

auri research brief

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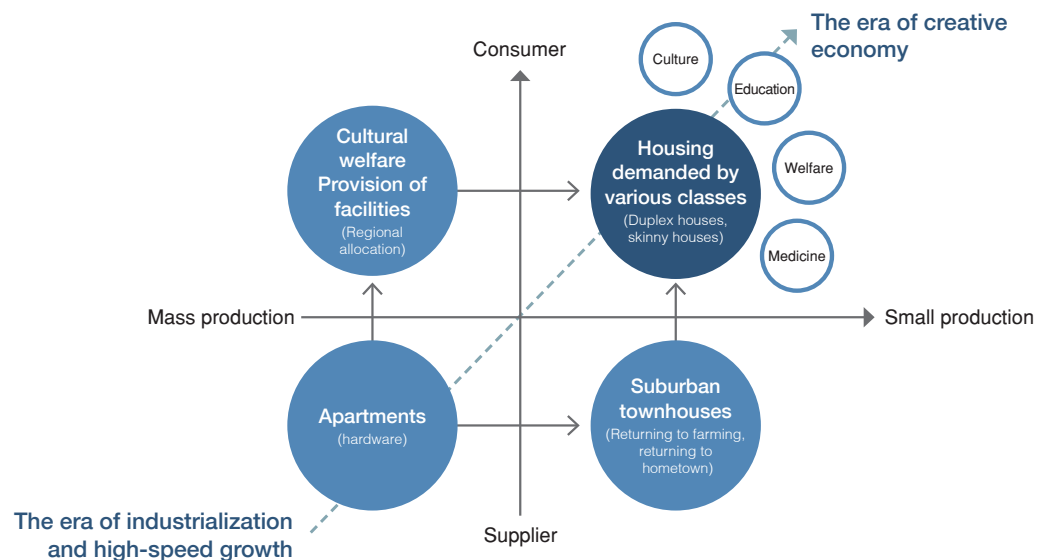
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Policy proposal on the planning of detached housing to ensure dwelling diversity

This study starts from the problem that detached housing areas within land development districts is limited in responding to various housing needs. The recently increasing demand for detached housing implies that the supply sector needs to accommodate for such changes and that detached housing areas need to be systematically formed.



Variations of housing consumers depending on socioeconomic changes

In other words, supply sector improvements are required so that new types of housing can be constructed and provided under normal housing supply conditions. Furthermore, systematically planned detached housing areas can provide diverse groups with lots that are appropriate for their individual financial circumstances, and also ensure housing choice at the same time. Against this background, to ensure housing diversity and the establishment of a systematic provision of detached housing, the main purposes of the study are as follows.

First, the study aims to present the process of ‘establishment and systematic management of lot’ to the ‘provision of lots and housing construction’ in response to the wide-ranging housing type that are in demand, such as duplex housing and co-operative housing. The study also proposes a supply system that introduces new forms of detached housing that are financially viable for various occupant groups. Additionally, in order to ensure flexibility in the systematic management of detached housing, a collaborative design process amongst ‘occupant – architect – housing provider or constructor’ is proposed. Second, the district unit planning system needs to be supplemented to ensure high quality of housing environment landscape while accommodating dwelling diversities. Third, to increase the applicability of the proposed supply system there needs to be improvement in the planning permission process, supply mechanism of block type detached housing, and the district unit plan.

In order to provide housing that caters to the diverse needs of occupants, the study presents the following issues for consideration on how to improve the supply system.

First, issues on how to support different housing types that offer occupants financially viable options need to be considered. This may include housing types that rest on the idea of sharing economies such as duplex housing and share housing. Second, in order to ensure housing sustainability and a consistent housing environment landscape, how the individual occupants’ aspirations integrate into the overall environment needs to be discussed. Third, the issue of competing objectives between the individual occupant who may wish to pursue their personal lifestyle and the aspirations of the community needs to be balanced. This study aims to resolve the above-mentioned issues and verify the applicability of improvement measures against rational evidence.

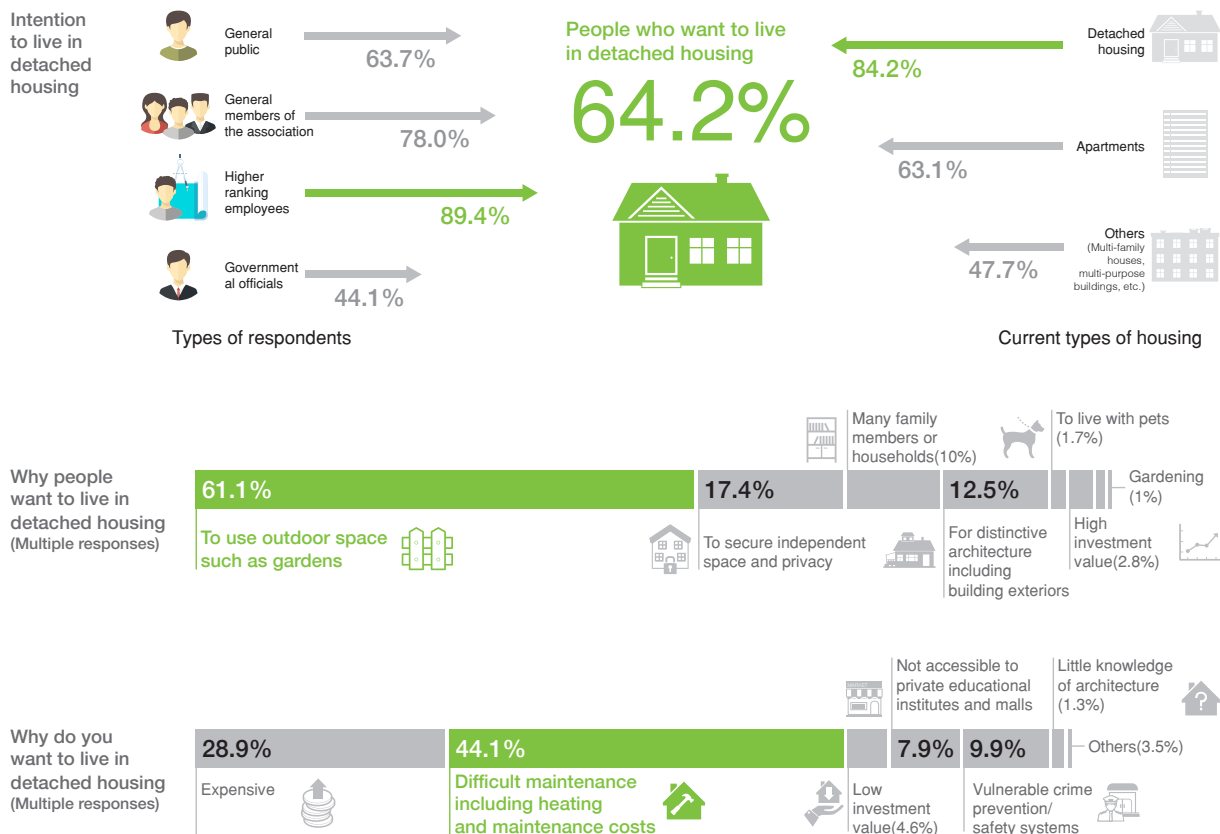
The study investigated the conditions and limitations of the current policies and system to devise ways of improving detached housing policy measures.

In most cases, within a given land development district, detached housing complies with a singular set of regulation regarding building density and form, which hinder housing diversity that reflect local characteristics. In particular, the limitations of the current lot division system for detached housing units create a homogeneous environment. Furthermore, inflexible neighborhood amenities planning standards and housing classification fails to cope effectively with the changing market.

In response to such constraints, overseas case studies of the US, France and Japan were conducted to investigate the processes ranging from lot provision to the construction of individual housing units. A common attribute induced from these cases were that there were various kinds of housing types that accommodate different needs of occupants, and means for dividing lots were also diverse. Furthermore, an Urban Code was in use to protect the quality of the residential environment, in addition to employing an architectural coordinator. Apart from this, the study also learned that there were continuous maintenance and management support to ensure that occupants enjoyed a safe and comfortable living environment.

Based on the findings from the current conditions and overseas case studies, the study conducted interviews and surveys of both the supply and demand sides of detached housing. The results revealed that people on the demand side tend to avert living in detached housing due to financial costs and high maintenance reasons.

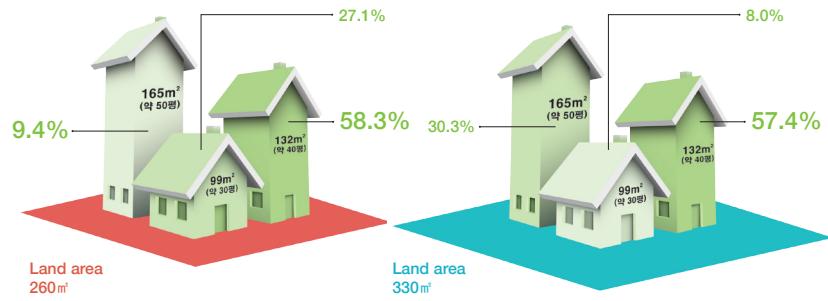
Q Intention to live in detached housing and influential factors



Q Adequate pricing and area of detached housing

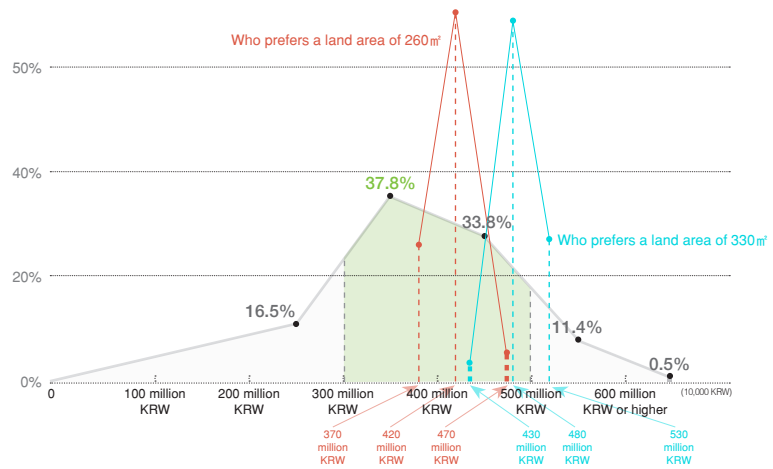
Adequate land area
and floor area of
detached housing

Total floor area



Adequate housing
price by respondent
group

Land costs +
construction costs



Q Preference for detached housing facilities and design

Preference for detached housing design

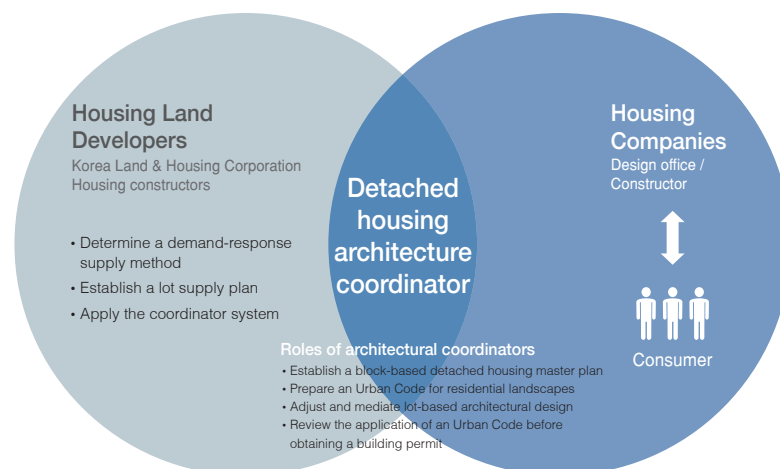
- Pitched roof 70%
- Two-story house 65.4%
- Independent detached housing 66.3%
- Masonry(Brick finishing) 36.0%



It was found that the desired housing area was approximately 165m² and above, and appropriate level of costs ranged between 300 – 500 million KRW. In terms of housing form, two-storey, brick-finished, pitch-roofed housing was preferred. People also wished to consign a mediating organization for the actual design and construction phase. On the supply side, building detached housing was deterred due to extra costs such as tax and the deficient support for small-scale businesses. In terms of physical attributes, there was recognition that smaller lots were needed, and actions for party wall construction, and lifting unnecessary building setback regulations were required. Additionally, the supply side was accepting towards implementing a design code to ensure high quality housing environment landscape, and recognized the need for differing standards depending on lot sizes.

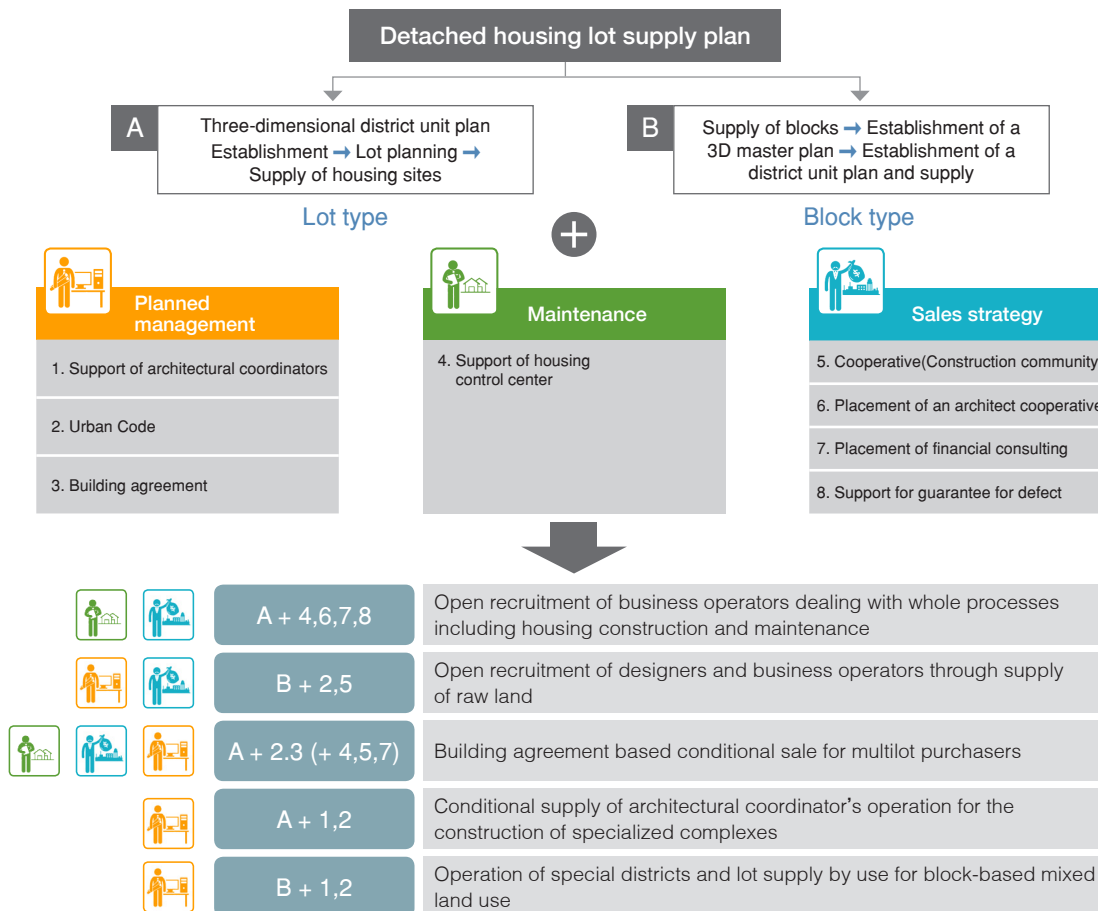
The study presented the following strategies for creating a ‘consumer-based housing supply system’ that are financially viable.

First, the study considered improvement measures from the housing construction phase to maintenance management for all stakeholder groups, focusing on a process that effectively responds to various housing demands. This involves implementing a flexible planning framework which allows for specific planning depending on special planning district designation, whilst upholding existing regulations of the district unit plan on land use, number of households, maximum density, and development density. Second, three-dimensional spatial planning is called for in conjunction with a renewed housing plan. A three-dimensional masterplan is suggested as a move away from the rigid district unit plan, and for areas designated as special planning areas, an Urban Code may be applied as a managing tool. An Urban Code may be particularly advantageous in that clear responsibilities can be drawn, and detail architectural modifications are possible. This would be useful in managing housing environment landscapes for those areas where a clear, differentiated planning concept is needed.



Housing landscape management of the architectural coordinator method

Third, a diverse lot supply mechanism that responds to various demand groups needs to be applied. The existing system categorizes lot types into the one lot per household type and the block type. The study suggests, in the case of the one lot per household type, to first establish a three-dimensional district unit plan. Lots may then be distributed directly by the land developer to individuals or housing developers. For the block type, again establishing a three-dimensional master plan should be a prerequisite, and then distribution of individual lots by the housing developer may follow.



A plan to supply detached housing sites by introducing various support measures

Additionally, support for systematic management, maintenance management, sales strategy, etc. may be introduced to promote a selective supply system that accommodates diverse groups of people. A supply system that considers a combination of various support mechanisms are as follows: call for tenders where the initial stage of housing construction to the final stage of maintenance management is handled as a single process; design and build competition for undeveloped land; a conditional disposal measure based on building agreements for those purchasing multiple lots; a conditional provision of lots for specialized areas where an architectural coordinator is to be involved; and special planning area for mixed-use block types

and land-use based lot provision.

To examine the applicability of a demand responsive detached housing area, the study conducted utility analysis of lot types and revised appropriate development size through running various simulations. The study found that, based on the existing district unit plan, for the one lot per person type land, the housing area preference of 132m² would amount to a minimum of 500 million KRW, which is too high of a cost. Hence, an alternative to this situation may be achieved through lot division. The study considered this alternative and found that although the financial burden may be alleviated, there also may be high possibilities of conflict in the process of registration or a compromise in land use efficiency. On the other hand, in order to test the effectiveness of an Urban Code, the study ran simulations for the block-type lots and deduced appropriate development size and areas. Based on the findings, the study presented suggestions for building line and form to be applied in the district unit plan.

To establish the aforementioned strategies and effectively apply results obtained from simulations, changes in current policies are inevitable. In view of this, the study reviewed various support mechanisms that could contribute towards a systematic formation of detached housing areas. Such mechanisms include the improvement of detached housing area division and planning standards, the adoption of landscape standard agreements so that landscape standards can be established through an architectural coordinator, and the implementation of a system where prior consultations by architectural coordinators are possible. Additionally, building permission system needs to be improved so that collective detached housing supply becomes possible for block type lots. Furthermore, to normalize the detached housing construction market, policies related to small-scale housing construction needs major improvement.

This study is significant in that it presents improvement measures for the recently increasing detached housing demands and responds to the establishment of a diverse dwelling culture. The suggestions of the study need to be implemented through pilot projects and monitored closely so that an alternative housing option could be achieved in the current housing market. In the future, a public developer that can act as a principal agent may further develop business planning and appropriate strategies based on the findings of this research.

