ABSTRACT

RISHA system of Petogogan’s row house in South Jakarta, is applied to solve the problem of slum settlement area along the Krukut river bank. The inhabitants of the row house have their own assessment in term of the need level for living. By using quantitative - QUALITATIVE approach, it is uncovered that the inhabitants have the concept of nearly adequate to maintain the occupying space which actually does not quite accommodate their daily activities. However, they arrange the space in certain ways to meet their needs. ‘Nearly adequate’ concept consists of three unique ideas: flexible, economic and it manifests the concept of sincerity. At the end of this article will be presented about a model of that ‘nearly adequate’ concept.

Keywords: Row house, level of need, ‘nearly adequate’ concept.

I. INTRODUCTION

The rapid growth of population in Jakarta makes the city run out of housing space. As a result, some citizens use part of urban space for housing illegally. For instance some build houses on river banks. Such phenomenon spreads out and causes the development of slum areas. This has become a great challenge in reducing slum settlement to zero percent in 2019. Therefore, regulations and inter-sector collaboration programs are needed to solve the slum settlement problem in national scale, which cannot be done only by top down approach, but it also needs bottom up strategy.

Petogogan slum settlement, is one of many slum settlement areas in Jakarta, has been developed due to overpopulation of laborers settling down near Krukut river banks during Governor Husni Thamrin era. When Joko Widodo became the Governor of DKI Jakarta, revitalization program for this area began. Row house is a breakthrough in settlement arrangement and construction. Dr. Ir. Dedy Supriadi Priatna (Kementerian Perencanaan Pembangunan Nasional or Badan Perencanaan Pembangunan Nasional/BAPPENAS) and Agus Sadana (2014) stated that row house is built for citizens so they have a better environment with standardized house type (SNI 03-6981-2004). According to standard, it is stated that the maximum length of the row of row house is 60 meters. To save time and money, employing RISHA (Rumah Instan Sederhana Sehat/Basic Healthy Instant House) system is considered appropriate. This system is developed by PUSLITBANGKIM PU.
After moving to the new house, inhabitants usually need some adaptation/bionomic (Marrans in Snyder, 1984). The adaptation process happens since inhabitants need to adjust themselves to the physical building or adjust the physical building to their needs.

During the bionomic process, some emerging incompatibilities are communicated by the inhabitants as uncomfortable situations. This is possible because inhabitants’ needs were not considered by the architect who designed the house. Therefore, architects should gain access to information of inhabitants’ needs. Taking that into consideration, this research is aimed to identify the needs of Petogogan row house inhabitants in regards of spatial layout.

II. METHODOLOGY

This research employs QUALITATIVE-quantitative approach. Capitalization of QUALITATIVE term shows that research process is dominated by qualitative approach and both approaches complete each other (Creswell, 2014), and with research steps of Ambrose (2010) and Pena’s (2003) concept. Research focus is row house in Petogogan Sub-district, Kebayoran Baru District, South Jakarta. Research samples are houses of type 36, 2x6 m² size, 2 floors; and type 18, 3x6m², 1 floor. There are 40 respondents in total.

Data were acquired through Grand Tour and Mini Tour. Data acquisition technique includes direct observation, interview, and questionnaire. Questionnaire result is in the form of numerical values enriched with qualitative description. Percentage of each variable is basis to make diagrams representing need level (referring to Abraham Maslow’s theory about human’s basic needs transposed by Toby Israel, 2003). Data and information were processed and categorized into themes. Each theme is related one another to produce a holistic conceptual model.

III. THEORETICAL REVIEW

To figure out inhabitants’ needs, Abraham Maslow’s theory about human’s basic needs that is transposed by Toby Israel (2003) becomes the main basis of this research. In accordance with bionomic theory, during inhabiting process, there is adaptation phase identified with layout adjustment (Weitten and Lloyd, 2009). Ordering the living space considered as a better solution to inhabitants to fulfill their needs. The physical elements shaping the living space are used to fulfill the needs of personal/family territory (Rapoport, 1982).

IV. FINDINGS

IV.1. Level of Inhabitants’ Needs

Variables used to measure the fulfillment of inhabitants’ needs are: need of house as...
shelter, house as psychological need, house as social need, house as aesthetic need, and house as self-actualization need. Research result showing general inhabitants’ needs fulfillment through houses in Kampung Deret Petogogan can be seen in the following chart:

80% of inhabitants stated that RISHA houses had adequately fulfilled their needs of shelter. This assumption of adequacy is compared to their previous experience while they lived in river banks with impermanent buildings and uninhabitable houses. Therefore, houses granted by the government, as a substitute for their previous house, are deemed a blessing in their lives. The inhabitants realized that house price today is no longer affordable, that the existing condition is nearly adequate.

20% of inhabitants stated that the house granted by the government had not adequately fulfilled their needs. The reason is that their previous houses were deemed more spacious and can fulfill their needs better. Meanwhile, the government, revitalizing slum settlement in the area, dismantled all pre-existing buildings.

64.75% of inhabitants stated that the granted house had fulfilled psychological needs. The house has been deemed adequate as a means to share love and feeling of belonging. Things lacking according to the inhabitants are that bedrooms have not been compatible with inhabitants’ privacy, that inhabitants made an adjustment by adding permanent or impermanent partition. Partition materials vary according to inhabitants’ resources.
62.19% of inhabitants stated that the house had fulfilled their need of social interaction with their neighbor. Limited dimensional space is not a barrier for them to communicate and socialize. However, 37.71% of inhabitants stated that the available space is a barrier since it hinders their families to visit them or to stay overnight.

52.50% of inhabitants stated that the house granted by the government has been aesthetically adequate. For them, aesthetic elements in a house are not the most important thing. If they need aesthetic element, they will refer to their financial resource that they can feel enough with the pre-existing situation.

40% of inhabitants stated that RISHA house has been adequate for self-actualization. The house granted by the government has been a part of their self-actualization, since having a shelter with current economic situation is beyond their imagination. Nevertheless, 60% of inhabitants thought that the house granted by the government had not been adequate for self-actualization. This is caused by their previous situation when the row house had not been built. Their previous house, built with their well economic condition, was better compared to the average houses in the neighborhood. That’s why they insisted that the previous house was better for self-actualization.

Besides, some inhabitants stated that the house granted by the government worsened their economic and social condition. The reason is that their current house hinders them to stay and gather with their relatives, much less to rent extra room.

Questionnaire result of inhabitants’ needs level indicates that even though the RISHA house they live in has some limitations, more than 50% inhabitants answered that their house had been adequate as a shelter, for socializing, for sharing love. Unfulfilled inhabitant’s needs are made adequate through spatial arrangement.

II.2 Spatial Arrangement Pattern

Inhabitants arranged the space by sharing space, modifying space, adding space, extending space to the nearest space, and mix-using. The first phenomenon is shared space. This phenomenon is identified by sharing a room with someone else and/or using room for different activities at the same time. 40 inhabitants use spaces by sharing it as a solution to limited space inside the house. The second phenomenon is modifying rooms. This phenomenon is identified on bathroom space. 25 inhabitants use their bathrooms to wash dishes. 27 inhabitants use bathrooms to do laundry. Bathrooms are not only for doing manual laundry, but also for placing washing machines.
The third phenomenon is added space. This phenomenon is identified on additional space for cooking, sanitary, and bedroom. Inhabitants added such spaces since the house granted by the government did not have rooms for those functions. 3 inhabitants added bathroom spaces and 26 inhabitants made partitions to add bedrooms. Regarding materials for bedroom partitions, 4 inhabitants used brick wall, 6 inhabitants used triplex, 2 inhabitants used triplex and curtain, 3 inhabitants used curtain, 9 inhabitants used furniture, 3 inhabitants used furniture and curtain, and 1 inhabitant used folding door.

The fourth phenomenon is extended spaces. Extending spaces happens at the front part of the house whose space is used for commercial activity. For commercial purpose, the front window is used as buying-selling access that the terrace becomes an extension for commercial space. Terraces no longer used as leisure space but as circulation space. 13 inhabitants used terrace as extension of commercial activity. 7 inhabitants used it as storage, 17 inhabitants used it as living room, 2 inhabitants used as dish-washing area, and 2 inhabitants used it as clothes-washing area by putting their washing machine at terrace. 35 inhabitants used terrace to dry their laundry, and 2 inhabitants used it as bedroom at night.

Figure 2: Layout sample of shared spaces (1,2) and modified spaces (3,4)
Source: Author, 2015.
The fifth phenomenon is multifunctional spaces. 40 inhabitants used spaces at their houses as multifunctional space. If it is needed, inhabitants will move movable stuff to get extra space they need. The same space, at the same time is used for different purpose. It can be used by another inhabitant for different purposes. The space can be used consecutively by different inhabitants, at different times, for different purposes.

### III.3 Category of Room's Themes

From the above explanation, it is implicitly seen that the concept employed by inhabitants in aranging spaces is motivated by conomic, physical, and sincerity dimensions. The unique concept for continuing their living is: to live as such to fulfill one’s needs despite limited finance. Economic and spatial barrier encourage
the inhabitants more adaptable to the situation.

Such submission is reflected in the questionnaire in which 80% of inhabitants stated that the row house they were living in had been adequate as shelter; 62.19% stated that it had been adequate for social purpose; 52.5% regarded RISHA house had fulfilled aesthetic needs; 64.75% deemed it had been enough for sharing love with family; even though 60% of inhabitants stated that the house had not been enough for self-actualization.

Research result identifies some inconsistency between what was written on the questionnaire and what was done. More than 50% of inhabitants answered that RISHA house were adequate as shelter, socializing and sharing love. However, inhabitants did some addition, modification, and extensification. This is basically related to: the inhabitants’ statement on ‘nearly adequate’; the inhabitants’ concept that the house granted by the governmentis deemed a graceful blessing; the inhabitants’ awareness that their limited financial condition could not afford a house today.

The added, modified, extentified, or shared spaces are strategies of the inhabitants manifested inthe notion of ‘nearly adequate’. A space having many functions or shared with others is a technique to fulfill inhabitants’ needs in respect of time and space. Therefore, the space becomes flexible.

‘Nearly adequate’ space has the following characteristics:

- Space should be economical, that is a space arranged based on minimum-budget consideration to fulfill inhabitants’ needs.
- Space should be flexible, that is a space arranged based on need-fulfilment consideration to multifunction the space combined with time management. Flexible space consists of: 1) Shared space, a space used consecutively by many and/or shared with others; 2) Modified space is a space whose position and/or function is modified; 3) Additional space is a space caused by extra needs requiring extra space. Additional spaces include; 4) Extended space is a space caused by an activity extending from one space to another; 5) Multi-purposed space is a space caused by using a space for more than one purpose. This includes using a space at the same time for different purpose and/or using a space for different purposes at different times.
- Space considered as a manifestation of sincerity, that is a space as an embodiment of submission (be thankful for receiving graceful blessing) of the inhabitants. The concept has encouraged the inhabitants to arrange the spaces effectively and efficiently.
V. CONCLUSION

The factors affecting the decision of inhabitants of Petogogan row house in arranging spaces is ‘nearly adequate’ concept. In ‘nearly adequate’ concept, is contained: creating spaces which are economical, flexible, and as manifestation of sincerity. Flexible space is a strategy to overcome limited space by sharing it, modifying it, adding more space, extending it, and making the space as multipurpose space. Although inhabitants have been limited physically and economically, inadequacy was made adequate by “nearly adequate” through the concept of flexibility and efficiency. Fulfillment that has not been physically and economically adequate encouraged the inhabitants to CREATE a concept of “nearly adequate” through ethical dimension.

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