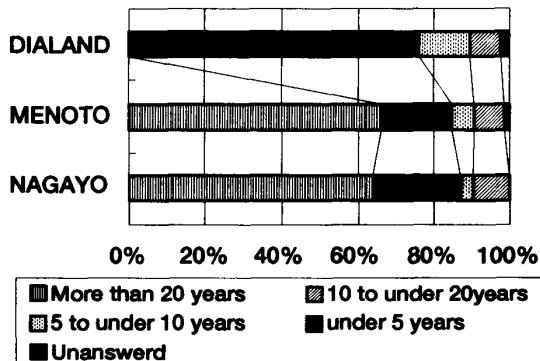


Fig.3 Living years

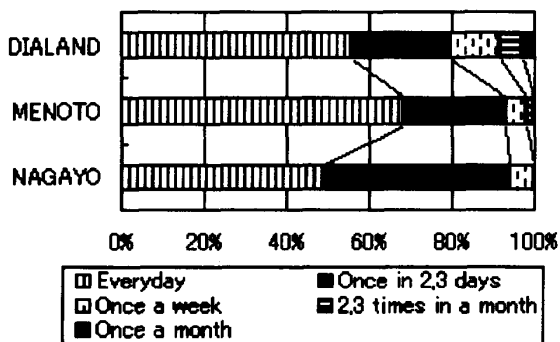


Fig.4 Frequency for outing

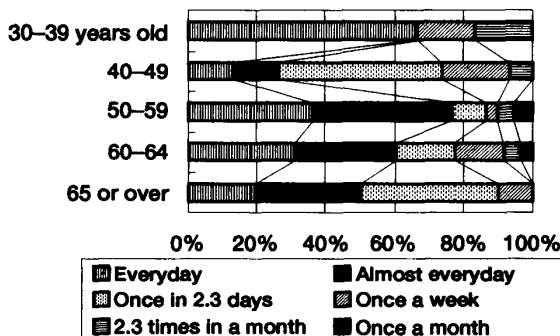


Fig.5 Frequency of outing by age group (in DIALAND)

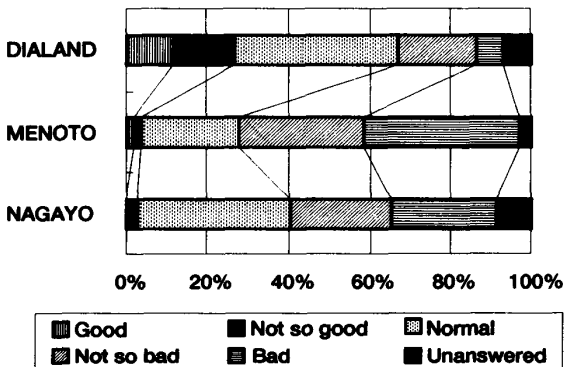


Fig.6 Road facilities inside Newtown

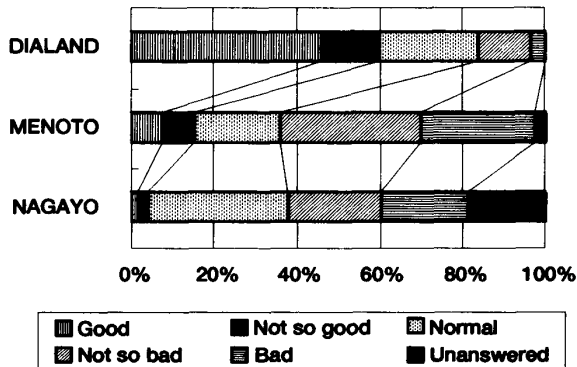


Fig.7 Walkable of sidewalk inside Newtown

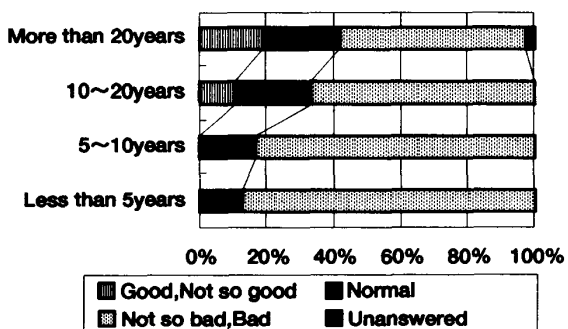


Fig.8 Condition of sidewalks inside Newtown by living years (in MENOTO Newtown)

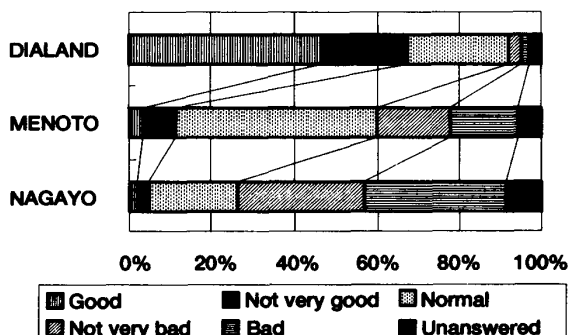


Fig.9 The public transportation which considered elder (65 or over)

modification of the gradient slope land.

Figure 15 shows the opinion on any activities to reduce the risk of disaster. From the figure, 80 to 90% of residents in all Newtowns take no action for reducing the damage of disasters. On the other hand, more than 20% of residents in NAGAYO Newtown practice some activities for reducing the damage of the disasters. The difference is caused by that the social relationships among the neighbors in NAGAYO Newtown have matured and sense of helping neighbors in disaster seems to be common.

#### **(4) Medical care and welfare**

Figure 16 shows the number of hospitals / clinics in the surroundings of the Newtown. The 20 to 30% residents in each Newtown feel "Enough". Especially in NAGAYO Newtown, almost 30% feel "Enough", whereas 20% of residents feel "Very few".

The authors interpreted that one of the reasons for these results in NAGAYO Newtown is the higher ratio of inhabitants over 60 years old, who use hospitals frequently, than other Newtowns.

#### **(5) Council activities and communication with neighbors**

Figures 17 and 18 show importance of the residents association meeting and frequency of participating the meeting. Fig.17 shows that, 70% and 50% of residents in DIALAND and MENOTO Newtowns feel the residents association meeting is "Necessary".

The chairperson of the meeting mentioned: One reason for the high ratio of "Necessary" in DIALAND is that the residents association meeting is carried out for consultation with the administration about twice a month and the opinions insisted in the meeting are conveyed directly to the administration.

On the other hand, in NAGAYO Newtown, more than 60% of residents feel that the residents association meeting is "Needless". Considering age groups, lots of the elder, 65 years old or over, answered "Necessary". This is because the elder people possess enough time to participate the residents association meeting and may have matured relationship among neighbours.

From Fig.18, the total of "Always" and "Sometimes" is over 50% in DIALAND and MENOTO Newtowns. In NAGAYO Newtown, on the other hand, only 20% of residents joined "Always" or "Sometimes". and more than

50% residents participated "Seldomly".

Figure 19 shows the role of the residents association. The most popular answer in all Newtowns is "Cleaning activity" composing 20 to 30%. The reason is that the cleaning activity is an easy way to communicate with neighbors. "Festival host" and "Communication opportunity with neighbors" are consist of 20% in all Newtowns. The authors interpreted the reason for this result is the residents view the meeting as an opportunity of the neighborhood association.

Figure 20 shows the frequency of communication among neighbors. The total ratio of "Often" and "Sometimes" is 70 to 90% in all Newtowns. Especially in NAGAYO Newtown, almost 40% of residents have good communication with neighbors. This is explained from that this Newtown is older than other Newtowns and the relationship among the inhabitants is matured.

#### **4. Conclusions**

In this study, a questionnaire was carried out in the three Newtowns around Nagasaki City with special focus on ageing. The results are as follows:

- 1) Personal details; the rate of over 65 years old is greater than 30% in all Newtowns. In the near future, these Newtowns will be among aged societies. Especially, almost 50% residents in NAGAYO Newtown are over 65 years old even now and this Newtown is already an aged society.
- 2) Traffic environment; the most comfortable environment of the road, sidewalk and public transportation is observed in DIALAND. On the other hand, NAGAYO Newtown has many problems about traffic environment including the road and sidewalk facilities. Particularly, sidewalks within the Newtown are narrow and dangerous for elder people to walk. Also MENOTO and NAGAYO Newtown have the same problems.
 

The representative answer of dissatisfaction inside all Newtowns, regarding the traffic environment, is "There are too many slopes and stairs".
- 3) Prevention of disaster; almost 50% of the residents in MENOTO and DIALAND Newtowns are worried about "Typhoon". In addition, they are worried equally about "Fire broke" and "Landslide / Hillslide" in all Newtowns. More than 80% of residents in all Newtowns, however, take no action to reduce damages of the disaster.

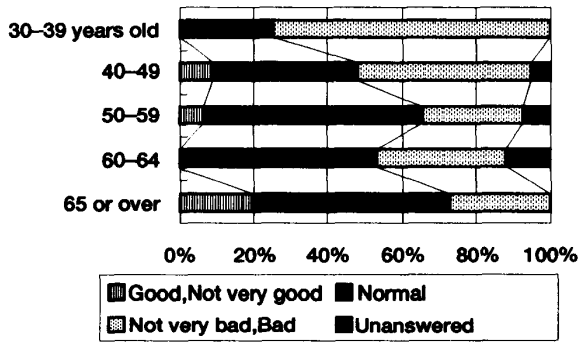


Fig.10 The situation of public transportation for the elder by age group (in MENOTO Newtown)

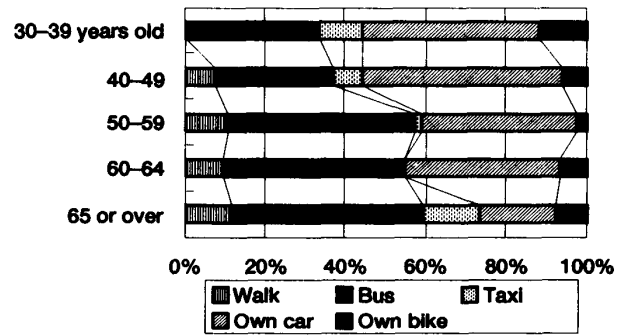


Fig.11 The means of transportation utilized by each age group (in MENOTO Newtown)

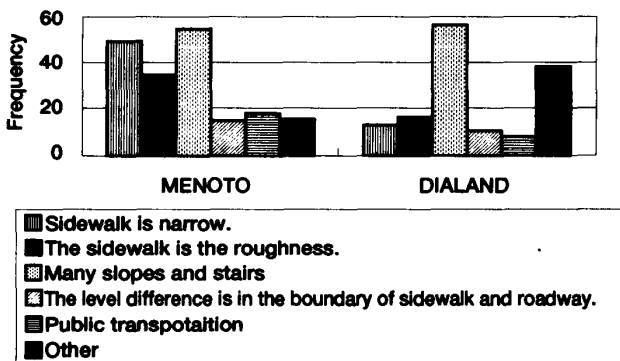


Fig.12 The dissatisfied point inside Newtown for the traffic environment

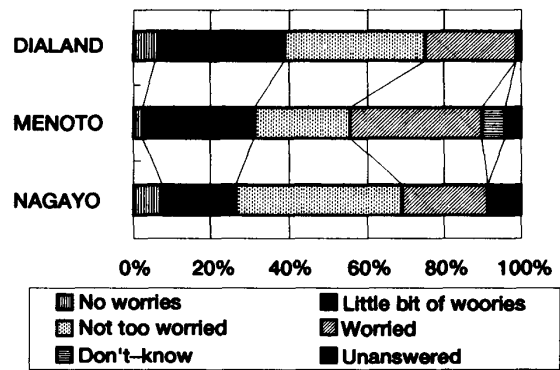


Fig.13 Worries of disaster

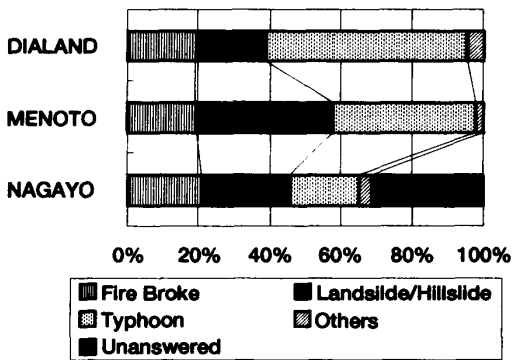


Fig.14 Types of disaster

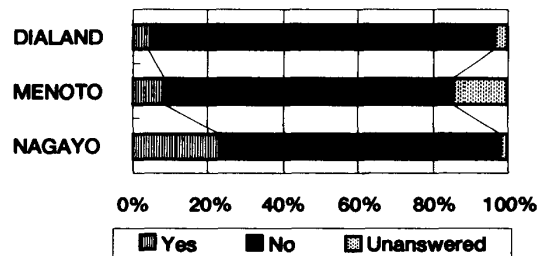


Fig.15 Any activities for reducing the risk of disaster

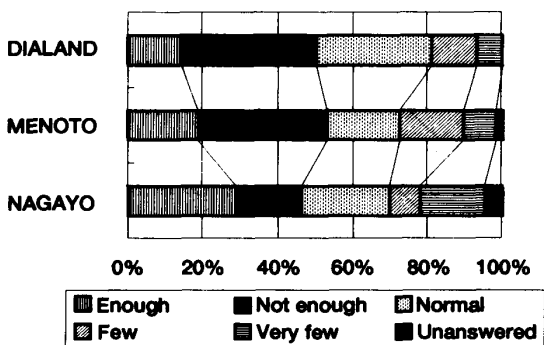


Fig.16 Number of hospital or clinics (in surroundings)

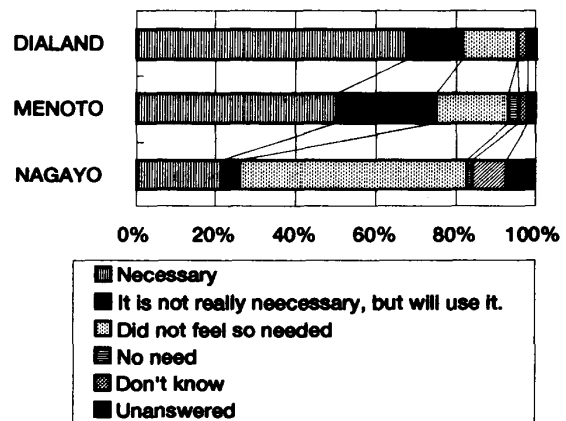


Fig.17 Importance of the council meeting

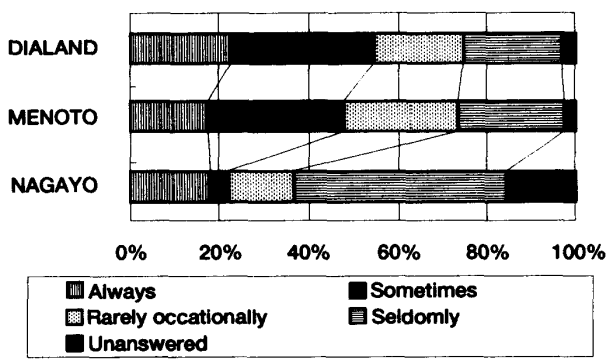


Fig.18 Frequency of participating the residents association meeting

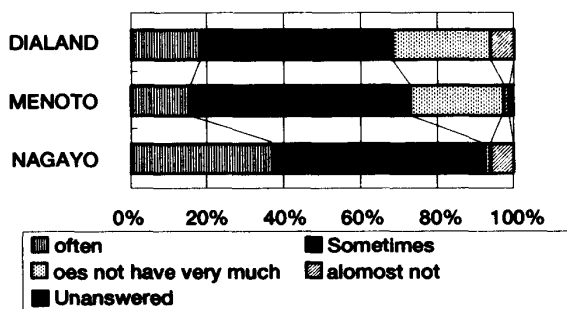


Fig.20 Frequency of communication with neighbours

4) Medical care and welfare; 30% of residents in each Newtown feel that the number of hospitals or clinics in the Newtown or its surroundings is "Enough". However, more hospitals / clinics will be necessary to keep "Enough" feeling because society will be aged in the near future.

5) Council activities and association with neighbors; 50 to 70% of residents in DIALAND and MENOTO Newtowns feel that the residents association meeting is "Necessary". Also the frequency of participating the meeting is frequent adapting to the importance of the meeting. On the other hand, the answers for the two questions are not so high in NAGAYO Newtown.

From these results, in the Newtowns where the residents live long, the residents contribute to a larger extent to the residents association meeting.

Among the Newtown residents, more than 30% are within the forties and the fifties and they are the old reserve

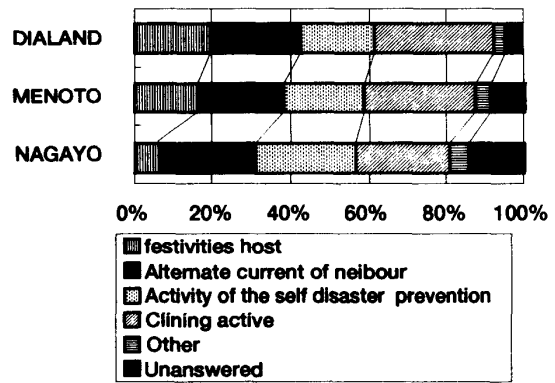


Fig.19 The role of the residents association

generation. Therefore, it is necessary to take countermeasure immediately to adapt the rapidly progressing ageing problem. Although there are lots of requests from the residents to improve the infrastructure facilities, the request to improve human relations, such as quality of the residents association meeting, is seldomly seen. Especially, this tendency is more remarkable in NAGAYO and MENOTO Newtowns.

In the near future, these Newtowns should be ageing society. For the construction of improved Newtowns by considering the needs of the elders, it is necessary to improve infrastructure by the residents themselves and by cooperation of residents and administration. Also, it is necessary to increase cooperation and self-help efforts between residents in order to mature the human relations in the form of active neighborhood association in the Newtowns.

**5. Acknowledgments**

This questionnaire survey was carried out under the cooperation of the residents in NAGAYO, DIALAND and MENOTO Newtown. The authors' gratitude is greatly expressed for their cooperation.

**Reference**

1) M. FUKUHARA, The Newtown is Now, Tokyo Shinbun Press, pp.1-3,1998(in Japanese).