

농어촌주택의 유형별 노후형태와 성능개선을 위한 증축 및 개보수 현황 분석 - 장흥군 4개 마을을 중심으로 -

A Study on the Status of Extension and Renovation of Aging Types and Performance
Improvement in Rural Houses by Type
- Based on 4 Villages in Jangheung-gun -

Kim, Yong-Gyun

Kim, Sang-Bum

Abstract

The purpose of this study, we tried to derive problems and implications for future improvement by analyzing the physical characteristics of extension and renovation to improve the settlement environment due to the old age of rural houses and understanding the current status of rural houses. In this study, literature research, prior research analysis, and field research were conducted to analyze the physical characteristics of rural housing retirement patterns and performance improvement. This study attempted to derive the current problems of rural housing and implications for future improvement by analyzing the physical characteristics of extension and renovation to improve the settlement environment in four villages near Jangdong-myeon, Jangheung-gun. The basic pension was the highest as a major source of income for householders in rural and fishing villages, because most of the four villages had a large number of elderly people who could not engage in agriculture. The proportion of residential and vacant houses over 30 years old was investigated to be high. As for the housing structure, it was analyzed that the higher the soil in the wood structure and wall material, and the higher the probability of vacant houses becoming vacant as the wood structure and wall material are cement blocks. An average of 20% of the space expansion was carried out to improve the residential environment of the target house. In terms of space composition ratio, 14% of individual spaces and 40.2% of common spaces accounted for the largest portion of houses with 45.8% of attached spaces, and among the attached spaces, the warehouse space, which is a storage space, was the largest and the largest number of extensions. In the target farming and fishing village houses, there was a lot of renovation of the roof due to leakage, and secondary repairs such as plating and floorboards were additionally carried out due to mold generation due to leakage. In addition, in order to solve the insulation problem, a double window replacement from a single window and an insulation material was added to the wall, resulting in a form of renovation using a material different from the existing wall material. Since durability due to aging is not guaranteed, a number of temporary repair cases have been confirmed by partial improvement.

Keywords : Rural Planning, Rural Space Planning, Housing Renewal, Residential Environment Improvement, Vacant houses in farming and fishing villages

1.

1.1

*
**

(Corresponding author : Division of, National Institute of Agricultural Science,RDA, landlife@korea.kr)

2024

:PJ01746102.

Table 3. Housing structure

	Residence	Non-resident	Total
Masonry structure	18	2	20
Concrete block structure	6	2	8
Wooden Structure	19	11	30
Prefabricated structure	2	1	3
Total	45	16	61

24.6%, 39.3%, 31.1%, 4.9%, 42.2%, 37.8%, 15.6%, 4.4%, 50%, 31.3%, 12.5%, 6.3%

(Table 4).

Table 4. Housing material

	Residence	Non-resident	Total
Red brick	17	2	19
Concrete block	7	8	15
Sandwich Panel	2	1	3
Soil	19	5	24
Total	45	16	61

57.4%, 16.4%, 11.5%, 4.9%, 53.3%, 17.8%, 13.3%, 11.1%, 4.4%, 68.8%, 12.5%, 6.3%

(Table 5).

Table 5. Roof material

	Residence	Non-resident	Total
Slate	2	1	3
Pre-Coated Metal	24	11	35
Concrete	8	2	10
Sandwich Panel	3	0	6
Roof tile	5	2	7
Total	45	16	61

3.3

가 4
가
60%
100%
가
가
10
20
가
30
ALC
가 40
PC
가 가 50
()
40 30 (49.2%)
19 11
63.3% 65.1
25.1
5.3%, 94.7% 가
36.7%
58.3 18.3
54.5%, 45.5%
20 8
(13.1%) 6, 2
75%
47.7 27.7
25%
42.5 22.5
30 20 (32.8%)
18, 2
90% 30.6
0.6
10% 25
20 3
(4.9%) 2, 1

15.5

66.7%

33.3%

33

13

(Table 6).

Table 6. Status of old housing

		Durability period	Average duration of use	Average Expiration Date	Number
Residence	Masonry structure	40	65.1	25.1	19
	Concrete block structure	20	47.7	27.7	6
	Wooden Structure	30	30.6	0.6	18
	Prefabricated structure	20	15.5	-4.5	2
Non-resident	Masonry structure	40	58.3	18.3	11
	Concrete block structure	20	42.5	22.5	2
	Wooden Structure	30	25.0	-5.0	2
	Prefabricated structure	20	33.0	13.0	1

Table 7. LDK Type

K	R1	H60
	R2	H23, H31, H41, H42, H21, H39
	R3	H8, H16, H19, H20, H26, H30, H55
DK	R1	H33
	R2	H18, H24, H46, H47, H54, H56
	R3	H35, H50, H51
LK	R3	H15, H38
LDK	R1	H15, H38
	R2	H1, H11, H12, H22, H25, H36, H45, H59
	R3	H3, H4, H5, H6, H7, H9, H13, H14, H27, H28, H29, H32, H34, H37, H44, H49, H52, H53
	R4	H10, H57

4.2

85.35m²
 68.43m² 16.92m² 가
 39.2m² 12m² 34.4m²,
 40.2% 45.8% 14%,
 가
 2.5
 3m²~39.3m² 가
 2
 20.2m², 7m²~63.3m² 가
 58.6%
 m²~25.1m², 14.3m², 6
 5, 1
 가
 29
 9.58m²
 4 20.48m²
 31 10.6m²
 1
 19 3.9m²

4.

4.1

가 가 3 58
 , K, KD, LK, LDK
 K 14 (24.1%) 1K 1.7%, 2K 10.3%, 3K 12.1% 3
 , K 30
 DK 10 (17.2%) 1DK 1.7%, 2DK 10.3%, 3DK 5.2% 2
 LK 2 (3.5%) 3
 LDK 32 (55.2%) 1LDK 6.9%, 2LDK 13.8%, 3LDK 31%, 4LDK 3.4% 3
 LDK

(Table 7).

Table 8. Status of housing plan

	Total	Architectural space													Extension space								
		Sum	Privacy space				Public space		Service space						Sum	Pr	Pu	Service space					
			R1	R2	R3	R4	L	K	V	E	B1	B2	U	S		R	K	V	E	B	U	S	
H1	174.6	111.8	12.9				12.9	12.9	50.8	3.7	3.4		8.6	6.6	62.8	39.3					5.6	12.3	5.6
H2	105.4	64.1	14.2				28.5	14.1		1.9	5.4				41.3								41.3
H3	101.9	79.6	16.2	9.9	9.9		22.2	12.7		2.2	6.5				22.3								22.3
H4	100.2	79.7	12.9	4.3	12		23	13.4			4.8		5	4.3	20.5			20.5					
H5	85.9	82.8	15.2	10.5	10.7		16.4	12.6		4.5	3.7	5.2		4	3.1								3.1
H6	79.8	79.8	17.2	8	8.8		26.6	12.3			6.9												
H7	79.1	79.1	16.9	13	12.8		14.8	14.4		3	4.2												
H8	66.1	49.1	11.2	11.2	8.1				8.8				9.8		17		11.4				5.6		
H9	138.2	118.2	20.6	13.6	9.1		32.7	16.8		3.6	5.2	9.4		7.2	20								20
H10	106.3	93.2	13.6	9.1	7.2	9.7	25.5	12.2		4.4	11.5				13.1							13.1	
H11	84.6	74.8	15.3	15.1			16.7	12.4		2.1	8.3			4.9	9.8								9.8
H12	94.4	80.3	16.2	12.8			18	22.7		5	5.6				14.1					3.9			10.2
H13	91.9	91.9	21.6	12.9	14.8		21.1	12.5			5.4			3.6									
H14	94.2	66.6	11.4	10.8			30.6	8.9		1.9	3				27.6								27.6
H15	124.1	62.8	17.6	9.6	6.6		17.4		7		4.6				61.3		13.6	21.2	14.5				12
H16	81.8	67.7	11.7	10.6	8.7		18.2	11.1			7.4				14.1		10.6						3.5
H17	48.3	36.4	9				12.4	12	3						11.9						6.7		5.2
H18	106.8	104.7	20.8	14.4			10.8	14			13.4		17.9	13.4	2.1								2.1
H19	62.7	54.3	14.5	9.8	8.8			14.1	7.1						8.4		8.4						
H20	68.2	58	11.8	11.4	7.2			13.5	7.2					6.9	10.2						10.2		
H21	53.8	49.9	10.7	8.8				14	6.8					9.6	3.9						3.9		
H22	65.4	58.4	15	5			14.9	13.1	6.2				4.2		7						7		
H23	51.5	51.5	15.1	13.4				15.1			4.7			3.2									
H24	72.9	52.9	16.1	12.7				10.8	9.8					3.5	20						5.9		14.1
H25	93.2	79.1	15.6	11.7	10.5		12.6	15			10.5		3.2		14.1			14.1					
H26	66.9	63.7	12.8	7	9.2			12.8			5.9			16	3.2								3.2
H27	98.2	98.2	13.1	12.9	12.9	12.4	25.6	8.5		1.5	5.5			5.8									
H28	109.1	96.1	23.9	8	8.6		21.9	13.5		3.4	2.8	6.4		7.6	13								13
H29	211.5	183.7	31.2	26.1	11.5		63.3	25.1		3.4	6.7		16.4		27.8								27.8
H30	67.2	47.8	14	10.3	9.6				7					6.9	19.4		15.2					4.2	
H31	59.3	59.3	12.9	11.3				15.9	8.8		4.7			5.7									
H32	63.2	63.2	12.5	6.9	10.8		17.1	7.2			4.5		4.2										
H33	36.9	28.7	11.9					10.9	5.9						8.2						4.7		3.5
H34	100.9	58	9.9	9.6	7.9		17.2	13.4							42.9						5.7		37.2
H35	107.4	71.3	13.5	12.6	11.7			11.7	21.8						36.1	14.5					5.3		16.3
H36	70.7	61.2	13.1	9.9			14.8	16.8		3.9				2.7	9.5						4.6		4.9
H37	143.4	112	14.8	12.4	14		39.5	20.4		4.2	6.7				31.4								31.4
H38	79.5	43.9	11.1	6.9	9.3			9.2	7.4						35.6			26.1			4.6		4.9
H39	44.6	39.1	7	6.5				12.7						12.9	5.5						5.5		
H41	54.6	49.2	9.6	7				14.5	6.1				3.7	8.3	5.4						5.4		
H42	51.5	39.6	10.2	8.7				14.2	6.5						11.9								11.9
H43	71	56.8					23.4	23			6			4.4	14.2								14.2
H44	108.3	105.1	16.7	12.1	11.4		12.1	18.9	14.7					19.2	3.2								3.2
H45	89.5	72.7	13.6	9.7			25.8	15.6		4				4	16.8						7.5		9.3
H46	79.9	58	13.5	10.6				14	3.3					16.6	21.9								21.9
H47	54.3	54.3	13.3	13.3				20.8	6.9														
H49	72.8	67.3	13.5	6.7	8.7		10.2	19.8	6.2					2.2	5.5						5.5		
H50	73.3	70.6	12.8	11.6	9.8			14.5	11.5		2.1			8.3	2.7							2.7	
H51	52	43.3	11	5.2	8			8.9	7.1		3.1				8.7								8.7
H52	59.8	53.7	7.2	3	6		7	20	10.5						6.1						6.1		
H53	85.4	76.6	12.1	12.1	8		11.7	16.5	9.5		6.7				8.8								8.8
H54	50.9	44.6	10	9.6				19.2	5.8						6.3								6.3
H55	59.2	42.5	10.2	10.2	9.5				8.6					4	16.7		11.8				4.9		
H56	59	59	15.9	14.8				13.6		3.3	3.8		7.6										
H57	91.2	91.2	16.4	13.5	13.5	10.8	13.9	19.4		3.7													
H58	41.7	41.7	10.2				13.4	12						6.1									
H59	74.3	61.5	14.2	12.1			12.1	16.5	6.6						12.8								12.8
H60	28.3	28.3	12.7					6.7	5.8			3.1											

Interior access prohibited : H40, H48, H61

4. Jang, S. J., A Study on the Typology and Evolution of Villages and Houses in Rural Areas: Case Study of 13 Villages between the 1980s and 2010, *Journal of the Architectural Institute of Korea*, 26(7), 2010.
5. Kim J. H., & Kim, S. W., Experiences of the Housing Improvement Service Utilization, *The Journal of the Korea Contents Association*, 15(1), 2015.
6. Kim, H. B., A Study on the Environmental Characteristics of Residential Environment Improvement Project in Jangheung-gun, *The Journal of Humanities and Social science*, 11(6), 2020.
7. Kim, K. S., & Lee, S. J., A Study on the Characteristics of Space Transformation in Rural Apartments Houses, *Journal of the Korean Institute of Rural Architecture*, 6(2), 2004.
8. Kim, Y. G., Kim, S. B., & An, P. G., Physical Characteristics Study through Renovation Type Analysis of Houses in Rural Areas, *Journal of the Korean Institute of Rural Architecture*, 24(2), 2022.
9. Kim, Y. H., A Study on the Perception for Rural Housing Remodeling for Improved Residential Environmen: For Rural Residents in Jeollanam-do, *Journal of the Korean institute of rural architecture*, 16(3), 2014.
10. Lee, J. H., Cheon, D. Y., A Study on Home Improvement Policy for the Vulnerable Families: Focused on Jeonnam Area, *Journal of the Korean Housing Association*, 25(4), 2014.
11. Lee, J. m., & Choi, W., Assessment of rural idleness vulnerability in terms of population, housing, and farmland, *Journal of the Korean Society of Agricultural Engineers*, 64(2), 2022.
12. Suh, B. R., Kim, S. M., & Heo, Y. C., A Qualitative Study on the Problems and Policy Suggestions of Housing Renovation Programs for the Elderly in Rural Areas, *Journal of Social Sciences*, 33(2), 2022.

: 2024. 10. 10
 : 2024. 11. 22
 : 2024. 11. 22