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Ko, Youngho
Associate Research Fellow

Legislative Improvement Measures system for Age-friendly Urban Environments¹

The current response to the aging society in Korea mainly focuses on healthcare and welfare policies; yet, the World Health Organization (WHO) has identified three elements of age-friendly physical environments (external spaces and facilities, housing, transportation) and five elements of age-friendly non-physical environments (leisure and social activities, use of human resources, communication and information, medical and local care) in its publication of “Global Age-Friendly Cities: A Guide” (WHO, 2007). The publication explained that the physical and mental well-being of the elderly and the institution of an age-friendly society are made possible when the hardware (physical environment) and software (non-physical environment) are both readily available to their aging residents.

However, a concrete plan regarding the physical aspects has failed to materialize in the national and municipal plans. The Framework Act on Low Birth Rate in an Aging Society articulates that the State has an obligation “to create a pleasant living environment for senior citizens and protect senior citizens” under Article 13. Under the same Act, the State is to establish “Basic Plans on Low Birth Rates in Aging Society” every five years, by which local governments are to establish an annual plan for implementation. Summarily, the state and local governments have the

1. This article revised and edited “Measuring the Age-Friendliness of Urban Environment for Preparing Aging Society”, AURI, 2018, co-authored by the same researcher.

responsibility to provide a suitable physical environment for the elderly. However, the second Basic Plan has been criticized for its lacks of measures regarding outdoor green spaces and park areas especially when compared to the standards set by the WHO guide (Chung & Auh, 2012). The third Basic Plan was criticized for poor implementation compared to government expenditures and resulted to introduce the “Low birth rate in an aging society policy roadmap (Presidential committee on aging society and population policy, 2018)” the importance of creating a care environment centered on the local community. Seoul’s first implementation plan was criticized for lacking sufficient means to build a “comfortable living environment” (Chung, 2014). Plans to build a physical environment that would accommodate governmental health and welfare policies such as those for health education, medical care and cultural activities are missing from its design.

The external environment of cities and communities greatly affect the physical and mental well-being of the elderly. Research literature revealed that walkways, parks, accessibility to shops, and other outdoor environments are positively correlated to physical activity of the elderly, with studies demonstrating that outdoors safety and connectivity also unquestionably affects the amount of time spent outdoors (Joseph & Zimring, 2007; Nagel et al., 2008; Gomez et al., 2010). The outdoors, for the elderly, is where they spend time with family members, friends, and neighbors, a place that alleviates their sense of isolation (Pinquart & Sorensen, 2001). In particular, walkable outdoor space is known to enhance the independence and social interactions of the elderly (Frank et al., 2010). In this sense, the outdoor community spaces may have extensive influence on elderly activities and could be a decisive factor in determining the quality of life for senior citizens (WHO, 2007).

[Table 1] Relationship between characteristics of the outdoor community spaces and the physical health and social interactions of senior citizens

Characteristic	Findings
Walkability	<ul style="list-style-type: none"> ● Walkability is closely related to an individual's health based on a questionnaire survey of 45-84 year olds (Tomey et al., 2013). ● Intra-area mobility, measured by street connectivity, increased mobility and reduced obesity rates for the elderly (Freedman et al., 2008). ● Properly maintained pedestrian routes and curbsides (cracks, breakage, etc.) are closely related to ease of walking in the elderly (Clarke et al., 2009).
Accessibility	<ul style="list-style-type: none"> ● Results of a questionnaire survey on people over 55 years old living in Michigan showed that elderly people living in areas with high accessibility to external spaces and facilities enjoy more outside activities compared to elderly people with low accessibility (Clarke & Gallagher, 2013).
Compactness	<ul style="list-style-type: none"> ● Elderly people in commercial mixed-use residential areas walked more than elderly people living in residential areas in suburban areas (Satariano et al., 2010).
Safety	<ul style="list-style-type: none"> ● Fear of crime is related to length of time spent for outdoor activity (walking) of the elderly (Gallagher et al., 2014). ● Fear of falling is higher for residents over 50 living in areas with fast moving cars and poorly maintained pedestrian routes compared to those who don't live in such environments (Lee et al., 2017). ● For the elderly, the safer they feel in a neighborhood the more they participate in outdoor activities (Tucker-Seeley et al., 2009).

In the case of WHO and foreign nations such as the United States, policies for creating age-friendly community spaces and facilities are actively pursued. In addition to the aforementioned WHO guide, the organization has also published guides to diagnose the age-friendliness of urban and community spaces as well as the suitability of age-friendly health and housing. The Population Reference Bureau in Washington, DC, published a report on healthy aging in place, while New York has established the Advantage Initiative which specializes in age-friendly city research. The Initiative has advanced an age-friendly city development policy based on data collected from the surveys. New York has designated an Aging Improvement District to improve the living environment for senior citizen and project has reduced mortality rates for elderly pedestrians while increasing overall pedestrian and economic activities (Goldman et al., 2016).

An examination of these policy projects and case studies have found that the existing discourse on creating age-friendly environments focuses on green areas including parks, pedestrian walkways, resting and exercise spaces, traffic and safety, in addition to increased accessibility, ease, and safety of social interactions (Ko et al., 2018).

With regard to the physical environment in cities and communities, the State obliges local governments to establish spatial plans under Article 18 (Persons with Authority to Formulate Urban or Gun Master Plans and Areas Subject thereto) and 19 (Details of Urban or Gun Master Plans) of the National Land Planning and Utilization Act. In particular, Article 19 provides policy directions and items that local governments should include in urban or Gun master plans.

National Land Planning and Utilization Act, Article 2 (Definitions)

3. The term “urban or Gun master plan” means comprehensive planning for setting basic spatial structures and long-term development directions for the jurisdictions of the Special Metropolitan City, a Metropolitan City, a Special Self-Governing City, a Special Self-Governing Province, or a Si/Gun, which forms guidelines for formulating urban or Gun management plans;

Despite the importance of creating an age-friendly environment, the specific means to do so are missing from the National Land Planning and Utilization Act by which municipal spatial plans are built and advanced. In order for the current conditions to change, Article 19 (1)-2. needs to be amended to consider the growing elderly population in addition to the normal population distribution. In doing so, local governments can establish an urban or Gun plan that includes the necessary elements of an age-friendly external environment. In addition, Article 19 (1)-6. and 7. need to include pedestrian routes and crossings (vehicular and foot traffic), restrooms and rest facilities (hygiene and spaces for resting) in the existing infrastructure and park-related measures to create age-friendly external areas.

[Table 2] Improvements to the National Land Planning and Utilization Act in creating age-friendly external spaces and facilities

Legislation	Existing legislation	Recommended amendment
Article 19 (Details of Urban or Gun Master Plans)	<p>① An urban or Gun master plan shall include policy direction-setting for the following matters: <Amended by Act No. 10599, Apr. 14, 2011></p> <ol style="list-style-type: none"> 1. Matters concerning local features and direction-setting and objectives of a plan; 2. Matters concerning spatial structure, establishment of living zones and distribution of population; 3. Matters concerning the utilization and development of land; 4. Matters concerning the supply and demand of land by usage; 5. Matters concerning the conservation and management of the environment; 6. Matters concerning infrastructure; 7. Matters concerning parks and green areas; 8. Matters concerning parks and green areas; <ol style="list-style-type: none"> 8-2. Matters concerning response to climate change and energy conservation; 8-3. Matters concerning safety and the prevention of disasters,(abbreviated) 	<ol style="list-style-type: none"> 2. The “population”-centered plan currently focuses on population distribution and must be amended to include the “increase of specific age-groups such as the elderly” 6,7. In addition to infrastructure, parks and green areas, plans should also include a pedestrian network (walkways, crossings) and public facilities (restrooms, resting facilities).

Additionally, the Ministry of Land, Infrastructure, and Transport provides guidance for establishing urban and Gun plans based on the National Land Planning and Utilization Act. Their coordination should also move in conjunction with the above-mentioned amendments to Article 19. Specifically, Chapter 1 (General provisions), 3 (Contents and principles of urban and Gun Master Plans), and 4 (Planning standards) of the planning guidance are highlighted for amendment and should include an age-friendly outdoor space and facilities plan in the general framework.

[Table 3] Improvements to the 'Urban and Gun master plan planning guidelines' for creating elderly-friendly external spaces and facilities

Classification	Improvement measures
Basic principles of urban planning 'Urban and Gun master plan guidelines' Chapters 1 and 3	<ul style="list-style-type: none"> - Current measures emphasize "population distribution" and "population density" when establishing plans; hence, it is necessary to add the appended consideration of "increase of specific age-groups such as the elderly " - Need to add components of age-friendly city planning
Urban spatial structure and physical environment	<ul style="list-style-type: none"> - Pedestrian walkways, crossings, public facilities (restrooms, resting facility) for the elderly need to be added
Basic survey for urban planning	<ul style="list-style-type: none"> - "Population distribution" focuses solely on population matters and lacks consideration of any "increase of specific age-groups such as the elderly" as well as "consideration of age-friendliness of the physical environment"

At present, there is a rapid increase in budget allocation and proliferation of projects related to creating age-friendly cities in Korea. The government has set as its goal "support for safe living conditions for the elderly" identified in the "Low birth rate in aging society policy roadmap" and has allocated approximately 163.2 billion Korean won to this cause (Presidential committee on aging society and population policy, 2018). The finance authorities, as part of a gradual progression toward an inclusive state, have identified "preemptive responses to demographic changes such as aging" and "expansion of investment in infrastructure for peoples' convenience" as key areas for budget allocation (Ministry of Economy and Finance, 2019). In order to create an age-friendly living environment, Seoul has planned for a budget of 26.4 billion won (Seoul Metropolitan Government, 2012), while Busan has planned 107.7 billion won (Busan Social Welfare Development Institute, 2016). The mission now is to extend the effectiveness of expenditures in all levels of government in order to realize a physical and non-physical age-friendly environment that can accommodate the changing demographics of our society.

Keywords : Aging society, Aging-friendly urban environment, Aging-friendly city

