

Study on the Current Situation of Traditional Dwelling in Ulaanbaatar, Mongolia

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Abstract The 21.8 % of the population of Ulaanbaatar city are living in the Ger dwellings at the informal settlement, where the water, heating, sanitation, public transportation, social services and recreational amenities for the residents are lacking. This study aims to evaluate and to compare the living condition as well as the living environment of the residents of both traditional and modern housing units. Additionally, the study aims to clarify how Ger dwelling, which was originally invented for nomadic lifestyle, is functioning in the settled living environment. As a result, it revealed the following: 1) Nomadic lifestyle is shifting into the settled one, 2) The average size of Ger is composed of 5 hana (19.3m²), 3) In the Ger area, there are no areas used as social, cultural, commercial and recreational facilities, 4) Some of the residents prefer living in improved Ger dwelling with the traditional lifestyle, and so on.

Keywords [Ger area, Informal settlement, Housing]

1 Introduction

The main comfortable living environment of human being is their dwelling. Ger, Mongolian traditional dwelling, is the most important part of the development of Mongolian architecture. The development of this felt dwelling which was the main dwelling type of ancient nomadic races living in Mongolian territory has 2500 – 3000 years of rich history.¹⁾ During the long time of development, the structure, form, and design of a Ger have been changed into its modern form.

Ger dwelling is widespread among Mongolia, Inner Mongolia, Buryat, Kalmyk, Altai people, Kazakhs, and Kighizs.¹⁾ The Ger dwelling is a housing type which has a unique design of architecture with good mobility and durability.

Due to the increase of suburban residential area of migrated new comers to Ulaanbaatar city, the Ger settlement is spreading in urban fringe. Out of 184,200 families living in suburban residential areas, 81,600 families are living in Gers and 100,300 families in low storey housings.²⁾

The percentage of the population of Ulaanbaatar city in total population was 14.0 % in 1956, and

22.3 % in 1969, 43.6 % in 2010, and 46 % which is 1,318.1 in end of 2012. Increasing migration from countryside to the city formulates continuing occupancy in Ulaanbaatar. Most of the population is living in Ger housing in the spreading urban sprawl with Gers and low storey houses.

2 Methodology

In order to compare living condition in Ger housing environment, the questionnaire survey with 100 random samples from urban fringe locations (Amgalan, Shar-had and Doloonuudal) and the Ger



Fig. 1 Study area in Ulaanbaatar city

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areas near to the city center (Television, Black market and Dari-ekh) was conducted. After collecting the questionnaires, quantitative data were analyzed.

The following factors are analysed in this study: The number of Ger dwellings (per total population of Mongolia and Ulaanbaatar), household size, Ger floor area, engineering supply system (water supply, waste water system, heating and electric supply system etc.), road and pedestrian environment, improvement of open space, sanitary condition (waste disposal), public transportation and social service – educational, health care and cultural amenities.

3 Findings

3.1 The number of families living in Gers

Housing demand is defined by the housing type, floor area, and household size³⁾. In Ulaanbaatar, 21.8 % of the total families are living in Gers and 78.2 % are living in houses and apartments, while in the countryside, 89.9% are living in Gers and 10.1% are living in houses and apartments⁴⁾.

Table 1 Housing condition in the country and city level (by percentage)⁴⁾

Location	Total household	Housing type,%	
		Apartment	Ger
Toatl	541149	49.1	50.9
Ulaanbaatar	161273	78.2	21.8
Province center	118104	62.5	37.5
Village	17021	73.9	26.1
Soum center	85281	43.3	56.7
Countryside	159479	10.1	89.9



Fig.2 Ger dwelling in Ulaanbaatar

3.2 Land ownership for the Ger plot and floor area

According to the law of land ownership, Mongolian citizen has a right to own given size of

land for housing. The land size which is designated for the household ownership in Ulaanbaatar is up to 0.07 hectare⁵⁾. According to the questionnaire survey, average size of the household owning land (hashaa) is 0.7 ha.

Result of the questionnaire survey shows that the percentage of the families of more than 7 people is 3.45%, 6-7 people is 5.76%, 4-5 people is 24.14%, 3-4 people is 45.98%, and 1-2 people is 20.69%.

According to the Ulaanbaatar city annual statistical report, 60.0% are living in the Ger settlement and 40.0% are living in apartment districts. Average household size is 3.9²⁾.

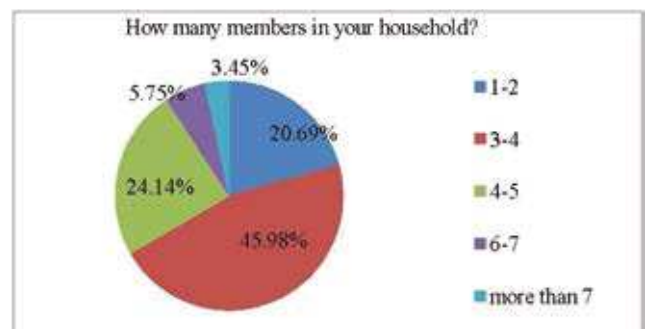


Fig.3 Household size

Table 2 Number of household living in Ger, household size and size of the Ger(by hana)⁴⁾

Number of household	Total household	Size of the Ger by percentage			
		≥ 5hana	5	6	6 ≤
	8974	43.7	55.3	0.8	0.1
1-2	2662	56.3	43.0	0.6	0.2
3-4	4180	39.9	59.4	0.9	0.1
5-6	1878	36.2	62.8	0.9	0.1
7+	254	34.6	63.4	2.0	0.0

The table above shows that 4967 household which is 55.3 % of total population in country level are living in relatively big Gers which have 5 hanas⁴⁾. Findings of our survey also show that 74 % of sample households are living in the Gers which have 5 hanas.

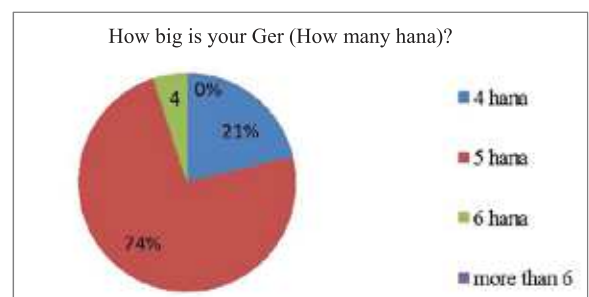


Fig.4 Ger size (number of hanas)

Regarding to these statistics, 5 hana Ger is average and relevant size of Ger.

3.3 Road and pedestrian environment

There are mostly unpaved narrow streets with disordered networks, cul-de-sacs, and broken earth holes in the Ger area. Both of the car and pedestrian use these streets.



Fig.5 Typical street in Ger area

3.4 Public transportations

As for the household income, 37 % of total residents of Ger area have low-income that ranges from 500,000 to 1 million tugriks. Due to the low rate of income and car ownership, most of the residents don't use cars but other transportations, mainly buses and minibuses, for their daily trips.

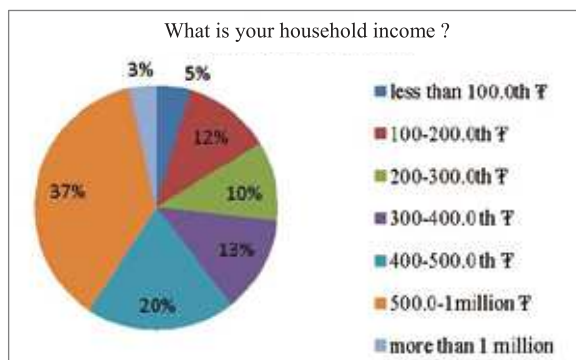


Fig.6 Household income rate

However, commuters still face difficulties related to the poor public transportation system. Another problem is poor accessibility to the public transportation lines. People have to walk long distance to reach the nearest bus stops.

3.5 Social services

According to the building code and regulation, distance of the coverage buffer zone of social

services has following specifications: 1000 m for hospitals, healthcare centers and basic social services, 500-750 m for groceries and 500 m for pharmacies and public gathering establishments³⁾.

3.5.1 High schools and healthcare centers

The capacity of high schools always exceeds in Ger area, especially in suburban Ger areas. According to the building code and regulation, radius distance of the coverage buffer zone of high-school should be planned in 500 m³⁾. However, 59 %, have answered that there are no schools near to their home, while 41 % answered that somehow there are schools near to their home. Due to the condition mentioned above school children have to commute for a long distance daily.

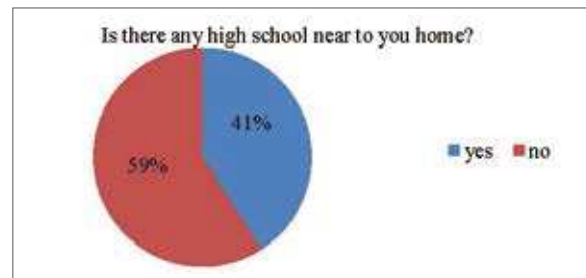


Fig.7 High school availability

According to the questionnaire survey, 76 % have answered that there is neither hospital nor health care facility near to their home, while 24 % have answered that there are healthcare facilities.

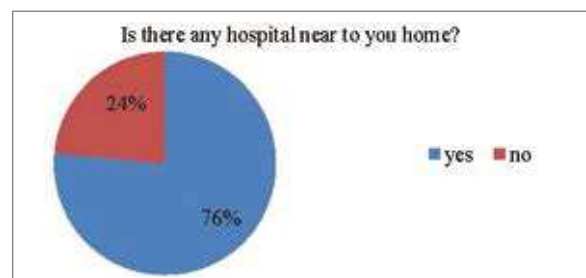


Fig.8 Hospital and healthcare facility

3.6 Green area

According to the building code and regulation, more than 25 % of residential district should be planned as green area for resident's recreational activities³⁾. However, there are almost no green and public spaces. Only a few families plant trees and shrubs in their land (hashaa).



Fig.9 Ger area in Ulaanbaatar

3.7 Housing condition

In order to clarify the living condition in Ger area, questions are designed to cover issues such as years living in Ger, satisfaction level, and housing preference. As for the question asking the duration living in Ger, 32% have answered 1-3 years, 24% have answered 3-5 years, 13% have answered 5-10 years, 15% have answered 10-20 years, 10% have answered 6 months to 1 year, 4% have answered up to 6 months, and 2% have answered more than 20 years.

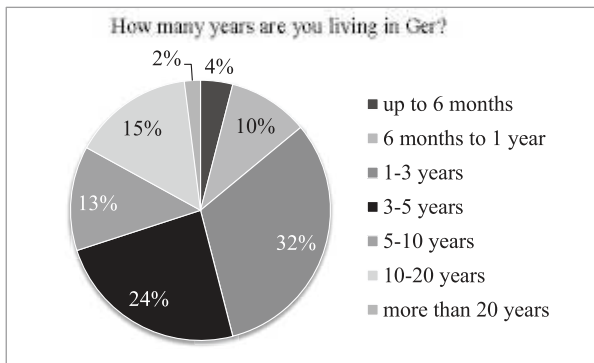


Fig.10 Years living in Ger

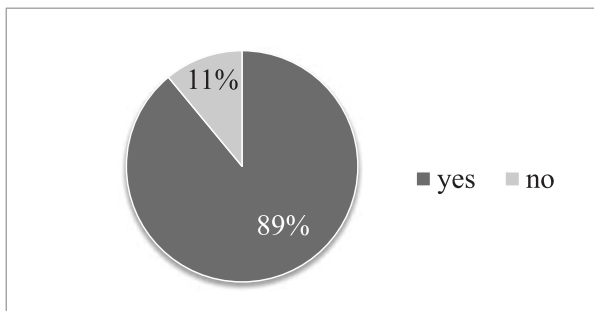


Fig.11 Satisfaction level for the Ger area environment (answer from the residents living near to the center)

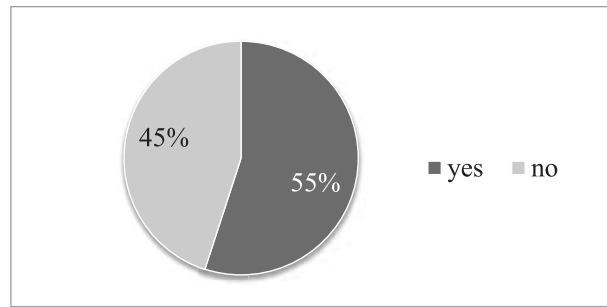


Fig.12 Satisfaction level for the Ger area environment (answer from the residents living at the urban fringe)

Although only 55 % of the residents living in Ger area at the urban fringe are satisfied for their housing condition, 89 % of the residents living near to the city center are satisfied with their housing condition.

Moreover, 32 % of respondents have answered that they prefer living in cheap low storey houses, 27 % of respondents prefer apartments, 22 % of respondents prefer improved Ger, 17 % of the respondents prefer comfortable private houses, and 2 % of respondents prefer other types of housing. No respondent has answered that they prefer public apartments.

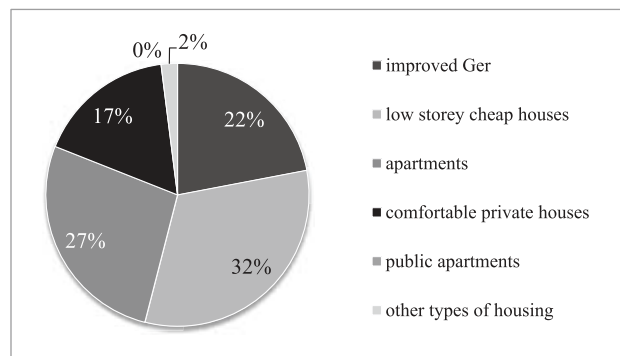


Fig.13 Preferred housing types

4 Conclusion

Based on the analysis and findings of the survey conducted in central and urban fringe Ger settlements of Ulaanbaatar city, the following recommendations are defined:

- 1) 60 % of the total households of Ulaanbaatar city are living in Ger areas. 21.8 % of households that are living in Ger area are still living in Gers. These statistics suggest that the nomadic lifestyle is shifting into the settled one.

- 2) As for the size of Gers which is one of the main factors of housing condition, most of the households are living in the Ger with 5 hanas, which is considered relatively appropriate size of floor area. The average size of the Gers with 5 hanas is 19.3 m²¹⁾.
- 3) Ger plots are planned with the consideration of spatial pattern, density, land price, and land regulations. Most of the residents already owned the land for their Ger plots.
- 4) There are no mixed use areas with social, cultural, commercial and recreational facilities in Ger areas especially in suburban Ger areas.
- 5) Human activities (latrine, waste water disposal, smoke, and solid waste etc.) affect the adequate living environment.
- 6) Because of the low income, the Ger area residents prefer cheap low storey housing types instead of the expensive apartments. Also, some of the residents prefer living in improved Ger dwelling with the traditional lifestyle.

Vocabulary

Ger– tent like traditional dwelling with wooden structure and felt covers

Hana – Wooden structure which also defines the size of Ger

Tugrik ₮ – Mongolian currency (1 USD =1,780 ₮)

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