Nonsan Age-Friendly City Standards Evaluation

논산시
NONSAN CITY

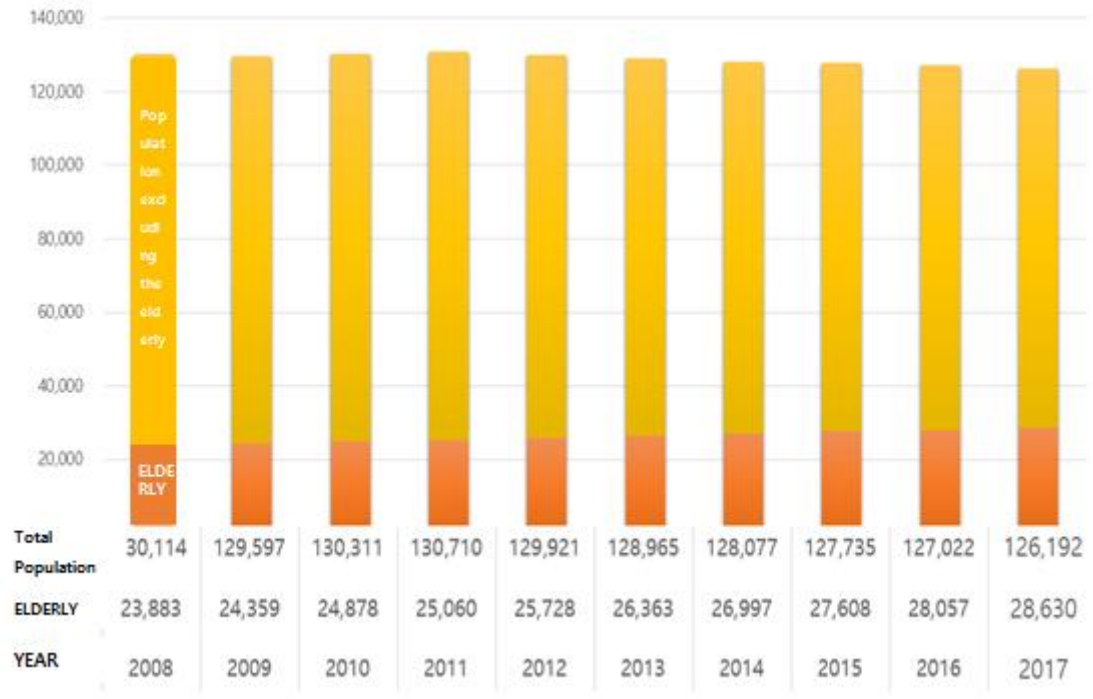
Chapter 1. Development of the Checklist for Level of Age-Friendliness

1. Nonsan's Demographic Aspect

- The elderly population of Nonsan has been on a steady rise, reaching 23.4% (28,630 persons) of the total population of Nonsan as of the end of 2017.
- Korea entered the aging society in 2000 and became an aged society in 2017, and therefore considered as a country with a rapid rate of aging. However, Nonsan has already become a super-aged society, where 20% of its population is senior citizens, facing a serious level of aging among the cities in Korea.

<Figure 16> Changes in Total Population and Elderly Population (2008-2017)

(in number of persons)

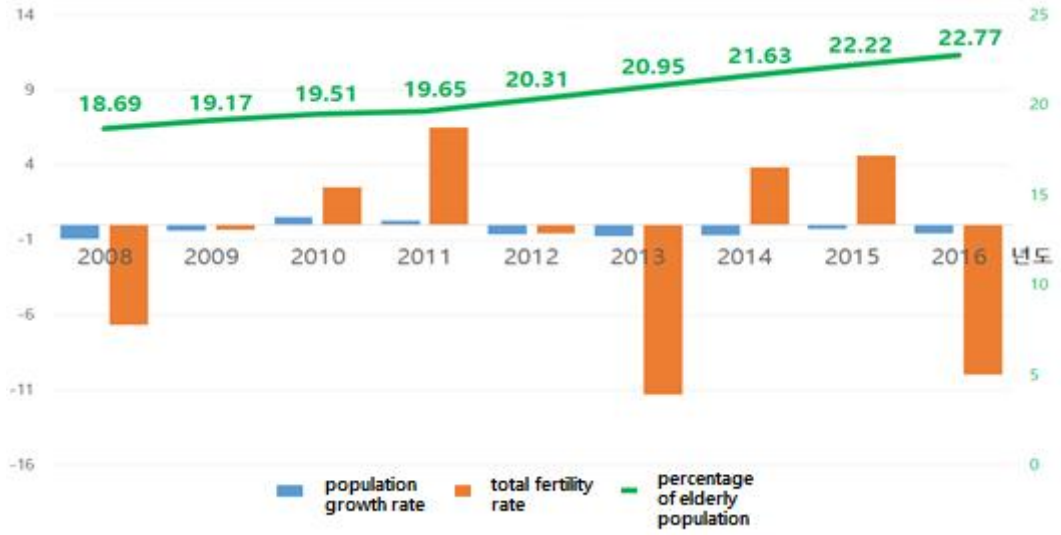


○ Comparison of the population growth rate, the total fertility rate and the percentage of elderly population shows that the first two rates are in negative figures while the percentage of elderly population is on a constant increase.

○ Moreover, the gap between the total fertility rate and the percentage of elderly population is huge at around 30%, which means that the city will have a greater sense that it is aging.

○ Looking at the variation in the three indicators, the total fertility rate tends to increase and decrease depending on the year but the remaining two move to one direction.

- In other words, the total population is on the decrease, the total fertility rate is sometimes on the rise and other times on the decrease, and the elderly population is on the increase. This shows that Nonsan suffers from a social phenomenon of a low birth rate and an aging society.



Source: Nonsan Statistical Yearbook (2017), Website of Nonsan City (http://www.nonsan.go.kr/)

◦ Nonsan's aging index[1] already surpassed 100%, marking 104.29% in 2009. The number has been on a constant increase, and it reached 155.14% in 2015. In other words, the speed of aging was so fast that the index increased by 50.84%p in six years.

- This is reflected into the fact that the number of child population has been on a constant decline while the number of senior citizens has been on a constant increase from 2008 to present.
- An increasing aging index means that the number of senior citizens who need to be supported is relatively higher than the number of people entering working age in the future. This calls for proactive actions.

◦ Accordingly, the eight areas suggested by the World Health Organization ("WHO") (outdoor spaces and buildings; transportation; housing; social participation; respect and social inclusion; civic participation and employment; communication and information; and community support and health services) are used as criteria to evaluate the level of Nonsan's age-friendliness, with an aim to build a truly age-friendly city.

2. Composition of the Checklist for Level of Age-Friendliness

1) Method and Procedure to Compose the Checklist

(1) Development of the Checklist

◦ Nonsan's Checklist to evaluate the level of age-friendliness has

1) Aging index: the percentage of the elderly population (65 years old or above) to the child population (younger than 15 years old) in a society

been developed in reference to the WHO's Guide for Global Age-friendly Cities, Seoul's Checklist for Age-Friendly City ("WHO Guide"), Jeongeup's Checklist for Age-Friendly City and Busan's Checklist for Age-Friendly City.

◦ Although based on WHO's Guide, the evaluation checklist is also developed based on two principles in order to avoid creating a standardized survey not so different from other surveys, and to construct the check items taking into consideration the city's current situation as well as the possibility of future development.

① Principle of "Choice & Focus"

◦ In order to create a unique age-friendly city that fits Nonsan's needs, it is more efficient to find the key elements to become an age-friendly city and make a heavy investment in them. The distinct features of the city would be reflected into the process of drawing the main elements that can be improved on top of Nonsan's existing senior policy, which is significant in that they can be reflected into making Nonsan an age-friendly city in a creative way.

◦ In this regard, the primary analysis was done on the current level of age-friendliness of Nonsan by analyzing the conditions and precedent studies and gathering the information on project planning and implementation status of the divisions and on the project details to better organize the evaluation items. Then, the survey was formulated focusing on the items that are actually enforceable by the city in the future. However, the items essential to make Nonsan an age-friendly city were included even if their implementation seemed a little uncertain under the current circumstances.

◦ To do this, the work plans of each division of Nonsan city government were analyzed before composing the survey and the city's current age-friendliness level was assessed in terms of policy. The result was reflected into the checklist so that relevant opinions of senior citizens living in Nonsan would be collected.

② Principle of Simplification

◦ Considering the respondents of the survey are senior citizens, the number of questions was minimized and the questions were constructed in a simplified form. Also, the areas where the views of senior citizens have already been gathered in recent previous studies were made into a checklist, minimizing the number of questions in the survey.

◦ The easy words were chosen in the survey to enable senior citizens to share their thoughts in this survey.

(2) Procedure to Compose the Checklist

◦ The researchers first divided the items into two types based on WHO's evaluation items to draft the evaluation checklist: the items requiring a field study and the items requiring policy analysis.

◦ The former (items requiring a field study) was made into a survey to seek primary consultation from experts of relevant fields.

◦ After the primary consultation, a secondary consultation was done with the civil servants of Nonsan city government.

◦ The final version of the survey was confirmed after researchers and field experts in senior welfare reviewed.

<Table 54> Development of Nonsan's Checklist for Age-Friendly City

Step 1	Draft of the survey by researchers
Step 2	Primary consultation from experts of senior welfare, urban planning and survey analysis
Step 3	Secondary consultation from Nonsan city government's civil servants
Step 4	Finalized survey after the review by researchers and field experts in senior welfare

2) Framework for Analysis

○ Among the eight areas included in WHO's Guide for Global Age-friendly Cities, Nonsan should focus on the following projects (excluding any overlapping parts):

<Table 55> Analysis Framework for Nonsan's Age-Friendliness Level

No.	Area	Tasks
1	**Outdoor Spaces and Buildings**	Parks, outdoor recreational areas, pedestrians first/wheelchair accessibility on the street, the gap between roads and pedestrian sidewalks, crosswalks, barrier-free buildings, convenience of using facility/service
2	**Transportation**	Appropriate fares, reliability and frequency of operations, convenience, information on route/schedule, convenience of using taxis
3	**Housing**	Safe environment, price, maintenance, building safety, maintenance of rental housing, provision of and service for houses for the senior
4	**Social Participation**	Places to host events and activities, frequency of such events and activities, ease of participation therein, cost of participation, variety of their contents, exchanges between generations
5	**Respect and Social Inclusion**	Understanding the views of senior citizens, negative images towards and discrimination against the elderly
6	**Civic Participation and Employment**	Participation in volunteer work, diverse choices of employment, support for starting a business
7	**Communication and Information**	Expansion of communication systems, extensive information distribution, sending information/programs for the elderly, user convenience of checking text

		messages, concise and easy-to-understand expressions
8	**Community Support and Health Services**	Provision of medical/health/welfare services, convenience of using welfare facilities, provision of information on medical/health/welfare services, promotion of community welfare activities

○ Based on this framework, the survey to evaluate Nonsan's age-friendliness level is formulated as below:

<Table 56> Detailed Evaluation Checklist for Nonsan's Age-Friendliness Level

No.	Area	No. of Items	Survey Questions
1	**Outdoor Spaces and Buildings**	8	Public facilities are clean and comfortable. (Public facilities, such as public restrooms)
			Green areas are well-organized and constantly managed. (Afforestation, etc.)
			There is a park nearby, and the park is well maintained. (Ecological parks, city parks, etc.)
			There is an outdoor recreational area for senior citizens. (Hiking trails, sports facilities, etc.)
			Sidewalks are slip-resistant and are wide enough for wheelchairs.
			It is easy to cross at a crosswalk because it tells you when to cross with a sound or a shape.
			Drivers drive safe and put pedestrians first.
			Public buildings have elevators, it is easy to walk even for those with mobility difficulties because their floor is not slippery, and wheelchairs can be used in the buildings.
2	**Transportation**	7	Public transportation is stable and its arrival time is accurate.
			Public transportation vehicles are clean, well-maintained, and easily accessible, and people respect priority seating for the senior.
			Bus stops are conveniently located, safe, and clean and have adequate number of seats.
			There are public parking lots where even senior citizens can park easily.
			It is convenient to use a taxi.
			Buses are available for those who live in unserviced areas or for those who have disabilities. ("Happy buses," vehicles for those who find it difficult to use the public transportation system)
			Public transportation fares are appropriate.

No.	Area	No. of Items	Survey Questions
3	Housing	6	Residential areas are safe. (Streetlight installation, security patrol, etc.)
			Safety of buildings and housing prices are appropriate.
			There are services to support housing management. (Support for home repair, etc.)
			Public and private rental housings are clean, well-maintained and safe.
			Support is provided for senior citizens in the vulnerable social group to move into rental housing.
			Cultural activities or education are provided to promote safety prevention.
4	Social Participation	6	Events and programs are organized at the town level, so it is easy to participate.
			There are learning programs for senior citizens. (Lifelong education, literacy education, etc.)
			You can participate in activities or attractions at a reasonable cost.
			Good information is provided about activities or events.
			A variety of programs are run for senior citizens. (Small libraries, yoga, music programs, etc.)
			There are inter-generational integration programs, in which people of all generations can participate.
5	Respect and Social Inclusion	4	The opinions of senior citizens are constantly asked for regarding how to provide appropriate services for them.
			People around you are kind and respectful to the elderly without prejudice.
			Programs or events are organized to better understand and respect senior citizens.
			The contributions to the community that senior citizens have made in the past and now are recognized.
6	Civic Participation and Employment	4	Volunteer services are provided for senior citizens going through some difficulties.
			Information and counseling services are provided for senior citizens regarding employment. (Support at Senior Career Center, etc.)
			Citizens show interest and participate in the programs run for the elderly.
			Support is provided for senior citizens to start a business.
7	Communication and Information	4	You can use computers and the internet for free or at low prices in public spaces, such as government buildings and libraries.
			Services related to senior citizens are well promoted (online and offline).
			Information materials provided by public and private institutions are in large print, and explanations on them are easy to understand.
			Computer education programs are provided. (Citizen IT Education)

No.	Area	No. of Items	Survey Questions
8	Community Support and Health Services	5	Health services are provided for the elderly. (Health care center, health insurance premium support, etc.)
			Hospitals, public health centers and welfare facilities are conveniently located.
			Visiting services are provided for those who have mobility problems.
			Services are provided for local senior citizens. (Sharing side dishes, lunch box delivery, etc.)
			Services are provided to prevent and manage dementia for the elderly.
Total		44	

3. Survey Method

◦ This survey was targeted on the senior citizens living in Nonsan. It aimed to examine difficulties they have faced in performing daily activities, based on which the strategies to be certified as an age-friendly city would be established.

◦ Survey method: Face-to-face survey with interviewers on April 4-6, 2018

◦ Survey target and sampling: Quota sampling per administrative district (eup, myeon and dong) of 500 senior citizens living in Nonsan was used. A structured survey was used to enable the

<Table 57> Sample Size & Recovery Rate

District	No. of Population Sample	No. of Surveys (Standard Assignment)	Recovery Rate(%)
Total	126,379	500	75.04
Ganggyeong-eup	9,608	38	76.3
Yeonmu-eup	15,039	59	59.3
Seongdong-myeon	4,991	20	80.0
Gwangseok-myeon	4,825	19	57.9
Noseong-myeon	3,487	14	78.6
Sangwol-myeon	4,024	16	75.0
Bujeok-myeon	3,988	16	68.8

Yeonsan-myeon	6,791	27	66.7
Beolgok-myeon	2,710	11	100.0
Yangchon-myeon	7,037	28	64.3
Gayagok-myeon	3,919	16	100.0
Eunjin-myeon	4,739	19	78.9
Chaeun-myeon	2,597	10	100.0
Chwiam-dong	34,478	136	58.8
Buchang-dong	18,146	72	61.1

generation of statistics. (272 copies were actually analyzed.)

4. Analysis Method

- The raw data went through editing and coding processes and processed with the SPSS program (Statistical Package for the Social Sciences).
- The surveys with a lot of missing responses were excluded. 272 surveys in total were used for the analysis.
- Frequency analysis, descriptive statistics analysis, and regression analysis have been used as analytic techniques.

Section2. Diagnosis of Nonsan's Level of Age-Friendliness

1. Response Reliability for the Eight Areas

- The reliability levels of the responses for all eight areas were examined. All of them showed the value of Cronbach's alpha being 0.6 or above, which means that the responses given are reliable.

<Table 58> Reliability of the Eight Areas

Area	Reliability
Outdoor Spaces and Buildings	0.805
Transportation	0.761
Housing	0.768
Social Participation	0.848
Respect and Social Inclusion	0.837
Civic Participation and Employment	0.748
Communication and Information	0.679
Community Support and Health Services	0.723

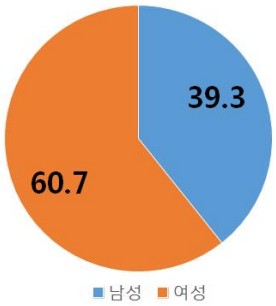
2. General Characteristics of the Respondents

1) Gender

○ More respondents were female as 39.3% of the respondents was male while 60.7% was female.

<Table 59> Gender of Respondents

Classification	No. of Respondents	Percentage (%)
Male	107	39.3
Female	165	60.7
Total	272	100.0

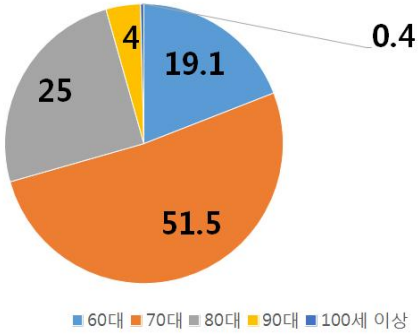


2) Age Group

○ The dominant age group of the respondents was 70-79, taking account for 51.5% of the total respondents, followed by the octogenarians (25.0%), and the sexagenarians (19.1%). In other words, the septuagenarians held a majority of the respondents.

<Table 60> Age of Respondents

Classification	No. of Respondents	Percentage (%)
60-69	52	19.1
70-79	140	51.5
80-89	68	25.0
90-99	11	4.0
100 or above	1	0.4
Total	272	100.0

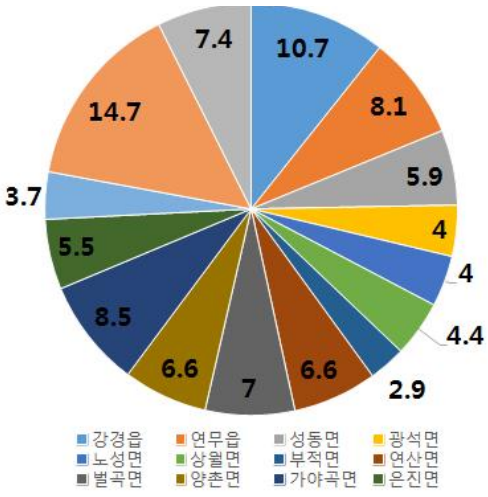


3) Residence

○ Residence was looked into as one of the general characteristics of the respondents. Chwiam-dong ranked the highest with the response rate of 14.7%, followed by Ganggyeong-eup and Gayagok-myeon, taking account of 10.7% and 8.5%, respectively.

<Table 61> Residence of Respondents

Classification	No. of Respondents	Percentage(%)
Ganggyeong-eup	29	10.7
Yeonmu-eup	22	8.1
Seongdong-myeon	16	5.9
Gwangseok-myeon	11	4.0
Noseong-myeon	11	4.0
Sangwol-myeon	12	4.4
Bujeok-myeon	8	2.9
Yeonsan-myeon	18	6.6
Beolgok-m	19	7.0



yeon		
Yangchon-myeon	18	6.6
Gayagok-myeon	23	8.5
Eunjin-myeon	15	5.5
Chaeun-myeon	10	3.7
Chwiam-dong	40	14.7
Buchang-dong	20	7.4
Total	272	100.0

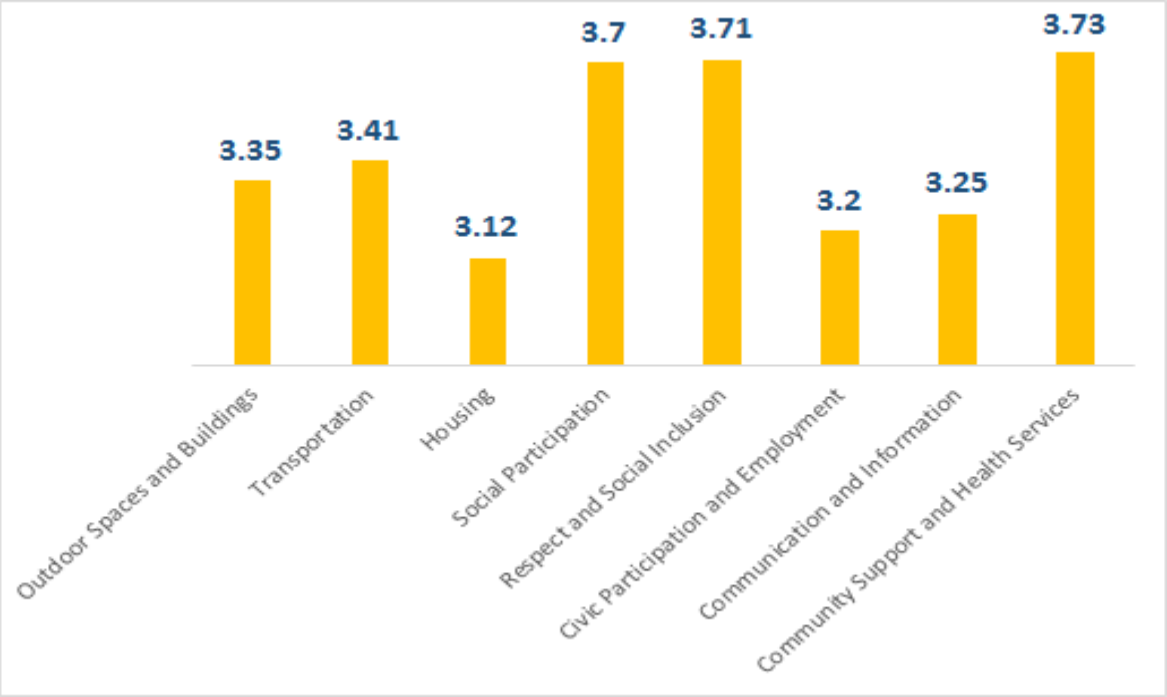
3. Level of Age-Friendliness - Analysis Result

1) Averages of the Eight Areas

○ The averages of the eight areas demonstrated that Nonsan's level of age-friendliness was above the average. In particular, its age-friendliness levels in Community Support and Health Services, Respect and Social Inclusion, and Social Participation areas were evaluated to be good, between average and excellent.

- Community Support and Health Services (3.73) > Respect and Social Inclusion (3.71) > Social Participation (3.70) > Transportation (3.41) > Outdoor Spaces and Buildings (3.35) > Communication and Information (3.25) > Civic Participation and Employment (3.20) > Housing (3.12) ※ on a 5-point scale

<Exhibit 50> Average of the Eight Areas



2) Subsection Averages by Area

(1) Age-Friendliness Level of Outdoor Spaces and Buildings (Average: 3.35)

- Looking at the subsection averages of Outdoor Spaces and Buildings, "comfortable public facilities" ranked the first with an average of 3.83, followed by safety in transportation highlighting "safe driving and pedestrians first" (3.65) and "well-organized and managed green areas" (3.64).
- However, the rest of the items showed the scores below the overall average of this area, which means that the city is required to make improvements in these parts: outdoor recreational areas for senior citizens (3.29), convenience of public buildings (3.27), creation and management of parks (3.25), slip-resistant and sufficiently wide sidewalks (3.04) and convenience related to crosswalks (2.85).

<Table 62> Subsection Average for Age-Friendliness Level of Outdoor Spaces and Buildings

Classification	Average (out of 5)	Standard Deviation
Public facilities are clean and comfortable. (Public facilities, such as public restrooms)	3.83	1.059
Drivers drive safe and put pedestrians first.	3.65	1.107
Green areas are well-organized and constantly managed. (Afforestation, etc.)	3.64	1.108
There is an outdoor recreational area for senior citizens. (Hiking trails, sports facilities, etc.)	3.29	1.263
Public buildings have elevators, it is easy to walk even for those with mobility difficulties because their floor is not slippery, and wheelchairs can be used in the buildings.	3.27	1.223
There is a park nearby, and the park is well maintained. (Ecological parks, city parks, etc.)	3.25	1.247
Sidewalks are slip-resistant and are wide enough for wheelchairs.	3.04	1.313
It is easy to cross at a crosswalk because it tells you when to cross with a sound or a shape.	2.85	1.367

(2) Age-Friendliness Level of Transportation (Average: 3.41)

◦ According to the subsection averages for Transportation, "appropriate public transportation fares" came into the first, hitting an average of 3.95, followed by "management and accessibility of public transportation" with an average of 3.73. Moreover, the items such as "stability and accurate arrival time of public transportation (3.64)," "convenience of bus stops (3.54)" and "convenience of using taxis (3.51)" scored the averages higher than the overall average of this area (3.41).

◦ However, "public parking lots for senior citizens (2.99)" and "bus operation for those living in unserviced areas and for the disabled (2.54)" got low scores.

<Table 63> Subsection Average for Age-Friendliness Level of Transportation

Classification	Average (out of 5)	Standard Deviation
Public transportation fares are appropriate.	3.95	1.012
Public transportation vehicles are clean, well-maintained, and easily accessible, and people respect priority seating for the senior.	3.73	1.033
Public transportation is stable and its arrival time is accurate.	3.61	1.094
Bus stops are conveniently located, safe, and clean and have adequate number of seats.	3.54	1.172
It is convenient to use a taxi.	3.51	1.066
There are public parking lots where even senior citizens can park easily.	2.99	1.355
Buses are available for those who live in unserviced areas or for those who have disabilities. ("Happy buses," vehicles for those who find it difficult to use the public transportation system)	2.54	1.316

(3) Age-Friendliness Level of Housing (Average: 3.12)

- The subsection averages of Housing demonstrated that "safety of residential areas" received the highest score of 3.85. Other above-average items included "cultural activities or education to promote safety prevention (3.44)" and "safety of buildings and appropriate housing prices (3.39)," which had the scores higher than the overall average of this area (3.12).
- Meanwhile, the items such as "management of public and private rental housings (2.73)," "services supporting housing management (2.70)" and "support for the vulnerable social group to move into rental housing (2.60)" had the below-average scores.

<Table 64> Subsection Average for Age-Friendliness Level of Housing

Classification	Average (out of 5)	Standard Deviation
Residential areas are safe. (Streetlight installation, security patrol, etc.)	3.85	0.927
Cultural activities or education are provided to promote safety prevention.	3.44	1.100
Safety of buildings and housing prices are appropriate.	3.39	0.954
Public and private rental housings are clean, well-maintained and safe.	2.73	1.299
There are services to support housing management. (Support for home repair, etc.)	2.70	1.271
Support is provided for senior citizens in the vulnerable social group to move into rental housing.	2.60	1.330

(4) Age-Friendliness Level of Social Participation (Average: 3.70)

- Looking at the subsection averages of Social Participation, "learning programs" got a very high score of 4.07. Other high-scored items included "a variety of programs (3.87)," "town-level events or programs (3.72)," and "provision of information about activities or events (3.71)".
- Although "reasonable cost (3.67)" had an average lower than the overall average of this area (3.70), the difference was insignificant.
- "Inter-generational integration programs" scored 3.15, which is 5.5 points lower than the overall average. Although it is above "mediocre (2.5)," it still has a relatively low score compared to other items in this Area 4.

<Table 65> Subsection Average for Age-Friendliness Level of Social Participation

Classification	Average (out of 5)	Standard Deviation
There are learning programs for senior citizens. (Lifelong education, literacy education, etc.)	4.07	0.811
A variety of programs are run for senior citizens. (Small libraries, yoga, music programs, etc.)	3.87	0.955
Events and programs are organized at the town level, so it is easy to participate.	3.72	0.996
Good information is provided about activities or events.	3.71	0.953
You can participate in activities or attractions at a reasonable cost.	3.67	1.078
There are inter-generational integration programs, in which people of all generations can participate.	3.15	1.321

(5) Age-Friendliness Level of Respect and Social Inclusion (Average: 3.71)

- According to the subsection averages for Respect and Social Inclusion, "unprejudiced kindness" showed a high score of 3.98.
- "Programs to respect senior citizens (3.68)," "recognition of contributions to the community of the elderly (3.62)," and "collection of senior citizens' views (3.54)" followed; however, except for the item with the highest score, the remaining items got the points below the overall average of this area.

<Table 66> Subsection Average for Age-Friendliness Level of Respect and Social Inclusion

Classification	Average (out of 5)	Standard Deviation
People around you are kind and respectful to the elderly without prejudice.	3.98	1.033
Programs or events are organized to better understand and respect senior citizens.	3.68	0.961
The contributions to the community that senior citizens have made in the past and now are recognized.	3.62	1.133
The opinions of senior citizens are constantly asked for regarding how to provide appropriate services for them.	3.54	1.083

(6) Age-Friendliness Level of Civic Participation and Employment (Average: 3.20)

- The subsection averages of Civic Participation and Employment demonstrated that "volunteer services for senior citizens going through some difficulties" scored a higher-than-average score of 3.76 while the rest of the items had low scores: "citizens' interest and participation in the programs for the elderly (3.25)," "information and counseling services for senior employment (3.06)," and "support for starting a business (2.71)".
- In particular, the support for senior citizens to start their own business had a large gap of almost 1.0 point compared to the volunteer services that got the highest score in this Area 6.

<Table 67> Subsection Average for Age-Friendliness Level of Civic Participation and Employment

Classification	Average (out of 5)	Standard Deviation
Volunteer services are provided for senior citizens going through some difficulties.	3.76	0.975
Citizens show interest and participate in the programs run for the elderly.	3.25	1.198
Information and counseling services are provided for senior citizens regarding employment. (Support at Senior Career Center, etc.)	3.06	1.329
Support is provided for senior citizens to start a business.	2.71	1.334

(7) Age-Friendliness Level of Communication and Information (Average: 3.25)

- Looking at the subsection averages of Communication and Information, "service promotion" ranked the first with an average of 3.48, followed by "legibility of information materials," getting 3.35.
- "Computer education" got 3.25, which is the same as the overall average of this area while "convenience of using computers or internet" got a low score of 2.93.

<Table 68> Subsection Average for Age-Friendliness Level of Communication and Information

Classification	Average (out of 5)	Standard Deviation
Services related to senior citizens are well promoted (online and offline).	3.48	1.168
Information materials provided by public and private institutions are in large print, and explanations on them are easy to understand.	3.35	1.006
Computer education programs are provided. (Citizen IT Education)	3.25	1.245
You can use computers and the internet for free or at low prices in public spaces, such as government buildings and libraries.	2.93	1.339

(8) Age-Friendliness Level of Community Support and Health Services (Average: 3.73)

- According to the subsection averages of Community Support and Health Services, "health services" got a very high score of 4.09, followed by "dementia prevention and management services" and "accessibility to hospitals, public health centers and welfare facilities", getting 3.85 and 3.83 points, respectively.

○ However, "visiting services" scored 3.69, lower than the overall average of Area 8 (3.73), and "Services for local senior citizens" scored 3.20, or the lowest in this area.

<Table 69> Subsection Average for Age-Friendliness Level of Community Support and Health Services

Classification	Average (out of 5)	Standard Deviation
Health services are provided for the elderly. (Health care center, health insurance premium support, etc.)	4.09	.854
Services are provided to prevent and manage dementia for the elderly.	3.85	.900
Hospitals, public health centers and welfare facilities are conveniently located.	3.83	1.056
Visiting services are provided for those who have mobility problems.	3.69	.892
Services are provided for local senior citizens. (Sharing side dishes, lunch box delivery, etc.)	3.20	.944

3) Averages of the Eight Areas by Gender

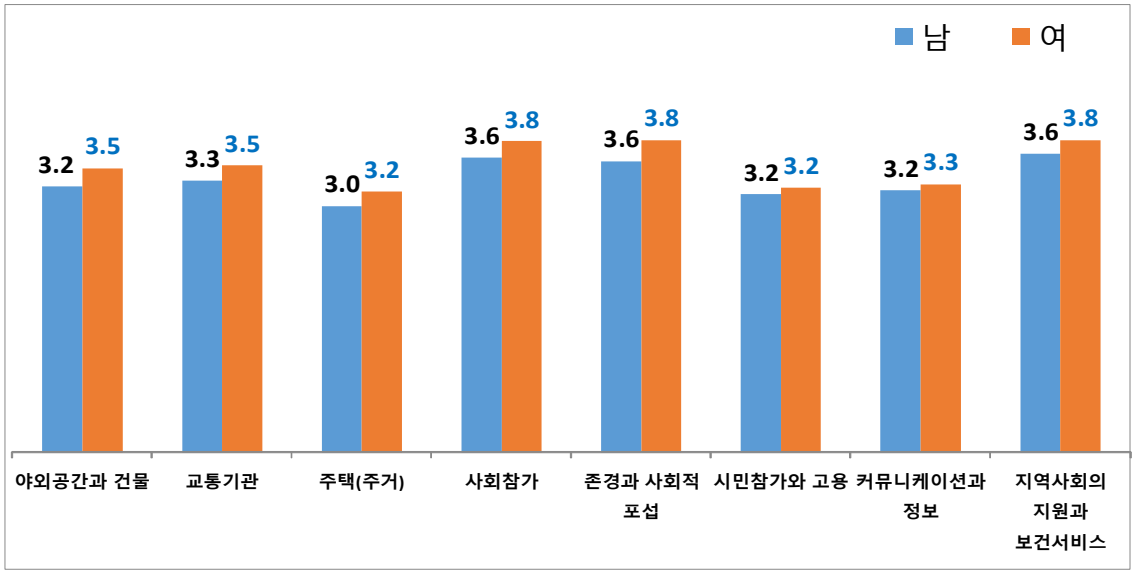
○ The averages of the areas by gender demonstrated that the averages of the scores given by the female respondents were equal to or higher than those by the male respondents in all eight areas. However, the gap is very small, which makes it safe to state that the difference in the averages in the eight areas between the two genders seems little.

○ Both genders gave high scores to three areas: Social Participation, Respect and Social Inclusion, and Community Support and Health Services.

<Table 70> Average by Area by Gender

Classification	Male		Female	
	Average	Standard Deviation	Average	Standard Deviation
Outdoor Spaces and Buildings	3.24	.752	3.47	.786
Transportation	3.31	.679	3.50	.765
Housing	3.01	.668	3.18	.862
Social Participation	3.59	.713	3.79	.802
Respect and Social Inclusion	3.55	.916	3.81	.821
Civic Participation and Employment	3.15	.896	3.23	.935
Communication and Information	3.19	.944	3.27	.770
Community Support and Health Services	3.64	.643	3.81	.617

<Exhibit 51> Average by Area by Gender



4) Averages of the Eight Areas by Age

○ According to the averages of the areas by age, those in their 60s and 70s gave the highest point to Community Support and Health Services (3.59 and 3.76, respectively) while those in their 80s and 90s ranked Social Participation (3.93) and Respect and Social Inclusion (4.36), respectively. This result showed the different

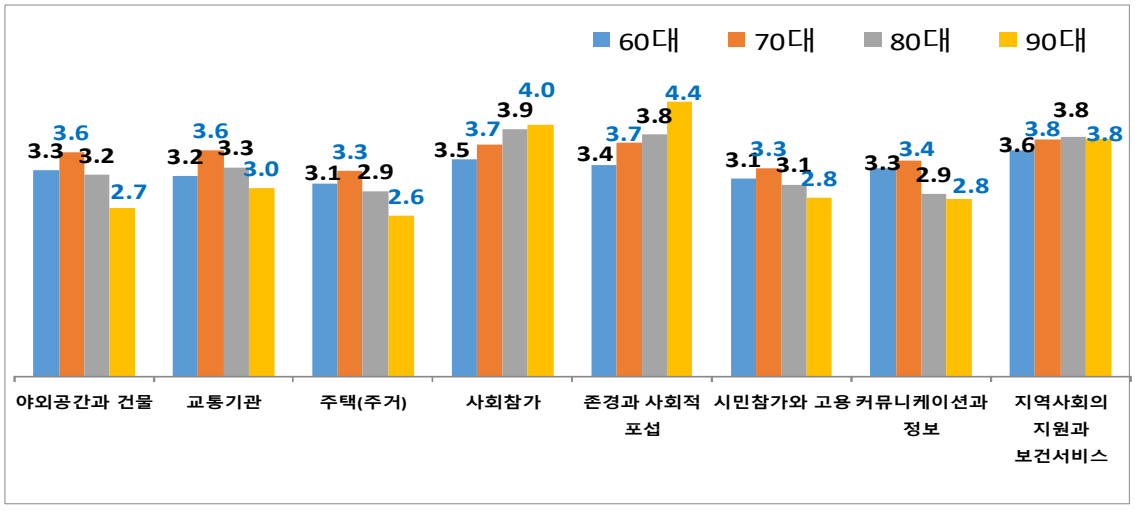
views for different age groups.

○ In terms of the overall average of all the areas by age, the septuagenarians marked the highest average (3.54), followed by the octogenarians (3.38), the sexagenarians (3.30) and the nonagenarians (3.25).

<Table 71> Averages by Area by Age

Classification	60-69		70-79		80-89		90-99	
	Average	Standard Deviation	Average	Standard Deviation	Average	Standard Deviation	Average	Standard Deviation
Outdoor Spaces and Buildings	3.28	.667	3.56	.795	3.21	.757	2.68	.492
Transportation	3.18	.645	3.59	.779	3.32	.662	2.99	.406
Housing	3.06	.611	3.26	.831	2.94	.788	2.56	.455
Social Participation	3.45	.663	3.68	.782	3.93	.765	4.00	.760
Respect and Social Inclusion	3.36	.689	3.71	.871	3.84	.936	4.36	.342
Civic Participation and Employment	3.14	.568	3.31	.937	3.05	1.001	2.84	1.246
Communication and Information	3.30	.564	3.42	.807	2.90	.975	2.82	.895
Community Support and Health Services	3.59	.576	3.76	.677	3.81	.590	3.78	.517
Total Average	3.30		3.54		3.38		3.25	

<Exhibit 52> Averages by Area by Age



5) Averages of the Eight Areas by District

(1) Ganggyeong-eup

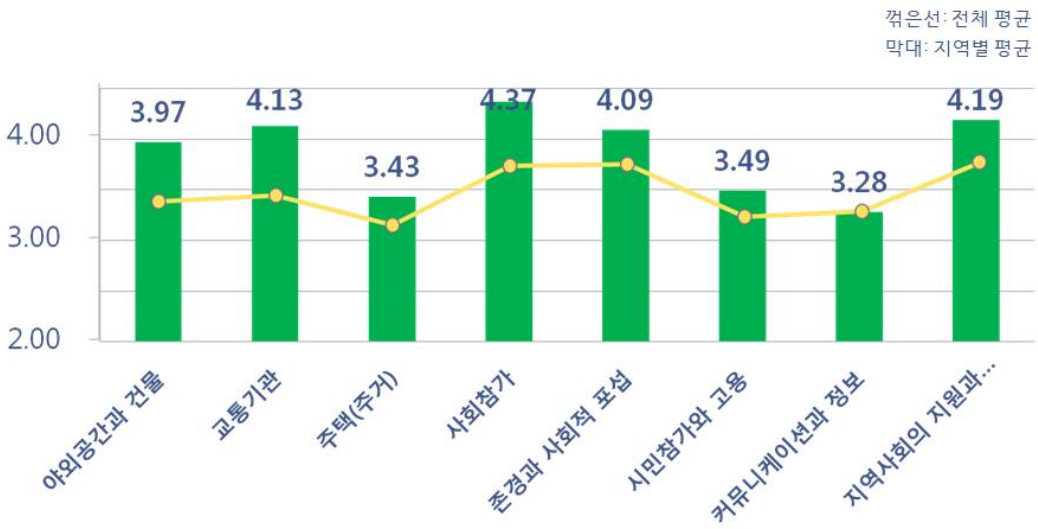
◦ The survey result showed that the age-friendliness levels of Ganggyeong-eup in the eight areas were the highest in Outdoor Spaces and Buildings (3.34), followed by Social Participation (3.29), Respect and Social Inclusion (3.14), Transportation and Housing (3.06), Communication and Information (3.03), and Civic Participation and Employment (2.98).

◦ Compared to the overall averages of the entire city, in Ganggyeong-eup, all the areas were below average, which means that it would have a lot to improve in terms of the level of age-friendliness. In particular, for the area of Community Support and Health Services, the gap between its average and the entire city's average was big, being approximately 0.8p. With this in mind, it is deemed necessary to seek measures to expand citizens' interest in senior citizens and services for them in the local community.

(2) Yeonmu-eup

- The survey result showed that the age-friendliness levels of Yeonmu-eup in the eight areas were the highest in Social Participation (4.37), followed by Community Support and Health Services (4.19), Transportation (4.13), Respect and Social Inclusion (4.09), Outdoor Spaces and Buildings (3.97), Civic Participation and Employment (3.49), Housing (3.43), and Communication and Information (3.28).
- Compared to the overall averages of the entire city, this district scored above the average except for Communication and Information. Still, its gap with the entire city's average was merely 0.3p, which means that Yeonmu-eup's age-friendliness level is above the average compared to Nonsan's level of age-friendliness.

<Exhibit 54> Yeonmu-eup



(3) Seongdong-myeon

- The survey result showed that the age-friendliness levels of Seongdong-myeon in the eight areas were the highest in Community Support and Health Services (3.84), followed by Social Participation (3.46), Respect and Social Inclusion (3.45), Civic Participation and Employment (3.27), Outdoor Spaces and Buildings (3.25), Transportation (3.23), Communication and Information (3.22), and Housing (3.14).
- Compared to the overall averages of the entire city, Seongdong-myeon scored the points higher than the average in three areas: Housing, Civic Participation and Employment, and Community Support and Health Services. The remaining five areas came below average. Moreover, even the above-average areas had small gaps when compared with the entire city's average: the gaps in the areas of Housing, Civic Participation and Employment, and Community Support and Health Services were 0.2p, 0.7p and 0.11p, respectively.
- Therefore, it is evaluated that overall, Seongdong-myeon's level of age-friendliness is lower than the entire city's age-friendliness level.

<Exhibit 55> Seongdong-myeon

(4) Gwangseok-myeon

○ The survey result showed that the age-friendliness levels of Gwangseok-myeon in the eight areas were the highest in Respect and Social Inclusion (3.98), followed by Social Participation (3.95), Civic Participation and Employment (3.91), Transportation (3.91), Housing (3.90), Community Support and Health Services (3.84), Outdoor Spaces and Buildings (3.78), and Communication and Information (3.67).

○ Compared to the overall averages of the entire city, Gwangseok-myeon scored above average in all eight areas, which means that its age-friendliness level is higher than that of the entire city.

<Exhibit 56> Gwangseok-myeon

(5) Noseong-myeon

- The survey result showed that the age-friendliness levels of Noseong-myeon in the eight areas were the highest in Communication and Information (3.64), followed by Community Support and Health Services (3.56), Social Participation (3.47), Outdoor Spaces and Buildings (3.44), Respect and Social Inclusion (3.43), Civic Participation and Employment (3.32), Transportation (3.30), and Housing (3.14).
- Compared to the overall averages of the entire city, this district scored above average in five areas: Outdoor Spaces and Buildings, Housing, Civic Participation and Employment, Communication and Information, and Community Support and Health Services.

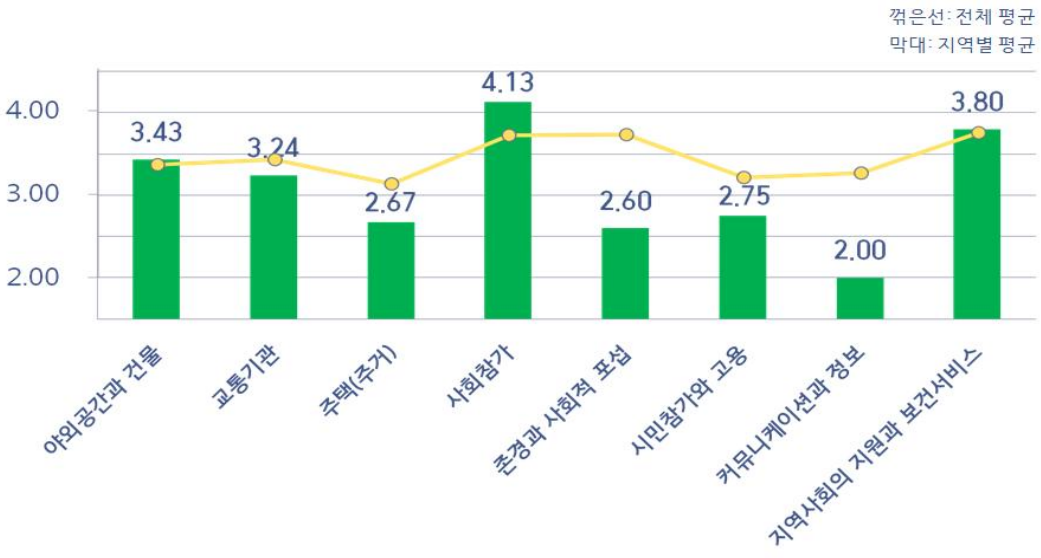
<Exhibit 57> Noseong-myeon

(6) Sangwol-myeon

○ The survey result showed that the age-friendliness levels of Sangwol-myeon in the eight areas were the highest in Social Participation (4.13), followed by Community Support and Health Services (3.80), Outdoor Spaces and Buildings (3.43), Transportation (3.24), Civic Participation and Employment (2.75), Housing (2.67), Respect and Social Inclusion (2.60), and Communication and Information (2.00).

○ Compared to the overall averages of the entire city, Sangwol-myeon got the above-average scores in three areas: Social Participation, Outdoor Spaces and Buildings, and Community Support and Health Services. In particular, its average in Social Participation is higher than the entire city's by a whopping 0.43p.

<Exhibit 58> Sangwol-myeon



(7) Bujeok-myeon

○ The survey result showed that the age-friendliness levels of Bujeok-myeon in the eight areas were the highest in Community Support and Health Services (3.85), followed by Communication and Information (3.78), Social Participation (3.58), Respect and Social Inclusion (3.50), Housing (3.48), Outdoor Spaces and Buildings (3.47), Transportation (3.41), and Civic Participation and Employment (3.22).

○ Compared to the overall averages of the entire city, this district had scores lower than the average in three areas: Social Participation, Respect and Social Inclusion, and Civic Participation and Employment.

<Exhibit 59> Bujeok-myeon

(8) Yeonsan-myeon

○ The survey result showed that the age-friendliness levels of Yeonsan-myeon in the eight areas were the highest in Respect and Social Inclusion (4.03), followed by Community Support and Health Services (3.78), Transportation (3.48), Outdoor Spaces and

Buildings (3.42), Communication and Information (3.25), Social Participation (2.80), Housing (2.68), and Civic Participation and Employment (2.44).

○ Compared to the overall averages of the entire city, this district scored higher than the average in three areas: Outdoor Spaces and Buildings, Transportation, and Community Support and Health Services. However, its average in the area of Social Participation, which scored very high in the entire city's average, was lower than the city's average by approximately 0.9p.

<Exhibit 60> Yeonsan-myeon

(9) Beolgok-myeon

○ The survey result showed that the age-friendliness levels of Beolgok-myeon in the eight areas were the highest in Social Participation (4.51), followed by Respect and Social Inclusion (4.47), Community Support and Health Services (4.36), Communication and Information (3.17), Outdoor Spaces and Buildings (2.93), Transportation (2.79), Housing (2.37), and Civic Participation and Employment (2.04).

○ Compared to the overall averages of the entire city, this district

had the above-average scores in three areas: Social Participation, Respect and Social Inclusion, and Community Support and Health Services. Beolgok-myeon scored higher than the city's average in each of the above areas by approximately 0.8p, approximately 0.7p, and approximately 0.6p, respectively.

<Exhibit 61> Beolgok-myeon

(10) Yangchon-myeon

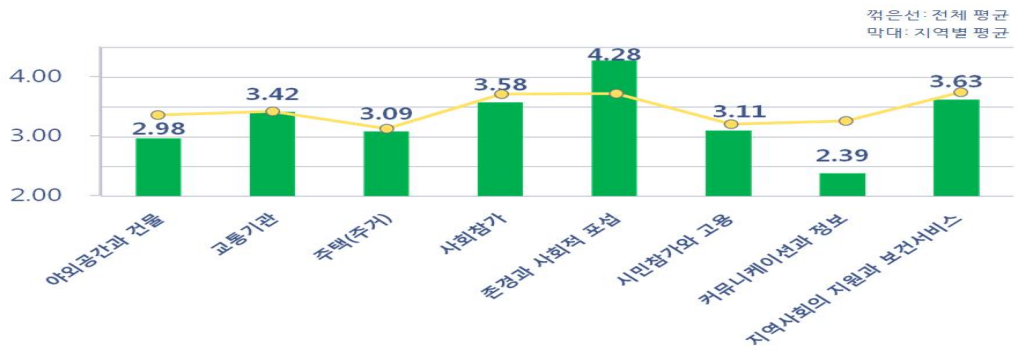
- The survey result showed that the age-friendliness levels of Yangchon-myeon in the eight areas were the highest in Respect and Social Inclusion (4.49), followed by Civic Participation and Employment (4.47), Social Participation (4.24), Community Support and Health Services (3.97), Communication and Information (3.81), and Transportation (3.59). Housing and Outdoor Spaces and Buildings scored the lowest, or 2.83.
- Compared to the overall averages of the entire city, this district scored higher than the average in all areas except two: Outdoor Spaces and Buildings, and Housing. In particular, it is worth noting that its score in Civic Participation and Employment is higher than the city's score by approximately 1.2p.

<Exhibit 62> Yangchon-myeon

(11) Gayagok-myeon

- The survey result showed that the age-friendliness levels of Gayagok-myeon in the eight areas were the highest in Respect and Social Inclusion (4.28), followed by Community Support and Health Services (3.63), Social Participation (3.58), Transportation (3.42), Civic Participation and Employment (3.11), Housing (3.09), Outdoor Spaces and Buildings (2.98), and Communication and Information (2.39).
- Compared to the overall averages of the entire city, this district had the above-average scores in two areas: Transportation, and Respect and Social Inclusion by 0.1p and approximately 0.5p, respectively.

<Exhibit 63> Gayagok-myeon

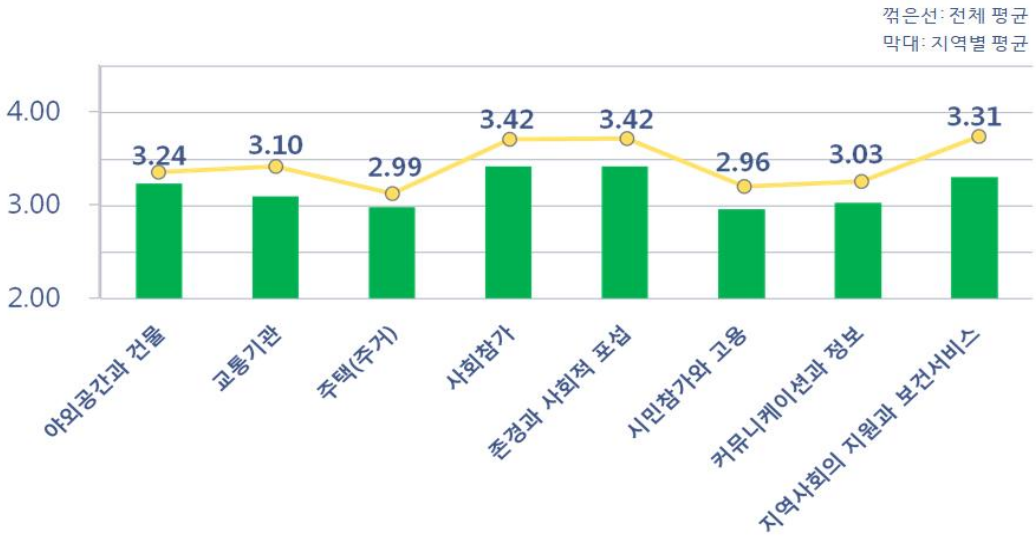


(12) Eunjin-myeon

○ The survey result showed that the age-friendliness levels of Eunjin-myeon in the eight areas were the highest in Social Participation and Respect and Social Inclusion, both scoring 3.42, followed by Community Support and Health Services (3.31), Outdoor Spaces and Buildings (3.24), Transportation (3.10), Communication and Information (3.03), Housing (2.99), and Civic Participation and Employment (2.96).

○ Compared to the overall averages of the entire city, Eunjin-myeon scored below the average in all areas, which means that it would have a lot to improve in terms of the level of age-friendliness.

<Exhibit 64> Eunjin-myeon



(13) Chaeun-myeon

○ The survey result showed that the age-friendliness levels of Chaeun-myeon in the eight areas were the highest in Community Support and Health Services (3.74), followed by Social Participation (3.72), Respect and Social Inclusion and

Communication and Information (both 3.38), Transportation (3.24), Outdoor Spaces and Buildings (3.10), Civic Participation and Employment (3.05), and Housing (2.97).

○ Compared to the overall averages of the entire city, this district scored higher than the average in the areas of Social Participation, Communication and Information, and Community Support and Health Services; however, the difference between the two averages is insignificant.

<Exhibit 65> Chaeun-myeon

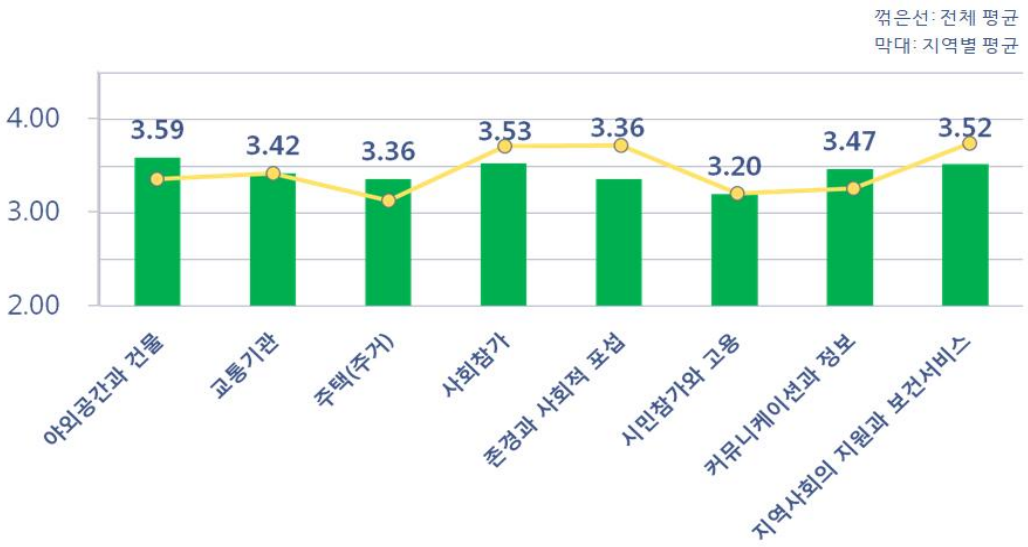
(14) Chwiam-dong

○ The survey result showed that the age-friendliness levels of Chwiam-dong in the eight areas were the highest in Outdoor Spaces and Buildings (3.59), followed by Social Participation (3.53), Community Support and Health Services (3.52), Communication and Information (3.47), Transportation (3.42), Housing and Respect and Social Inclusion (both 3.36), and Civic Participation and Employment (3.20).

○ Compared to the overall averages of the entire city, this district scored higher than the average in three areas: Transportation,

Housing, and Communication and Information. However, the difference between the two averages is not so big.

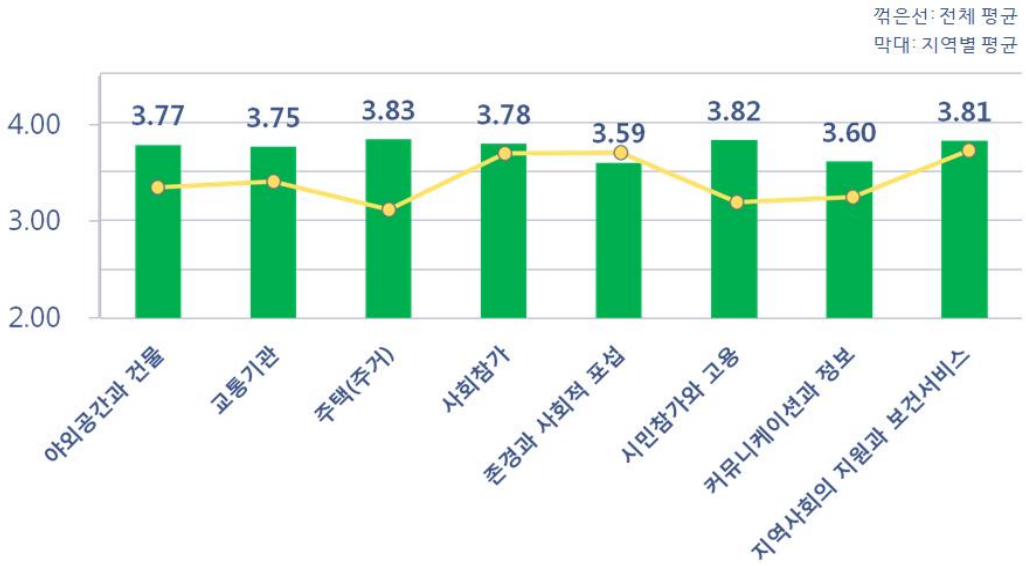
<Exhibit 66> Chwiam-dong



(15) Buchang-dong

- The survey result showed that the age-friendliness levels of Buchang-dong in the eight areas were the highest in Housing (3.83), followed by Civic Participation and Employment (3.82), Community Support and Health Services (3.81), Social Participation (3.78), Outdoor Spaces and Buildings (3.77), Transportation (3.75), Communication and Information (3.60), and Respect and Social Inclusion (3.59).
- Compared to the overall averages of the entire city, this district scored higher-than-average points in all areas except for Respect and Social Inclusion. This confirms that Buchang-dong's level of age-friendliness is relatively higher than the entire city's average.

<Exhibit 67> Buchang-dong



○ The highest and lowest scores of all local districts were compared to show difference by district.

- In particular, Community Support and Health Services was ranked the highest in Seongdong-myeon, Bujeok-myeon, and Chaeun-myeon while it was ranked the lowest in Ganggyeong-eup. Also, Communication and Information got the lowest score in Yeonmu-eup, Gwangseok-myeon, Sangwol-myeon, and Gayagok-myeon while it came at the top in Noseong-myeon. In other words, there seemed to be gap between districts even in the same city of Nonsan.

<Table 72> Best and Worst Areas by District

Classification	Best	Worst
Ganggyeong-eup	Outdoor Spaces and Buildings	Community Support and Health Services
Yeonmu-eup	Social Participation	Communication and Information
Seongdong-myeon	Community Support and Health Services	Housing
Gwangseok-myeon	Respect and Social Inclusion	Communication and Information
Noseong-myeon	Communication and Information	Housing
Sangwol-myeon	Social Participation	Communication and Information

Bujeok-myeon	Community Support and Health Services	Civic Participation and Employment
Yeonsan-myeon	Respect and Social Inclusion	Civic Participation and Employment
Beolgok-myeon	Social Participation	Civic Participation and Employment
Yangchon-myeon	Respect and Social Inclusion	Outdoor Spaces and Buildings, Housing
Gayagok-myeon	Respect and Social Inclusion	Communication and Information
Eunjin-myeon	Social Participation, Respect and Social Inclusion	Civic Participation and Employment
Chaeun-myeon	Community Support and Health Services	Housing
Chwiam-dong	Outdoor Spaces and Buildings	Civic Participation and Employment
Buchang-dong	Housing	Respect and Social Inclusion

- It was examined which areas came at the top and bottom the most in the districts. "Respect and Social Inclusion" scored the highest in five districts, accounting for approximately 33% of the city. Then, four districts had the highest scores in the area of "Social Participation". In other words, 60% of the city highly rated the two areas of Respect and Social Inclusion, and Social Participation.
- On the other hand, "Civic Participation and Employment" was found to have scored the lowest in five districts, accounting for approximately 33% of the city, and "Housing" in four districts.
- All things considered, it is reasonable to say that the three areas of Community Support and Health Services, Respect and Social Inclusion, and Social Participation are working well while the areas of Housing and Civic Participation and Employment require some improvement. What is more important, though, is that there are gaps among districts even in the same city of Nonsan, and that each district has different areas that are working well or that require improvement. If the city government implements customized policies established by taking these points into

consideration, Nonsan will truly become a practically age-friendly city.

<Table 73> No. of Districts in which the Areas Came at the Top and Bottom

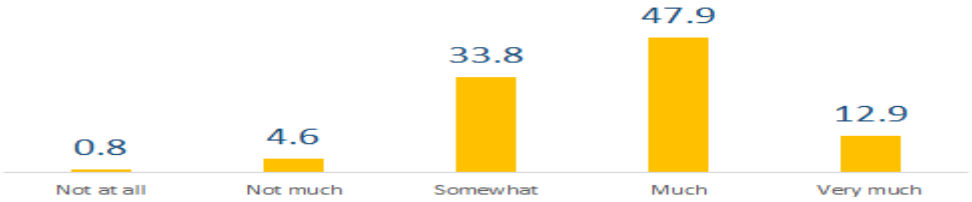
Classification	Top	Bottom
Outdoor Spaces and Buildings	2	1
Transportation	0	0
Housing	1	4
Social Participation	4	0
Respect and Social Inclusion	5	1
Civic Participation and Employment	0	5
Communication and Information	1	4
Community Support and Health Services	3	1

6) Adequacy of Promoting Policy related to Age-Friendly City

○ The respondents were asked to share their views on whether the policies put in place by Nonsan to become an age-friendly city were adequate. "Much" was the most frequent answer, accounting for 47.9%, followed by "Somewhat," accounting for 33.8%. "Very much" was 12.9% while negative answers such as "Not much" and "Not at all" accounted for 4.6% and 0.8%, respectively. Positive ratings were very high.

○ As the city is in the process of preparing to become an age-friendly city, it is beneficial that senior citizens assess its senior policies positively in terms of policy effectiveness and their interest in age-friendly cities.

<Exhibit 68> Views on the Adequacy of Nonsan's Policy Promotion to Become an Age-Friendly City (in %)



○ Looking at what each district thinks about Nonsan's policy promotion, Yeonmu-eup, Seongdong-myeon, Gwangseok-myeon, Sangwol-myeon, Bujeok-myeon, Yangchon-myeon, Gayagok-myeon, and Buchang-dong showed a more positive aspect with a high response rate of "Much." In particular, Beolgok-myeon had the most number of respondents who said "Very much."

<Table 74> Views on the Adequacy of Nonsan's Policy Promotion by District (in %)

Classification	Not at all	Not much	Somewhat	Much	Very much
Ganggyeong-eup	7.7	15.4	69.2	0.0	7.7
Yeonmu-eup	0.0	0.0	9.1	86.4	4.5
Seongdong-myeon	0.0	0.0	25.0	75.0	0.0
Gwangseok-myeon	0.0	0.0	40.0	50.0	10.0
Noseong-myeon	0.0	0.0	54.5	45.5	0.0
Sangwol-myeon	0.0	0.0	0.0	100.0	0.0
Bujeok-myeon	0.0	0.0	12.5	87.5	0.0
Yeonsan-myeon	0.0	0.0	77.8	16.7	5.6
Beolgok-myeon	0.0	0.0	0.0	10.5	89.5
Yangchon-myeon	0.0	0.0	5.6	83.3	11.1
Gayagok-myeon	0.0	0.0	22.7	63.6	13.6
Eunjin-myeon	0.0	25.0	58.3	8.3	8.3
Chaeun-myeon	0.0	10.0	80.0	10.0	0.0
Chwiam-dong	0.0	12.5	53.1	21.9	12.5
Buchang-dong	5.9	5.9	17.6	70.6	0.0

○ As a result of examining the effects of the eight areas on the thoughts of the elderly about the adequacy of Nonsan's policy

implementation, R^2 (Coefficient of determination) stood at 51.4%, and significant factors among the eight areas were Social Participation, Respect and Social Inclusion, Community Support and Health Services.

○ A reasonable interpretation is that all three areas mentioned above have static effects, and therefore the policies related to them affect senior citizens to make a positive evaluation on the city's policy promotion. The three areas are believed to increase the likelihood of creating an age-friendly city.

○ In particular, Social Participation have the most static effect with its standardized coefficient of 0.396. Moreover, although less influential than Social Participation, Community Support and Health Services still exercises a sufficient level of influence on increasing the level of satisfaction of senior citizens with regard to the city's policy implementation with its standardized coefficient being 0.373.

<Table 75> Effects of the Eight Areas on Senior Citizens' Thoughts about the Adequacy of Nonsan's Policy Implementation (R^2=0.514)

Classification	Standardized coefficient	t	Significance probability
Constant		2.971**	0.003
Outdoor Spaces and Buildings	-0.077	-0.870	0.385
Transportation	-0.156	-1.615	0.108
Housing	-0.115	-1.497	0.136
Social Participation	0.396***	5.368	0.000
Respect and Social Inclusion	0.187**	2.935	0.004
Civic Participation and Employment	0.028	0.325	0.746
Communication and Information	0.001	0.007	0.994
Community Support and Health Services	0.373***	4.815	0.000

*P<0.1 **p<0.05 ***p<0.00

◦ Considering the examination on the level of age-friendliness in a comprehensive manner, it would be effective to take two approaches: the three areas of Social Participation, Respect and Social Inclusion, and Community Support and Health Services should be classified as "advanced areas" to be further developed and expanded while the remaining five areas should be classified as "essential areas" for which the foundation will be laid.

Section 3. Selection of Key Tasks[2)]

1. Outdoor Spaces and Buildings

Key Issues	
1	There are not much outdoor recreational areas for senior citizens.
2	It is difficult for the elderly to use various facilities or buildings, and there is a lack of consideration for the elderly who use various services.
3	There are not enough parks that senior citizens can easily access and use to create a nice urban environment to live not only for the elderly but for all citizens.
4	There are safety issues related to crosswalks, such as lack of anti-slip treatments or proper crossing time.
5	Visual and auditory signals are insufficient when using pedestrian crosswalks.

Recreational areas for active seniors

- The elder generations used to be seen as socially and physically vulnerable who need protection and help. However, development of medical technology and changes in the perception of the elderly have given birth to a new group called "active senior," consisting of healthy and active senior citizens.
- However, senior policies and facilities still focus on the elderly as socially weak people. The facilities for the elderly are mostly designed for senior citizens who have mobility issues or who cannot do any activities. They were designed to ease the management of the elderly, not to meet the needs of the actual users.
- The health, social status and economic conditions of senior citizens may change, but their great interest remains in health. The difference, though, is that they are now interested in how to

2) The items that came below average in each area have been chosen as key tasks.

improve the quality of their life, such as maintaining a healthy life and adding vitality to their life, while they used to take interest in "treatments."

- In this regard, Nonsan should arrange spaces not only for "weak seniors," whose main interest is treatment and care, but also for "young, active seniors" so that they can stay healthy and spend their energy.
- Going out to use facilities increases the level of physical activities in everyday life, which not only helps the health of elderly people but also plays an important role in allowing them to move away from social isolation as they get to refresh themselves and participate in social activities (Oh Chan-Ok, 2015).
- However, the higher the age, the lower the mobility. Therefore, the spatial distance between convenience facilities for senior citizens and their living spaces may have a direct effect on the quality of their life. With this in mind, it is effective to provide such convenience spaces for the elderly within local communities.

Buildings and roads full of consideration for senior citizens

- The spaces and facilities that senior citizens visit are connected to their safety. Therefore, in order for Nonsan to become an age-friendly city, it is essential to be considerate of the elderly from the stage of building design.
- In particular, as senior citizens often visit public buildings, they should be equipped with elevators more than anything, have slip-resistant flooring to prevent an accident, and should be wheelchair-accessible.

- Moreover, in order to support senior citizens to lead a life full of vitality, the most important thing is to create an environment in which the elderly can walk safely.
- As elderly people get older, their sensory and perceptual processes decline. Accordingly, they tend not to pay attention to a car coming from behind or to the sound of car horn. They sometimes walk to the center of a road or even cross a road diagonally. Also, they tend not to begin crossing right away even when the light turns green (Kim Kyung-Beom, 2015).
- With this in mind, the characteristics specific to the elderly that are different from younger generations should be taken into consideration. The issues, such as difficulties in using stairs, short crosswalk signal time, and difficulties in recognizing signs, should be addressed as soon as possible.

Creating green spaces for all citizens

- As senior citizens spend a large portion of their day outside their home, the age-friendliness of the living environment of their residential district either improves or reduces the vitality of their life.
- National Survey of Senior Citizens (2014) demonstrated that 79.8% of the elder respondents complained inconvenient living environment of their residential district. It was found that these inconvenient elements were not limited to specific items, but were prevalent in overall living environment.
- Therefore, communities are in need of environment-friendly spaces, where senior citizens can enjoy a relaxed and comfortable life, take some rest together with others outside their home, and spend their day with full of energy and fun.

○ Above all, it is worth noting that walking or strolling takes the biggest portion of the sports or leisure activities of those aged 65 or older, and this is because walking and strolling are the most helpful for the elderly to stay healthy. Considering this, each district should create green spaces or parks, where senior citizens can walk and stroll comfortably, to promote and support doing light exercises in their everyday life.

2. Transportation

Key Issues	
1	There are no public parking lots where even senior citizens can park easily. There is a lack of consideration for senior drivers.
2	There is a lack of buses available for those who live in unserviced areas or for those who have disabilities.

Parking spaces for senior drivers

○ Elder persons are classified as "transportation vulnerable," or a vulnerable group in terms of mobility, due to their disease or degraded physical ability. However, the law currently in force (the Act on Guarantee of Promotion of Convenience of Persons with Disabilities, the Aged, Pregnant Women, Etc.) designates reserved parking areas only for the handicapped. An atmosphere that encourages more consideration for pregnant women has been created recently, resulting in some parking spaces becoming reserved for pregnant women. However, people show relatively low interest in senior drivers.

○ According to the statistics of the National Police Agency, the number of senior drivers aged 65 or older was 2,492,776 in 2016, accounting for 8% of the total drivers and the number of senior drivers aged 70 or older was 1,280,422, accounting for above 4%

of the total drivers. The accidents caused by senior citizens aged 65 or older account for almost 10% of the total accidents.

- Korea faces a situation in which the number of senior drivers is bound to be on a constant rise due to its population structure. Europe and Japan, which entered an aging society before Korea did, have already taken various approaches for senior drivers. In particular, Japan offers intensive training for senior drivers to make sure that they develop safe driving habits, and focuses on enhancing social awareness through policies favorable to them, such as having parking lots reserved for the elderly and issuing stickers indicating the car is driven by a senior driver.
- Ensuring the safety of senior drivers is protecting not only the drivers themselves but also the other people. Nonsan also needs policies considerate of senior drivers.

Removing "blind spots" of public transportation

- When asked when they experienced discrimination, 37.7% out of 729 respondents (or 274.8) said "when they were using public transportation." Also, 17.5% of the total respondents of 10,274 (or 1,797.9) said that "inconvenience related to transportation" was the most inconvenient aspect of their living environment (National Survey of Senior Citizens, 2014).
- Due to its geographical conditions, Nonsan cannot have public transportation operate across the entire city. Also, it is not possible to make a single route connecting the entire city, so it is natural that there are some "blind spots" of public transportation.
- To address this issue, Nonsan operates "Happy Buses" for the unserviced areas. According to the survey on Nonsan's

Age-Friendliness Level, however, respondents pointed out inconvenient means of transportation, which shows that the visible support for the unserviced areas is insufficient; hence, the current support measures should be expanded further. Moreover, as for senior citizens who absolutely need transportation support to go and see doctors, a possible support measure is to provide free shuttle bus services, taking advantage of local welfare agencies or local volunteer workers.

◦ Considering the elderly use public transportation frequently, the provision of senior-friendly traffic information booklets that can be easily read by the elderly (in large print) can be another measure, focusing on enhancing accessibility to traffic information.

3. Housing

Key Issues	
1	Public and private rental housings are not well maintained.
2	There is a lack of services supporting housing management.
3	There is a lack of support for senior citizens in the vulnerable social group to move into rental housing.

Creating life-cycle housing support program for senior citizens

◦ Elderly people are vulnerable to negligent accidents due to aging of their body and various diseases.

◦ According to Korea Consumer Agency's Consumer Injury Surveillance System (CISS), the place reported to be the most dangerous for people aged 60 or older was "house" (4,426 reports, 61.1% of the relevant age group) in 2017, followed by accommodations and restaurants (564 reports, 7.8%), roads and

sidewalks (315 reports, 4.3%), leisure, cultural and recreational facilities (208 reports, 2.9%), and medical service facilities (168 reports, 2.3%). In other words, there is a higher risk of accidents for senior citizens in their home rather than outside.

- As the elderly has a great need for "aging in place," or continuing to live in a familiar environment (Kang Mi-Na, 2017), creating an age-friendly city is significant in that it creates an environment in which senior citizens are able to continue to live in the area where they have been living for a long time and spend their last days in their own home. Therefore, the support for home renovation works is not an optional, but essential service to ensure residential stability of senior citizens.
- Meanwhile, a survey conducted by Korea Research Institute for Human Settlement in 2017 showed that the places where the households with senior citizens and/or disabilities feel inconvenience inside and outside the house are bathrooms (27.6%), outside the house (23.3%), front door (18.5%) and kitchen (10.4%). The respondents picked installation of stair ramps at the main entrance, installation of safety grab rails in bathrooms, removal of any inconvenience at the entrance, installation of wheelchair-accessible kitchen sinks, installation of slip-resistant flooring, other installations in bathrooms, and removal of height differences between flooring as home amenities that they wished to install or improve in the order listed.
- However, the current renovations and refurbishment works are carried out mainly in the fields of papering walls and floors. Also, housing renovation projects are limited to providing support for renovation costs or support related to home amenities, which is not sufficient to renovate the house in a way that meets the physical conditions of senior citizens.

◦ Although Nonsan provides housing support services for the elderly, it should move away from providing one-time renovation and refurbishment projects and consider implementing a life-cycle housing support program, under which support is provided adapting to the needs of different ages as citizens get older.

Support for and thorough management of rental housing

◦ Intensive supply over the past 15 years has resulted in an increase of long-term public rental housing, which means a housing leased for 10 years or more, from mere 270,000 in 2000 to a whopping 1,163,000 in 2015. The share of long-term public rental housing in the total housing also increased from 2.3% to 5.9% over the same period, having significant asset value (Jin Mi-Yun, 2016).

◦ However, the current supply levels of senior housing and rental housing demonstrate that the supply of senior welfare housing is not equally distributed across the nation; most of the supply is concentrated in Seoul and its metropolitan area and the other regions are relatively marginalized (Cho Sang-Bae et al., 2014).

◦ Support for senior rental housing should be provided both quantitatively and qualitatively: first, quantitatively, it is necessary to understand the demand of the rental housing and make up for the shortage, and qualitatively, multi-faceted management is required that includes not only current activities focusing on physical facility management of rental housing but also public asset management and tenant support.

◦ In this regard, it is necessary to improve housing stability and user satisfaction through user-oriented rental housing management, instead of supplier-oriented management.

4. Social Participation

Key Issues	
1	The prices at which senior citizens participate in activities or attractions are not reasonable.
2	There is a lack of inter-generational integration programs, in which people of all generations participate.

Senior social participation for successful aging

- The elderly population has increased not only in a quantitative sense but also qualitative sense, such as a higher education level, improved ability to acquire information and knowledge, and more widespread cultural leisure activities. Today, senior citizens in our society are not a passive, vulnerable group waiting for the government protection; rather, they are consumers who cannot be ignored in the market economy and a majority group with rights to vote. In other words, the elderly in the present age have the ability to exercise political pressure on the government and political parties as well as the social economy.
- Therefore, the authorities need to go beyond the policies that have focused on meeting the basic survival needs, such as physiological need and safety need, but develop the policies focusing on improving the quality of life, such as self-esteem and self-actualization needs.
- There is a growing interest in social participation at the center of such improvement of policy horizons and levels, which constitutes successful aging of our society[3].
- Social participation is expected to satisfy a variety of the needs

3) According to the concept of successful aging by Rowe and Kahn, sustained engagement in social and productive activities is one of the three components for successful aging along with low risk of disease and disease–related disability and maintenance of high mental and physical function (Kim Geun-Hong, 2001).

of senior citizens through many activities. It is also mentioned as a way to satisfy the diverse and complex needs of the elderly, such as income needs through participation in economic activities, leisure needs through leisure activities and hobbies, education needs through educational activities, sports needs through sports activities, and social and psychological needs through volunteer activities (Kim Geun-Hong, 2001).

- With these in mind, Nonsan should expand its policy related to social participation of senior citizens that are currently put in place successfully, and devise the policy that will take it to the next level.

Community of generations for inter-generational integration

- The number of senior citizens living alone is on the rise. Due to the negative perception of the elderly, the integration with other generations can make them even more lonely.
- As there is a lack of communication between different age groups and an increasing number of lonely death cases of senior citizens, there is growing concern about aggravating discrimination against age. Despite such concern, there is little forum for inter-generational exchange to overcome prejudice and to get to know each other better.
- A meaningful experience that different generations build together can reduce any misunderstanding between them and any prejudices arising therefrom. Also, it highlights the values or perspectives common in all generations rather than their differences, which helps develop a sense of community among them. Moreover, it provides an opportunity for people of different

backgrounds, ages and experiences to engage in interactions, which enables them to expand the scope of their human relations and their understanding of other people. Furthermore, they can help out each other based on the strengths and abilities specific to different age groups (Han Jeong-Ran, 2002).

◦ Inter-generational communication helps younger generations to have a vivid and accurate understanding of history, and to learn about a variety of life experiences and wisdom that they are yet to experience. In addition, it gives senior citizens an opportunity to learn through the younger generations about a sense of change in society, new knowledge, and ways to adapt to and cope with social changes.

5. Respect and Social Inclusion

Key Issues	
1	The contributions to the community that senior citizens have made in the past and now are not recognized.
2	The opinions of senior citizens are not sufficiently asked for regarding how to provide appropriate services for them.

Respect for the elderly; respectable elderly

◦ In World Values Survey Wave Six (2010-2014), 81.8% of the Korean respondents answered "yes" to the question that "nowadays senior citizens are not much respected." With regard to this question, Korea was placed in the second after Romania (85.3%) among 51 countries that took the survey. The average of all nations was 58.9%, which Korea exceeded greatly.

◦ Unlike other stages of life, senior citizens call for social support most desperately but experience a sudden reduction of social support resources and loss of social support. Their social

activities are expected to mitigate the reduction of such social network (Park Kyung-Suk, 2000).

- It is essential to develop a program that provides continued and direct experiences that enable qualitative interactions between the elderly with different age groups, thereby eliminating prejudice against the elderly and establishing an image of an ideal senior citizen and senior life.

Encourage regular senior communication channel

- When Nonsan planned its representative senior policy called *Donggodongrak* (or "sharing one's joys and sorrows"), it held presentations for senior citizens and listened to their views attentively.
- Their views were heard again through round-table discussions at the policy implementation stage, but it was found in this survey on the level of age-friendliness that they did not feel that way.
- The policy for the elderly can finally come up with a solution by listening to the problems from senior citizens and contemplate on them together with senior citizens, who are the beneficiary of the policy. The policies established through this process can ensure their effectiveness and active participation from residents in the implementation process.
- However, any one-off feedback session has little impact on the entire process of policy establishment. It is necessary to establish a channel for senior citizens to participate in the policy creation and implementation on a regular basis.
- An age-friendly city means a good city for everyone to live - not only senior citizens but also citizens of other age groups. In addition, it aims at creating an environment that ensures vibrant

life of the elderly more than anything and in which senior citizens are not discriminated in the community for being old. In this regard, it is important that senior citizens play a major role in policy establishment and implementation so that their active participation would lead to a policy supported by local residents and a city where senior citizens want to live.

- In the process of policy formulation and implementation to become an age-friendly city, a formal channel should be established to listen to and reflect the opinions, desires and experiences of the elderly. Such channel aims to encourage active participation of senior citizens of various social experiences and backgrounds in strengthening capacity of local communities and building social capital. In this regard, it is a good idea to form a senior monitoring team, which represents the needs and opinions of the elderly and provides opportunities for active participation in policy development and monitoring (Kim Seon-Ja, 2010).
- Moreover, the elderly is encouraged to participate in hearings and discussions related to policy development and implementation related to local communities. Furthermore, materials are made available in places that senior citizens visit often, such as senior citizen community centers and senior welfare centers, or sent via mail, or announced on cable TV channels to raise interest on hearings and discussions. As such, support is provided to give senior citizens a direct channel to share their opinions with regard to development of services, including senior rights or public services for the elderly (Lee Jae-Jung et al., 2015).

6. Civic Participation and Employment

Key Issues	
1	There is a lack of information and counseling services for senior citizens regarding employment.
2	There is a lack of support provided for senior citizens to start their own business.

Support for senior employment and business start-up

○ It is true that the elderly have very limited opportunities to use their ability, experience and knowledge due to the negative perception prevalent in our society, such as declined labor force and a lack of adaptability. Although the desire to participate in economic activities of the elderly population is getting stronger, they are excluded from the labor market for not being able to find work. This not only causes them financial difficulties but also decline in overall quality of their life because the sphere of their life gets smaller as they cannot engage in economic and social participation through jobs. Against this backdrop, the issue of elderly unemployment has become a new social problem (Ahn Jin-Kwon et al., 2015).

○ Also, according to the result of National Survey of Senior Citizens (2014), in terms of job search activities as number one priority, the most important activity is asking the job support center, which 63.0% of the elderly who have searched for a job have tried, and job search through personal contacts accounted for 30.4%. Searching for jobs on newspapers, magazines and online was 2.7%, and more active job search activities such as writing resumes and cover letters accounted for merely 3.8% of the total respondents.

○ Looking at the result in term of job search activities as number two priority, job search through personal contacts accounted for 59.3%, others (cover letters, employment counseling, etc.) 19.9%, searching for jobs on newspapers, magazines and online 16.3%, and asking the job support center 4.6%. Putting the two priorities together, job search through personal contacts took up an important share in job search activities of senior citizens. Most of senior citizens have arrived at the stage of old age without being much prepared. Although they have a strong desire for engaging in economic activities, there is a significant lack of infrastructure to support their post-retirement re-employment or training.

○ Therefore, it is necessary to establish and promote a professional support system for vigorous job search activities of senior citizens.

7. Communication and Information

Key Issues

1 There are not enough places to use computers and internet.

Smart senior

○ National Survey of Senior Citizens (2014) showed that 17.0% of the total senior respondents said that they knew how to use computers and internet, among which 2.9% answered that they were very proficient in using computers and internet, 7.0% answered that they knew how to use computers and internet to a certain extent and had no problem finding the information they wanted, and 7.1% answered that they knew how to use

computers and internet to a certain extent but had a problem finding the information they wanted. In other words, only about 10.0% of the elderly population seem to have no difficulty in using computers and internet. As seen in the survey, the utilization of information by senior citizens tends to be very passive and limited.

- The use of computers and smartphones in modern society is the most popular means of communication with family and younger generations. The use of smartphones has become such an essential means of communication that any limitation on such use is enough to cause interruptions in communication with the world. A smartphone may seem an unnecessary machine for senior citizens who are not familiar with how to use it, but once they learn how to use it, they will have a wider range of communication. Moreover, in addition to their own functions, internet and smartphones are a means to acquire information, so it will be more advantageous to acquire the information that senior citizens need in their everyday life.
- In this regard, it is necessary to further expand computer education for elderly people, to make computers more accessible to senior citizens, and to find ways to ease the burden of the cost for using computers and internet.

8. Community Support and Health Services

Key Issues	
1	There is a lack of visiting services for those who have mobility problems.
2	There is a lack of services for local senior citizens.

Visiting services for those with mobility problems

- National Survey of Senior Citizens (2014) showed that the prevalence of chronic diseases diagnosed by physicians in the elderly is about 90%, and the rate of senior patients having two or more chronic diseases is very high at about 70%. In particular, the prevalence and combined morbidity of chronic diseases of the people aged 65 through 69 and those of the people aged 70 through 74 have a large difference of about 10%p. This suggests that continuous and systematic management of diseases needs to be reinforced in order to improve self-care ability for their chronic diseases and to prevent complications of chronic diseases.
- Also, as for depression, the higher the age, the higher the rate of experiencing symptoms of depression. Therefore, active intervention of mental health, such as depression management, is required before one enters the stage of old age.
- Meanwhile, an increase in policy and social interest in exercise and medical checkup has led to increased exercise and medical checkup rates. However, systematic nutrition management programs are yet to be put in place. In this regard, the services related to nutrition management need to be strengthened from a preventive approach.
- Overall, the development of medicine and the entry to a super-aged society resulted in an increase in the number of those with chronic conditions. Also, community-oriented health care for the elderly should be reinforced to ensure that senior citizens do not suffer from sudden deterioration of health as they grow older. Furthermore, preventive health policy needs strengthening to improve the health level of the elderly.

Creating an aging-friendly local community

- The value of elderly care has changed from a protective perspective centering around providers and facilities to a consumer perspective entering around local communities.
- Since the elderly have a strong desire to continue to live in their own home, the protection of the elderly in the local district is becoming important. Also, the importance of local welfare will continue to increase at a time when decentralization is being emphasized.
- Therefore, Nonsan, as a super-aged society, should build elder-friendly communities, in which senior citizens can lead a good life, which have infrastructure and services that will meet their basic needs, promote their social and civic participation and optimize their physical and mental health and well-being (Jeong Kyung-Hee et al., 2008).
- In order to create an elder-friendly community, it is necessary to respond to the current level of aging and prepare for the future. To do so, local residents should recognize the necessity of building an elder-friendly community and join the efforts.