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## Low-income Housing System Scheme in Developing Country —Case Study on La Paz City, Bolivia—

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The main objective of this research is to construct a hierarchical scheme in which different low-income housing sub-systems can be identified based on the low-income housing system concept. The scheme is to find out the desire response to the housing problem. Its implementation will enable us to know and analyze the means that low-income people use to get shelter, and help us understanding the housing problem of real magnitude. This scheme is supported through different theoretical examples which should clarify for planners, policy makers as well as community the achievement of more effective responses to improve the living conditions of a significant portion of Bolivia's urban population.

*Keywords* : Housing policy, Low-income housing, Developing country, Bolivia, Urban poverty

住宅政策, 低所得者住宅, 発展途上国, ボリビア, 貧困

### 1. INTRODUCTION

For the last decades, Bolivian economy has been conspicuously ineffective in providing basic housing production and financing services for the poor. The formal mechanisms tend to produce solutions that are either sub-standard or expensive. A large number of low-income families are forced to reside in dwellings, which lack basic sanitation services, are overcrowded or provide insufficient protection from the environment. Private sectors activities are directed principally at high-income families and public policy is usually unable to make up for the deficiencies in the private provision of housing services. Hence, the housing problem is acute and its consequences are not only in terms of space or urban development, but also in terms of health, education and nourishment among others. The deteriorated housing conditions as a result of limitations in the national development process itself.

During the last twenty years, the lack of well implemented housing policies made things worse. The social sector affected by the housing problem does not have the real economic

capacity to afford a house and the national financial system does not have the conditions to subsidize public housing. Therefore, in some cases, informal settlements or slums seem to be the best response to the housing need. The existence of a few elaborated studies about low-income housing and the real magnitude of the housing problem in La Paz City restrict many possibilities in the process of finding out solutions. Nevertheless, the low-income housing system scheme could become a useful tool to achieve the improvement of dilapidated housing conditions.

“Low-income” is recognized by the amount of income or its equivalent received during a period of time in exchange for labor or services which is either at the level of the basic salary established by the Bolivian State (450.00 Bs per month) or below it.

In 1970s, with the main aim “decent shelter for everybody”, the Division of Structural Engineering and the Division of Community and Regional Development of the Asian Institute of Technology organized an international conference on low-income housing<sup>1)</sup>. This conference was focused on housing for low-income with low-cost and touched aspects as land, public facilities, monetary affairs and social services as well. “Tree structure” is the name of the arrangement classification of this scheme, in which a hierarchical order has

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been constructed amongst seven housing sub-systems, which are sub-divided themselves into another categories and these categories are divided into sub-categories. This scheme, on the one hand, let us know and analyze all the means that low-income people use to get shelter, and on the other hand, it let us understand the real magnitude of the housing problem.

This study is considered as the first step in developing such method for knowing and evaluating the low-income housing system and the housing problem in the context of La Paz City, however similar ones have been implemented in Asian cities like Bombay, Jakarta, Colombo, Manila, Dhaka and Taipei<sup>1)</sup>.

As we all know, "housing" is considered as a basic need, a social right, and it is the basic cell of the urban structure. It is set up by the space in which family develops and it is not only the material but also the social shelter; the way in which housing satisfies the need of shelter to family is an important factor for the human development. Housing, in our case as professionals, becomes the main objective of our studies in the way of searching solutions to improve life conditions, and it says that housing is becoming the most commanding task of the immediate future, and solving the world's mass housing problems will be crucial test for man's intellect and organizational capacity<sup>2)</sup>. In order to look for these responses it is necessary to know how the housing reality is and what people do to solve the housing problem. Thus, this study should become a departure point for planners and policy makers to achieve more effective responses to improve the living conditions of a significant portion of the urban population of Bolivia.

## 2. OBJECTIVES

This study is focusing on the following two main objectives:

- (1) To construct a hierarchical scheme in which different low-income housing sub-systems can be identified in the context of La Paz City, based on the low-income housing system scheme which will let us know and analyze all the means that low-income people use to get shelter and at the same time we will be able to understand the real magnitude of the housing problem in order to achieve the desired responses.
- (2) Emerging from analysis, it will focus on La Paz City predominant sub-systems as well as tackling some housing problems.

By achieving these objectives, we are supposed to provide an enhanced understanding of the way in which the low-income housing system works in La Paz City by elaborating

a theoretical description and using some representative examples to explain about the actual housing conditions.

## 3. METHODOLOGY

The methodology used for this research is mostly based on document review concerning the housing issues in Bolivia and specifically the case of La Paz City and previous surveys in different residential neighborhoods. In this research, the national and international (published and unpublished) documents have been used as tools of information and the course of Housing and Building in Developing Countries, Catholic University of Leuven has supported studying a theoretical framework. The following steps point out a short summary:

- 1) Data analysis of background (national and regional level)
- 2) Case study on La Paz City by focusing on all the different housing systems that exist, taking into account the most representative examples described in detail (some of them shown by maps and some others by photographs) and classifying into categories.
- 3) Construction of the low-income housing system scheme, identifying all the existing housing categories with their complete definition and examples. This construction is based on previous surveys in several residential areas and classification of the different housing categories according to their own characteristics (geographical features, statistics, typology, tenure situation, construction materials, basic services, urban equipment).
- 4) Elaboration of a preliminary theoretical approach based on the research and low-income housing scheme.



Fig.1 Map of Republic of Bolivia

- 5) Finding out the most predominant housing problems as emerging from analysis and survey.
- 6) A glimpse to public housing policies in order to see how they have been working.

#### 4. BACKGROUND

##### 4.1 Outline of Bolivia

Bolivia, mediterranean country, located in the core of South America, has a territorial extension of 1,098,581 km<sup>2</sup> and a population of 8,274,325 inhabitants (in Year 2001) with a growth rate 1.69 %, which makes the country within the five highest growth rate countries in Latin America.

The central urban axis comprised by the three metropolitan areas, La Paz, Cochabamba and Santa Cruz concentrates the major activity, profits and population. Bolivia possesses an extended territory plentiful of natural resources, however the poverty levels are high; a considerable part of the population does not have adequate access to basic services, education, health care and housing. According to statistics, the urban poverty points out 49.50% of population while being 94.00% in the rural area.

##### 4.2 Housing Overview

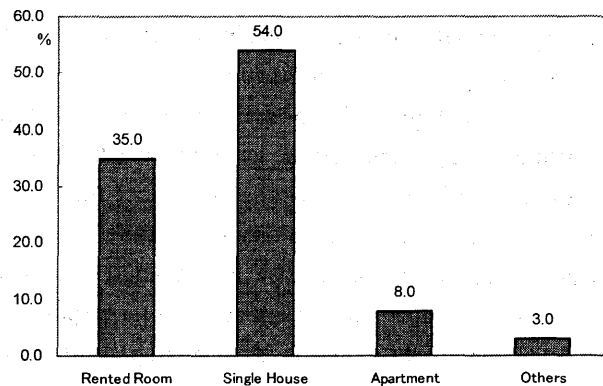
In developing countries, like Bolivia, the housing problem is not only related to the lack of dwellings, but it also has a structural development connotation. The housing problem affects to the social system stability, because its roots are socio-economical.

Based on the statistics, the country faces a serious housing situation at the qualitative and quantitative level, the former points out a deficit of more than 550,000 dwellings, and the latter a deficit of more than 260,000 dwellings. For examples, the housing statistics (see Fig.2, 3) shows the facts that;

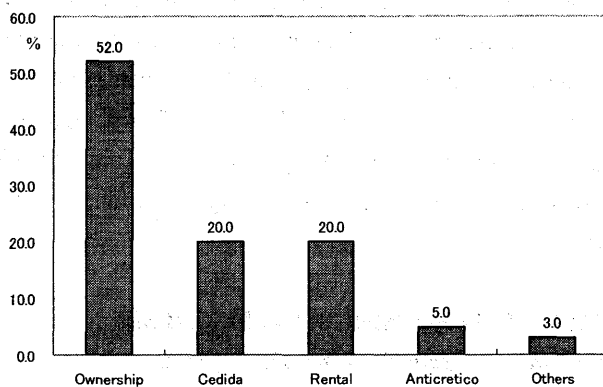
- 48.00% of the Bolivian population is not owner of the dwellings in which it lives.
- 39.00% does not have any bedroom and lives in a single room.
- 3.00% shares its room with another family.

49.50% of the Bolivian families inhabits in precarious dwellings. The precarious housings percentage in 1992 is 21.90 % in the urban area and 83.80 % in the rural area. It means that in the urban area, 21.90%of housings faces some kind of deficit related to construction materials (floors, walls and roofs), whereas in the rural area, it reaches to 83.80%.

Because of the accelerated and unequal urban growth, the inhabitants who live in the periphery areas face the highest poverty levels, not only because of lack of basic services or urban equipment, but also because of exclusion from housing policies. Poverty has a direct influence on housing.



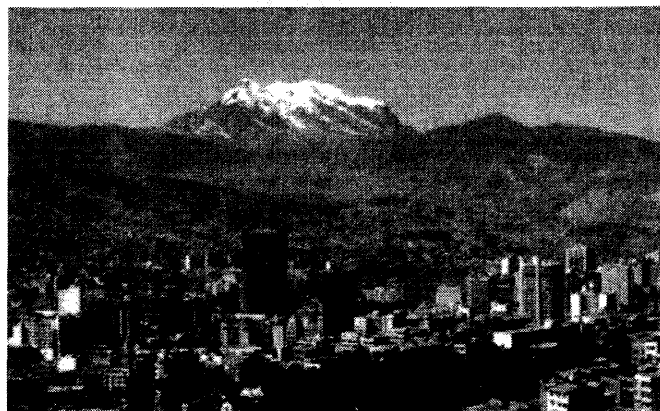
**Fig.2 Dwelling Type Percentage in Bolivia**  
Data source: Instituto Nacional de Estadística, La Paz, 1993



**Fig.3 Housing Tenure Percentage (Families) in Bolivia**  
Data source: Instituto Nacional de Estadística, La Paz, 1993

##### 4.3 Outline of La Paz City

La Paz City, administrative capital city of Bolivia is located at 3,600 meters above sea level with a population of 1,447,304 inhabitants (Year 2001). La Paz is a dramatic city, unlike any other major urban area in appearance. From the air, it looks like an inclined wide oval bowl; running along much of its base is ridge – a line of skyscrapers comprising the modern downtown area (see Photo 1). Two-thirds of La Paz's population lives within the bowl and up the sides, with upper class neighborhoods at the lowest point. The top edge of the bowl, El Alto, is part of the Altiplano Plateau and the zone of mixed low-income residential and industrial uses. The city is given additional



**Photo 1 View of La Paz City**

character by the nearby majestic mountain, Illimani, which looks over it from a height of more than 20,400 feet (6,200 km<sup>2</sup>).<sup>3)</sup>

La Paz was founded in 1548, in which the urban area was structured based on the major square following the Spanish grid pattern established by the conquerors, since then up to the end of 16<sup>th</sup> century the population, approximately, became 6,000 inhabitants. Nowadays, its basic infrastructure and urban equipment are not enough to provide to all of the population and its route network becomes obsolete to support the urban growth. The role of the city and its economic dynamic force will provoke the population's increment from 1,447,304 in 2001 to 1,615,000 inhabitants in 2010. This population's increment will demand an urban area of 22,400 hectares, while there are nowadays only 5,600 hectares. Seeing that the space saturation into the slope area relative to the limitation of topography and geologic difficulties, it could be expected that only the Altiplano Plateau will possibly offer the necessary space for the urban growth.

## 5. LOW INCOME HOUSING SYSTEM SCHEME

### 5.1 Low-income Housing System Categories

The following scheme (Fig. 4) shows the low income-housing system in La Paz City, which was constructed based on the surveys and researches in different areas. This scheme is divided into different analytical components and helps us understanding its performances. Some housing types are also mentioned using their original Spanish name.

### 5.2 Theoretical Approach Using the Most Representative Examples

#### (1) Squatters Housing Sub-system



Photo 2 Example of Squatter Settlements

One of the most vexing problems is confronting the illegal occupation of land. This is generally known by the term "squatting". Its most frequent causes are the great increase of population, the surge of people toward the city, and the nation incapacity to meet the needs of urban growth by providing the land and housing needed to accommodate its urban newcomers. Squatter urban settlements can be defined as units of self-constructed housing built on terrain seized and occupied illegally; either private or public land is inhabited by the very poor and developed without legal claims to the land and/or permission from the concerned authorities to build. They are also known as spontaneous settlements, shantytowns, informal settlements, uncontrolled settlements or *asentamientos clandestinos*.

Only 20.00% of these settlements have the drainage and sewage systems, the remaining 80.00% resort to community organization to create drainage systems that usually tend to be unhealthy; improvement of these zones becomes difficult due to their location (hillsides) and illegality.

However, squatters not only face dilapidated housing conditions, but also two serious problems (see Photo 2,3). First, they are always anxious due to danger, because there is a frequent risk of collapse because of slide-land. There have been many collapse cases, specially during raining season, most houses have been demolished or buried by mud, and people have died and others have lost their goods. In many of those cases, the government aid has always arrived late after the disaster destroyed the only thing that these people knew as a shelter. The second one is awareness of eviction, for example the case of *Arco Iris* (rainbow) squatter settlements could be mentioned, due to the destruction of several tents and precarious dwellings by the police, the affected ones decided not to leave their lands and keep inhabiting there, though. After the weeping and the sorrow that was left behind by the brutal police action, the inhabitants in this conflicted zone had to look among the debris "rubbish", among the burned

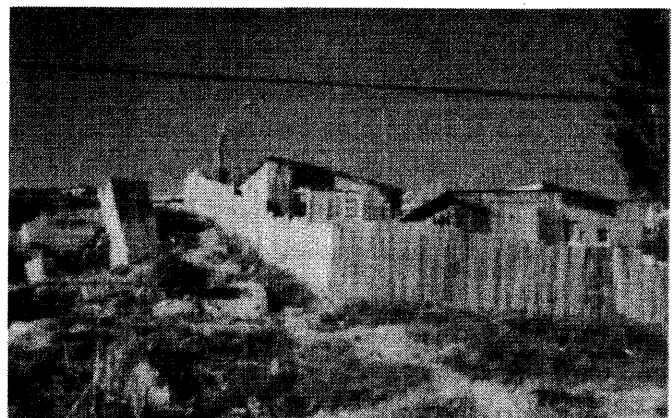
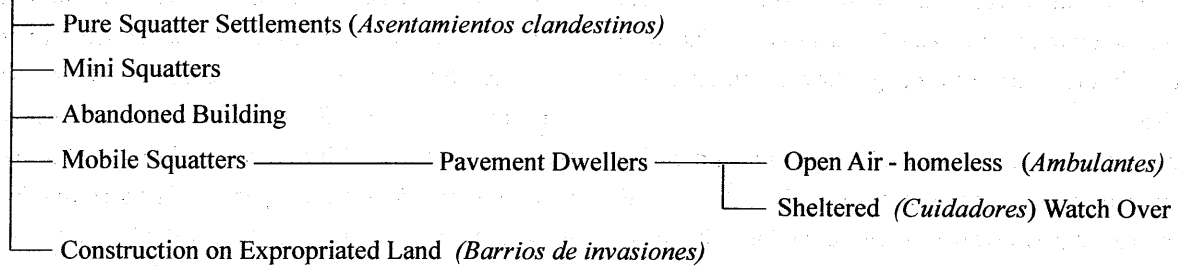
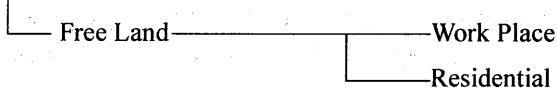


Photo 3 Example of Squatter Settlements (Cotahuma)

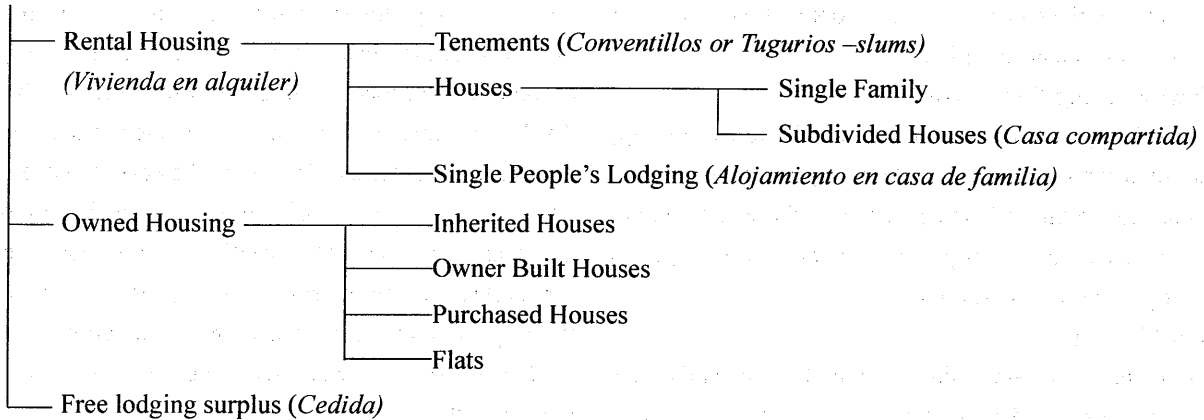
**A. SQUATTER HOUSING SUB-SYSTEM**



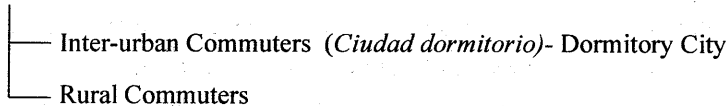
**B. TEMPORARY LAND TENURE HOUSING SUB-SYSTEM**



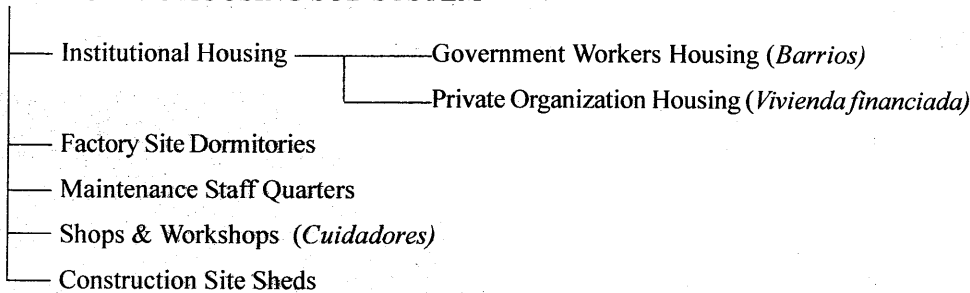
**C. PRIVATE HOUSING SUB-SYSTEM**



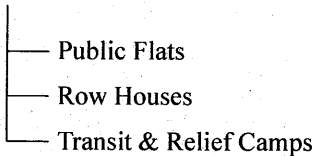
**D. COMMUTERS HOUSING SUB-SYSTEM**



**E. EMPLOYEES HOUSING SUB-SYSTEM**



**F. PUBLIC CONSTRUCTION HOUSING SUB-SYSTEM**



**Fig.4** Low-income Housing System Categories of La Paz City

belongings in order to find some of their belongings so they can keep living in that place. The left out families, from their shacks, in which numerous families used to live, affirmed that they had no shelter to be under and they also said, “ That they were staying in the place even though they had to die in the cold weather”.

As more people pour into La Paz City and appropriate land, the government is finding it more difficult to dislodge them or to protect private owners whose land is being taken over. It challenges the status of governments as agencies for maintaining order and law. As the squatters continue to increase their numbers, their influence and resistance to ouster grows, and as officials demonstrate their inability to grapple with the issue, still more immigrant move in to take advantage of official helplessness or acquiescence. The squatting situation has begun to affect not only the city physical development but also often its economic and social stability.

**(2) Private Housing Sub-system**

In this type of housing, there is private ownership, dwellers own land and house without any governmental or institutional commitment. In this part, we emphase on the rental housing and free lodging surplus as the characteristic points of the category in this sub-system.

**a) Rental Housing**

In La Paz City, approximately only four in ten families own a house (see Fig. 5); the rest resort to different housing types, within this we found that “rental housing” is the most predominant. The rental housing consists of renting one or more rooms in a house of another family in old subdivided houses or lodging houses (see Photo 4). Rental housing type

constitutes an integrated and an important part of the housing sector for low-income people. Rental housing market embraces different modalities. It is not only located in the central areas of the city, but also in the periphery and in the self-built vicinities.

Rental housing type has come into being one of the most important alternatives to the shelter need, also the World Bank has considered it as a new priority within the market housing for the low-income people. This assertion is based on the experience in which the World Bank shows. On the one hand, that house owners can fulfill easily and much faster their financial obligations if they rent a part of their houses, and on the other hand, supporting rental housing type would offer new housing opportunities for the economically disadvantaged people.

In La Paz City, most of the activities are concentrated in the generating capital central area, and as a result, the less favored areas have been displaced. Therefore the living standard becomes more expensive in the downtown area. It is probably that low-income and low-middle-income sectors are the most disadvantaged in terms of residence, however some remain there not only because of job opportunities but also due to mountainous character of La Paz City, the transportation network is not effective, consequently more expensive to commute from the city outskirts. For those whose decision is to remain, “*conventillos*” are the answer to their housing need, also well known as slums.

An old colonial house type with one or more patios, in which each one of them is surrounded by a number of rooms connected amongst them through a gallery, is known as a “*conventillo*” (see Photo 5). These rooms are usually rented in a independent way, and one or two are occupied by a family who shares the basic service facilities. Generally, these services are a potable water tap and a toilet, and both of them most of the time located in one of the patios; there is a semi-private open



**Photo 4** Example of Tenements Type (Rental Housing)



**Photo 5** Example of *Conventillos* Housing Type



space that gives the pedestrian access into the street. Usually, its inhabitants belong to low-income or low-middle-income class. This housing type has been also called slums of despair or *tugurios*. In another Latin American countries *conventillos* are known as “*casas subdivididas*” (sub-divided houses) in Lima, “*casas de comodo*” (lodging house) in Rio de Janeiro, “*mesones*” in San Salvador, “*casa de inquilinato*” (house of renting) in Panama city, “*claustrros*” (cloister) in Colombia, “*conventillos*” in Santiago and “*vencidades*” (vicinity) in Mexico city, furthermore each of them could have different connotations. In La Paz as well as in Santiago the word *conventillo*, literally translated, means small convent, however sometimes it has been used as an underestimated term<sup>4</sup>).

Most of the *conventillos* are located in which is known as Urban Central Area, delimited in 1976 by La Paz Municipality, which is divided into five areas, this division was elaborated based on different parameters as origin, density, age, parceling, function, etc.

The room number varies from eight to forty, built in an average area of 600 m<sup>2</sup>, but it is also possible to find one with more than 1,500 m<sup>2</sup>. Most of them have deteriorated quality conditions and high built up density, lacking maintenance. Furthermore, there are a reduced number of showers, which originates hygienic troubles. Electricity system is much better implemented, almost 78.00% has private connection, and the rest shares this service. Most of the families live in one or two rooms.

Lately, because of the localization impact of economic activities in the central area, some *conventillos* are being demolished to build new apartment buildings or skyscrapers. Therefore, the housing deficit in this area is increasing, forcing people to move in to El Alto or to hillsides.

**b) Free Lodging Surplus**

A given dwelling to a new occupant who neither rents nor owns the house. In La Paz City, the age of lower and middle-income households is an important factor in their dwelling type



**Photo 6** Example of *Cedida* Housing Type

and tenure situation. The reason is that the housing market in older and more central neighborhoods of La Paz has become almost inaccessible to younger households. There is, however, an important exception. A considerable number of younger households can live in houses that are lent to them (often by relatives on a rent free-basis). This tenure form of *cedida* (see Photo 6) provides them with two big advantages: they save considerably on housing expenditures; and then they live closer to the city center would be possible if they had to rent accommodation. In this way, *cedida* helps younger lower and middle-income households to “cope” with difficult economic circumstances<sup>5</sup>.

*Cedida* is a tenure situation in which a dwelling is temporarily lent without charging any rent. The most common form of *cedida* is when owners lend (part of) their house or plot to the household of a relative. Normally, this kind of *cedida* is implicitly meant to be temporary and, often, a moral obligation is felt not to profit from the help offered for a long time.

**6. RENTAL HOUSING AS ONE OF THE PREDOMINANT SUB-SYSTEMS**

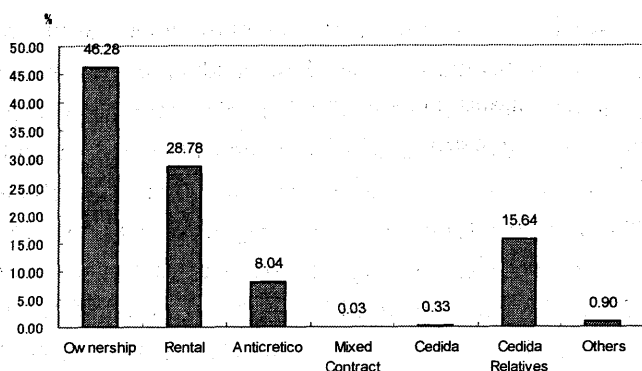
In La Paz City, low-and middle-income households have three general preferences concerning housing:

- in principle to own their housing.
- to live close to the center (known as *La Cuenca*).
- to live in independent houses prior to other dwellings types.

However, the preferences for ownership and location in *La Cuenca* are, to large extent, contradictory to the reality. Ownership is still fairly easy to achieve in La Paz by building a dwelling on the outskirts of El Alto. Nonetheless, this implies a great distance from the city to the center and low services level. It strongly contrasts with the preference to live close to the city center and, preferably, in *La Cuenca*. But living closer to the center (and a lower altitude) is, however, heavily constrained by the limited availability of vacant dwellings, which results in prices and rents beyond the means of the lower and most of the middle-income groups<sup>6</sup>. Therefore, another way to find shelter instead of ownership is through rental type, which is not only found in the city center but also in the *barrios obreros*, marginal villas or squatters. It is important to mention that this category is not only found under the private housing sub-system, but also in the remaining ones.

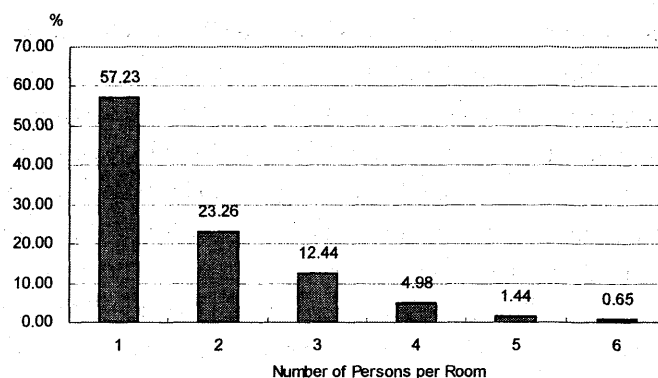
Rent is considered as a periodical payment due from a tenant for the use of land, buildings, or other property. It is usually payable in money but sometimes paid in kind. If payable to the landlord, as under a lease, it is called rent services, if to any other person, it is called a rent charge. According to the British economist Alfred Marshall, rent is the income derived





**Fig.5** Housing Tenure Situation of La Paz City

Data source: Instituto Nacional de Estadística, La Paz, 1993



**Fig. 6** Persons per Room Used to Sleep

Data source: Instituto Nacional de Estadística, La Paz, 1993

from the ownership of land and other free gifts of nature<sup>1)</sup>. The level of rent depends on housing type, services and location, thus the better location, the most expensive the rent, and vice versa. (see Fig. 5)

Besides single or subdivided house, a very common case of rental type for low-income people in La Paz, is the one in which a room is rented, it can be placed either near to the city because of job opportunities or in the city fringes, in most of the cases the main problem that this type of tenure faces is overcrowding, sometimes more than four persons living in a room in which all functions are mixed. Usually they share service facilities with the house owner or with other renters. Rented rooms also can be found in many spontaneous settlements; many households in illegal settlements rent out a room to individuals or to another family to supplement their income.

## 7. HOUSING PROBLEMS

### AS EMERGING FROM ANALYSIS

#### 7.1 Problems in General

Most of the houses in La Paz City were developed within the "informal housing sector". This does not mean that the majority of the population is living in dwellings actually built by them. Many households have bought or inherited an "informal" dwelling from the original constructor, and many others live in such dwellings on a rental or other basis<sup>5)</sup>.

Still many people live in substandard housing conditions, and this situation is likely to worsen year after year. The problem has become increasingly acute in the capital city of Bolivia, where slums and squatter settlements spread out vertiginously. Overcrowding and lack of basic sanitary facilities are the most striking features of poor housing, the former continues to increase at an alarming rate in the poor dwellings; already it is found three or more persons to a room (see Fig. 6). Houses, in most cases without either water supply or waste collection

public service and with leaking roofs and cracked walls, easily attract mice and insects, with the resultant spread of diseases.

#### 7.2 Most Vexing Problems

The accelerated urban growth, because of migration and natural growth has undeniable consequences at the level of housing. The city scheme has changed; most of the central area has become into a commercial and financial center, in which the space destined to housing faces deterioration. As a result, the low-income sectors have been displaced to distant zones, which many of them have become informal settlements with precarious dwellings.

Amongst all the housing problems emerging from analysis, the following must be considered as predominant:

- 53.00% of the population are not owners of the dwelling in which they live.
- 39.00% have not bedroom and live in a single room.
- 3.00% share their room with another family.
- Lack of basic sanitary facilities is the most striking features of poor housing.
- Gap between poor and rich as an important element that determines housing condition.
- Income as a factor of social segregation as well as a factor that determines zoning segregation.
- Housing and urban poverty, overcrowded dwellings, shortage.
- The utilities are deficient in deprived zones, thus there is an increase in disease and death.
- 84.70% has access to a water supply.
- 94.18% has access to the electricity system.
- 63.29% has sanitary services.

## 8. NATIONAL HOUSING FINANCIAL SYSTEM

During the last 70 years the Bolivian government has

executed public housing policies, which have faced different transformations and reforms till these days<sup>7)</sup>.

#### **(1) 1924 -1964 Period**

In 1924, the Obligatory Saving Law was promulgated, and later on, in 1927 the Worker Housing Departmental Council was created, in which the main task was acquire plots and financing to built housing for workers. After some years another new council was established whose main objective was to build “*barrios obreros*” (workers neighborhoods). Between 1948 and 1955, 671 dwelling were built and 1,384 credits were granted, and most of those houses were subsidized. In 1956, the National Housing Institute were created, in which its funds came from patroness contribution (2.00 %) over worker’s salary. This institution was in charge of providing subsidized housing, in which 50.00 % of the total cost was considered as credit and the remaining 50.00 % totally subsidized. Between, 1956 and 1964, 836 dwelling units were built. Those housing projects were oriented to workers, but they were expensive to afford by the target group, though.

#### **(2) 1964 – 1987 Period**

The National Housing Council was formed in 1964 with the aim to develop a national housing plan to lead and coordinate at the national level all the activities related to urban housing, to foster the construction industry and to research about the country-housing problem. Its funds came from patroness contribution over worker’s salary, 1.00 % of the taxes for industry and construction product sales, and a percentage of the private mining sales. 7,249 dwelling were constructed between 1965 and 1974.

In 1970, Ministry of Housing was created, and CONAVI (National Housing Council) became part of it, as a result gradual changes occurred. The economic resources distribution started being unequal and the worker sector did not receive the benefits according to its contribution, consequently different housing councils oriented to a specific workers group were established, as COVIMIN (National Miners Council), CONVICO (National Commerce Council), CONVIFAG (National Manufacturers Council) amongst others. These new councils financed 9,348 new dwellings between 1975 and 1985.

It is important to mention that all of these housing projects were only destined to workers who economically contributed to these institutions with nominal amounts. During the period of 1965-1987, 33,089 houses were built, however the number of associates (workers) was 530,000 which is much higher than the number of built house.

#### **(3) 1987 – 1997 Period**

In 1987, CONAVI faced economic and administrative problems, because for bureaucracy, almost 45.00% of its capital

was destined to salaries, and by that time Bolivia also confronted a hyperinflation period. A new institution was created as the Housing Bank that was in charge of financing national housing projects, urban development and basic sanitation, to foster new construction technologies and to import materials and machinery. Unfortunately this institution closed down because of bankruptcy and its contribution to the housing sector was not considerable.

Again, a new institution had to be created as National Housing Fund (FONVI) in which its principal tasks were to organize financial public housing policies, to grant credits for construction, enlargement, improvement of housing and endowment of infrastructure and to foster saving. This fund worked out until 1992, and was closed down due to financial problems. By that time, 8,092 dwellings were built.

The National Social Housing Fund (FONVIS) replaced FONVI in 1992. The principal objectives of this new housing institution were to get financial resources from workers’ economic contributions or through grants coming from national or international sponsors in order to invest on housing programs, to implement financial housing policies and to foster housing conditions through constructing improvement, enlargement or maintenance. It is important to point out that FONVIS distinguished two kind of programs; the one is named “projects program” that was in charge of financing basic services for one, two or three-room houses and construction of apartment buildings, and the other is “housing betterment program” with loans to get title deed, to buy plots, old and new houses, to pay *anticretico* or for maintenance. Therefore it would be understood that project program looked at the quantitative deficit and housing improvement program at qualitative one, in the former at the quantitative level 21,146 dwellings were built until 1996 and at the quantitative level 2,530 ones. However, this means that only 7.20% of all the total contributors were favored.

#### **(4) From 1997 to the Present**

Now a days the Ministry of Housing and Basic Services is implementing three new different projects: housing subsidy by providing the purchase of dwellings or maintenance of them in order to improve life conditions. However, this program embraces just the poorest human settlements in Bolivia for housing improvement in endemic zones in order to stop the transmission of Chagas disease; neighborhood improvement, which contributes in different aspects (amenities, equipment, infrastructure, etc) to improve some neighborhoods.

If we, for instance, take into account the housing deficit at qualitative and quantitative level, 550,000 dwellings in the former and more than 260,000 ones in the latter, during the last

70 years we could see that unfortunately a few have been the results. To the present, just 61,120 dwellings have been constructed (11.11% of the total housing deficit) and 23,031 improved (5.22%), this means an average of 1,202 dwellings per year.

Mostly, the middle and upper income people are the ones who benefit from credit or subsidy, because of the access to this public housing entity by people who must have a steady income. However, the questioning is how to support those who have unstable income or belong to the informal sector being the most affected by the housing problem. Unfortunately the public housing policies have embraced this sector only in a small percentage.

A factor that should also be taken into account for understanding why the results of the public policies have been a few, it is because period by period new housing entities have replaced old ones, and those new entities have not followed the organization structure in which the formers were set up. Consequently there is not sequence on pursuing the established objectives. Public housing policies for many years have had the same characteristic, in which little have been done. The public housing entities, unfortunately, have never had enough economic capacity to offer a solution to the housing problem, and usually they have faced administrative problems, losing in this way the necessary sequence for pursuing the desired objectives.

## 9. CONCLUSION

Through this study, we can point out that the housing improvement becomes an important aspect for improving our neighborhoods and cities. However, we do not know in depth the real magnitude of the housing problem and the question is which we should start from for finding out the desired responses. Therefore, a good step forward should be in elaborating the hierarchical housing system scheme, which let us clarify on the one hand the existing housing types, and on the other hand the problems and obstacles that hinder housing improvement.

From the development of the low-income housing system scheme we can get a better understanding about most of the housing systems of low-income people in La Paz City and establish that rental housing type is one of the most predominant sub-system to which low-income people resort. As emerging from analysis it enables to identify the existing housing problems and review how housing policies have been implemented.

The proposed scheme would be considered as a starting point for further and deeper researches for planners, decision makers as well as community in order to get decent shelter and

better life conditions. In addition, since this tree structure can be improved, multiplied and strengthened it cannot be only applied or adopted in the context of La Paz City but also in another regions, which pursue the same objective.

## 10. REFERENCES

- 1) SHUKTARA, M.: Low-income Housing System Delivery with Emphasis on Rental Housing, Master thesis, PGCHS-Katholieke Universiteit of Leuven, Belgium, 1993.
- 2) VERSCHURE, H.: An Housing and Development, an Evaluation of Concepts and Ideas with Case Studies Focusing on Policies and Spontaneous Settlements in Third World Countries, Vol. I, Ph.D thesis, PGCHS-KU Leuven, 1979, pp.1-15.
- 3) GILBERT, A.: The Latin American City, Latin American Bureau, London 1994.
- 4) BEIJAARD, F.: Los conventillos, vivienda en alquiler en el centro de la Paz, Editor CEDLA, La Paz, 1988.
- 5) BEIJAARD, F.: Rental and Rent-free Housing as Coping Mechanisms in La Paz, Bolivia, Environment and Urbanization, Urban Poverty II: from understanding to action, vol. 7, no. 2, 1995 October, pp.167-181.
- 6) HARDOY, JE. & SATTERHWAITE, D.: Squatter Citizen, Life in the Urban Third World, Earthscan Publications Ltd, London, 1989.
- 7) Ministerio de Desarrollo Humano: Lineamientos para una politica nacional de vivienda, La Paz, 1997.

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