

# Public Sector Housing Development in Sri Lanka

With Special Reference to Urban Informal  
Resettlements in Colombo

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## Abstract

Housing is a global problem. Particularly in third world countries, due to unplanned urbanization and rapid urban population growth, the housing problem, (mainly low income and lower middle income) is becoming increasingly severe.

Colombo is the commercial capitol of Sri Lanka and most of the commercial and administrative activities are concentrated in it. Due to urban migration, with people seeking better job opportunities, the low income and lower middle-income population has increased rapidly. This has resulted in unplanned and unauthorized informal settlements, mainly occupying urban areas with high commercial values. The government had implemented several housing policies to overcome this problem.

In this paper, the Author's intention is to describe the Governments' Housing Policies and the ways of implementation, especially in urban settlements and analyse various aspects that resulted after occupation. In conclusion, the Author intends to propose some guidelines to overcome negative aspects resulted in implementation of the housing policies.

## Introduction

### Objectives of Study

In implementing housing policies, most of the time, planning, designing, project managing and furnishing of infrastructure facilities are carry out by the public sector organizations. In Colombo, Colombo Municipal Council has to play a major role in housing development, provision of infrastructure facilities and road development. As an architect in Colombo Municipal Council, knowing prevailing housing policies and their outcome, is very essential.

The objective of this paper is to describe Public Sector Mass Housing in Sri Lanka with special reference to Urban Settlements of Colombo, for lower middle and low-income population. The main target group of these resettlements are the city's informal sector. The author intends to analyse the government policies implemented to solve the problem of shelter for homeless by separating positive and negative aspects and to conclude with possible guidelines to overcome the negative aspects.

### Urbanization and Housing Problem

Country's administrative and commercial activities are mostly concentrated in and around the urban areas, especially within the Colombo Metropolitan. Colombo is the Commercial Capitol of Sri Lanka. Its resident population is 800,000 and transit

population is 400,000. The annual population growth rate is 1.14%. The land area of Colombo is 37.31 km<sup>2</sup>, having a road network about 480 km.

Colombo started its development as a city during the colonial era (mainly during British period). Hence, the structure of the city has mostly influenced by British planning concepts. As a result, most of the major activities are concentrated within the Central Business District. Such activities are,

- 1 Central Bus Station
- 2 Railway Station
- 3 Harbour
- 4 Wholesale Market
- 5 Retail Market
- 6 Administration

People from sub urban and rural areas migrated to Colombo in search of better occupations as most of the public and private sector jobs and informal day-to-day occupations are concentrated in the city. This has resulted an increment of low income and lower middle-income population. The problem of shelter was also increased with the population growth resulting in unsustainable and unauthorized slums and shanties. At present, there are about 1070 such settlements within the Colombo Municipal limits.

Since early 1950's, the government of Sri Lanka has implemented several policies to overcome the problem of shelter for homeless, both in rural and in urban areas. Some of these proposals were successful and some failed partially or totally.

### **Role of Informal Sector in an Urban Environment**

Even though urban informal settlements are unauthorized, their existence is essential in carrying out most of the city's activities. Some of such activities are as follows.

- 1 Porters (Mainly in harbour and wholesale market)
- 2 Informal trade (Pavement hawkers)
- 3 Second hand markets
- 4 Food sellers

Even the informal sector is categorized in low income or lower middle-income group; the income level of the majority is comparatively high. But due to lack of recognition, education, coordination and control, their self development is minimal and it is the responsibility of the government to upgrade the living conditions of these people rather than discriminating them as unauthorized, as their existence is essential in smooth functioning of the city.

## **Public Sector Housing Development in Sri Lanka**

Public sector housing in Sri Lanka plays an important role in the process of socio cultural and economical change and development. All the governments since independence in 1948 gave much priority to housing development and implemented several policies. In general, the Government plays multiple roles and acts as a policy maker, regulating authority, housing administrator, financing agency, facilitator, infrastructure developer, landlord and operation and maintenance manager. These roles are explained as follows.

### **Policy Maker**

The government, from time to time, formulates and implements housing policies to cater for the problem of shelter considering following aspects.

- 1 Nature of housing problem
- 2 Economy
- 3 Political aspects
- 4 Resources

### **Regulating Authority**

The National Governmental Agencies stipulate zoning, planning & building regulations, environmental & density control etc. It has also taken measures to protect rights of tenants and to regulate ownership of housing properties.

### **Housing Administrator**

The government, as a housing administrator, encourages private sector investors in housing by offering tax incentives, duty concessions, and land for housing development at concessionary terms etc.

### **Housing Developer**

As a developer on behalf of government, government agencies construct new housing schemes for lower middle income and low-income homeless people in both urban and rural areas. It also offers serviced land for individual builders.

### **Financer**

The government offer finances through various national agencies such as the State Mortgage Bank, National Housing Development Authority (NHDA) Housing Development Finance Company, other state banks, etc. In addition, special low interest loan schemes are available to government employees.

### **Infrastructure Developer**

Infrastructure development such as water supply, electricity, drainage, sewer, roads and sanitation, is primarily a responsibility of the state. These services are mainly provided through the Local Authorities, Water Supply and Drainage Board, Electricity Board, etc.

### **Operations and Maintenance Manager**

These functions are mainly for rental housing schemes and slum gardens. The Common Amenities Board established specially for the above-mentioned functions. Local Authorities are responsible for operational and maintenance functions of common elements including infrastructure services in housing schemes.

### **Changers in Policy Approaches**

Until 1953, public sector housing was limited to lending activities of Housing Loan Board. The first Ministry of Housing was established in 1953 and National Housing Department was formed under it. This was empowered to lend for housing and to undertake construction of houses. This department facilitated the public to construct houses by offering loans and made available lands for housing through Housing Co-operatives. It also constructed many urban housing schemes and flats.

After 1978, housing and urban development became one of the major investment programmes of the government. In 1979, National Housing Development Authority (NHDA) was established with the objective of accelerating the housing development activities. The NHDA Act empowered the Authority to operate in a much wider spectrum of activities, which included re-development of slum and shanty areas.

However, after 1983, due to the civil unrest of the country, the funds allocated for housing were reduced and diverted towards defence activities, resulting a drop in housing development activities. As a result, the country's homeless population increased and the government had to change the traditional policy of 'Provider' to 'Facilitator' approach, resulting in lesser emphasis on direct construction housing programmes.

Accordingly, the government launched a housing programme of 100,000 houses to both urban and rural homeless population.

In late 1970's, taking a giant step to relieve the housing problem, realising that the sharing of experience between countries would be mutually beneficial, the then Prime Minister of Sri Lanka appealed for the declaration of the International Year of Shelter for the Homeless, when he addressed the 35<sup>th</sup> session of the United Nations General Assembly in 1980. This proposal found instant global support and after considering by various committees of the United Nations Commission of Human Settlement (Habitat) the 37<sup>th</sup> session conducted in 1982 unanimously approved the declaration of 1987 as United Nations Year of Shelter for the Homeless.

After completion of 100,000 housing programme, Million Houses programme was implemented during 1984 – 1988 and revised as the 1.5 Million Houses Pro-

gramme and implemented during 1989 – 1993. The concept of ‘People Participation in the Housing and Community Development Programme in Slums and Shanties’ was the main theme of this project. The state involvement of the above programme was mainly giving small housing loans as incentives. In addition, security of tenure ship of lands given by the state, to encourage families to invest their own resources in housing. In this respect, people’s participation was enhanced by;

- 1 Reviving age-old methods of building.  
Low cost housing methods and technologies already used in the country were revived and constantly employed and perfected.
- 2 Rehabilitation of crafts  
Traditional skills were revived and rehabilitated and raw material sources located and developed to support the programme.
- 3 Training masons and carpenters  
Programmes were launched to train country’s youth in masonry, carpentry, electrical wiring and bar bending. All these schemes envisaged training of some 45,000 persons to meet the demands of the construction programme.
- 4 ‘Gramodaya Mandala’ Fund (A rural development fund)  
A fund to furnish financial support was set up with the Prime Minister as the chairman of the Board of Governors to channel funds received from government, NGOs, etc. This fund assisted rural electrification schemes, construction of roads and bridges and provides common amenities and services.
- 5 Exploiting the resourcefulness and ingenuity.  
Low cost building materials and techniques constantly being researched and the resourcefulness and ingenuity of rural exploited.

Some urban areas were declared as compulsory housing development areas and landowners were forced indirectly to reconstruct their single storied houses to three storied apartments by using government subsidies. (This has become an income generation activity for the landowners)

In comparison to the 100,000 houses programme implemented during 1978 – 1982, where the investment was extremely high with contractors building houses for the government, the 1.5 million housing programme which relied on beneficiary participation enabled the state to cater to much more number of families with less investment.

In 1994, with the change of the government, a policy change has occurred in the urban housing sector. Realizing the need for high density housing in the urban areas with increasing land scarcity the government gave up the assistant given to the slum and shanty upgrade and initiated a new programme to relocate them in flats built up by the government. The informal and under privileged housing sector of the city of Colombo is about 50% of the total resident population of the Colombo Municipal Council limits consuming 11% of the land area. The government had realized that the most of this informal sector occupied areas are very valuable and could be used for commercial developments. Hence as a policy, the government has decided to acquire these lands from the occupants and to find alternative locations for them. In this respect, the aim of the government is to sell the acquired land to prospective private sector investors to develop and to construct new multi storied flats by investing the income generated, in reasonably accessible locations.

Five governmental agencies formed an organization named REEL (Real Estate Exchange Private Limited) to implement this project. The governmental agencies are,

- 1 Sustainable Township Programme (STP)
- 2 National Housing Development Authority (NHDA)
- 3 Colombo Municipal Council (CMC)
- 4 Sri Lanka Land Reclamation and Development Company (SLRDC)
- 5 Urban Development Authority (UDA)

For this purpose, REEL has identified land in close proximity to the city of Colombo with a lesser commercial value. The total area is about 100 acres (40.5 ha). The total number of houses expected to be build is 17,145. In addition, this scheme will include facilities such as shopping, recreation, etc.

This project will be self a financing project and government is to fund only the infrastructure development. In this project, there will be several types of apartment sizes varying from single bedroomed to three bedroomed. Each displaced family is

not essentially expected to move to these apartments. The REEL will issue a Certificate with a value of minimum Rs. 800,000.00 (US\$ 11,000.00) to each family. These certificates can be only used to occupy an apartment of in this new development, to construct, or to purchase a new house from another location.

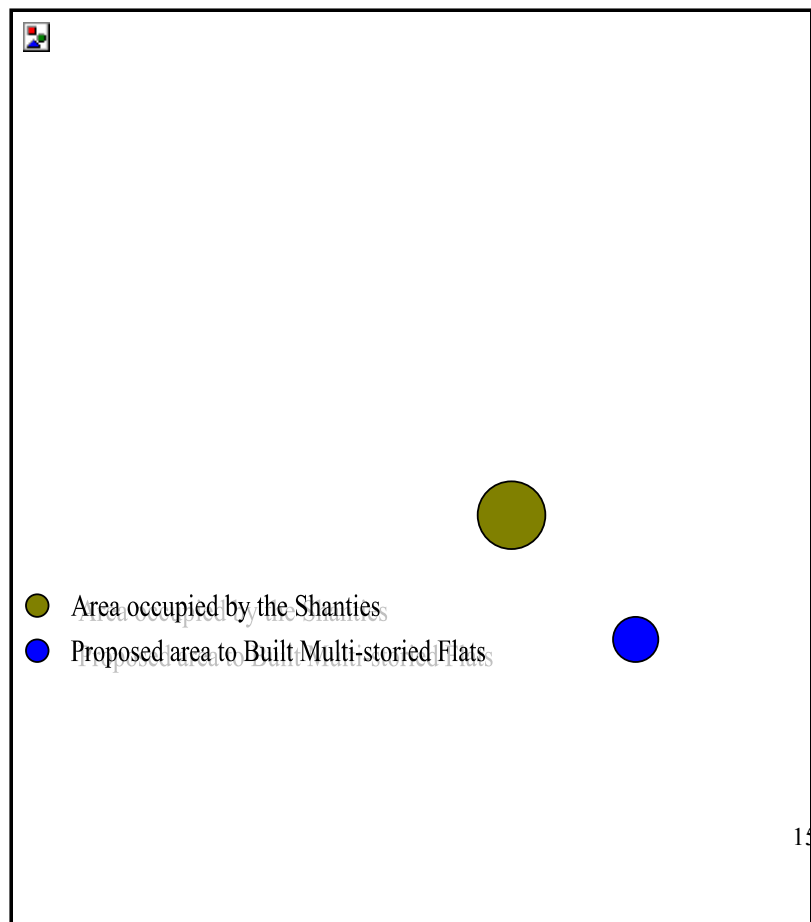
## Physical Implementation at Site

All the above previously mentioned government organizations have their own technical staff such as architects, designers, engineers, planners and technical officers. Hence, private sector designer participation is low in public sector housing, especially in low-income housing development. In construction, the involvement of private sector (developers and contractors) is more than the direct labour construction by the government organizations. After completion of master plans, detailed drawings, specifications and bills of quantities, the general procedure of construction is by open tender to capable contractors. After receiving tenders, the related organization appoints an evaluation board to evaluate the tenders and award the contract to the selected contractor.

## Urban Settlements in Colombo

In the conventional terminology, these settlements were classified as low-income settlements taking into account poor level of income of their inhabitants. However, a considerable percentage of occupants in these settlements are not remarkably poor and they earn substantial income through informal ways. Lack of management skills, poor attitudes towards savings, planning for future and behavioural patterns often contribute towards poverty. Therefore, the crucial factor that separates their settlements from other urban settlements is the poor level of infrastructure facilities.

The origin of most of these families is rural and they migrated to these urban areas for better income opportunities. Some of these families are the second or third generation of city dwellers. Due to lack of essential facilities such as education and exposure, the present occupants are still in their original position.



Urban housing settlements can be classified in to several types considering the following factors.

- 1 Location identity – Urban, Sub-urban.
- 2 Income level of inhabitants.
- 3 Available infrastructure.
- 4 Type of buildings and arrangement of cluster formation.
- 5 Tenure ship.
- 6 Age of the settlement.

The identified settlements are as follows.

### **Slums**

Slums are a condition of living. Decent houses have deteriorated into slums because of poor management of the buildings and services, and overcrowding. Most of these types of settlements are found in the inner-city areas of the city. Old single storied apartments attached to each other and abandoned mansions of an earlier elite are now occupied by several families and due to overcrowding and lack of sufficient services, these have deteriorated into slum conditions.

Slums provide shelter for about 38% of unsustainable households in Colombo. The total number of slums in Colombo Municipal Council area is 1071. From this 544 are vested with the Commissioner of Housing under the Ceiling of Housing Property Law of 1973. The total extent of slum settlements in Colombo is 315 acres or 128 ha. Over 55% of the area under slums is vested with the Commissioner of Housing. The amount of private land that has gone to slums is also considerable. Such private sector land represents 35% of the total land under this category. The next largest owner of the lands under slums in the city is CMC (25%).

### **Shanty Settlements**

Shanties are temporary structures made out of materials such as cadjan, planks and old GI sheets. Some are squatter settlements on private, government or municipal lands constructed with or without permission of the owners. Most of the shanty settlements are located on marginal lands such as canal reservations, railway reservations or marshy lands. There are also shanty settlements created by the government as temporary transit camps for flood refugees and families relocated from crown land utilized for development activities. (Fig. 1)

There are 13,313 shanties in 183 settlements in CMC area. 24% are on private lands while 16, 15 and 14% are on CMC, NHDA and CGR (Ceylon Government Railway) lands respectively.



**Fig. 1 Informal Settlements in Colombo**

### **Old Low Income Flats**

These are high density housing walk-up apartments. The range of floors is varied from 2 to 9. However, the very common types are two and four floors. Most of the units are given amenities individually and others share amenities. The floor areas of housing units vary from 350 – 600 Sq.ft (35 – 60 Sq.m). The planning authorities authorize these houses.

In CMC area, there are 8,950 houses in 103 units of old low-income flats. Most of them belong to NHDA (56%) while 27% to CMC. Some private flats are also found. The total area of low-income flats in CMC area is 51 ha. Almost all the flats belong to government sector are given on rental basis.

### **Relocated Houses**

Either 'site and services' or regularized and upgraded shanty/squatter settlements or directly constructed housing concentrations are generally identified as relocated housing. Houses in site and service or regularized schemes have been constructed by the occupants on self-help basis while the other housing estates have been directly constructed by public sector agencies and handed over to the relocated families.

These schemes constructed on the micro-settlement development plans with the legal planning approval. 14,814 under-served houses are living in 97 relocated settlements in CMC area. About 89% of them are belongs to NHDA. The total extent of these settlements is about 96 ha.

### **Old Deteriorated Quarters**

These are permanent structures constructed many decades ago by private or public agencies to house their employees. Some quarters have individual amenities while others enjoy common amenities.

## **Analysis of State Involvement in Settlements in Colombo**

Since independence in 1948, the government of Sri Lanka has implemented many policies related to housing. Many housing schemes were constructed, both urban and rural. Those housing schemes mainly catered for low income and middle-income groups. The main actors involved in these projects were the National Housing Department, National Housing Development Authority, Municipal Councils (Especially Colombo Municipal Council, because urban homeless problem is mainly effect to the CMC area.), Land Reclamation and Development Corporation and Urban Development Authority. As mentioned in previous chapters, subsequently a newly formed semi-government company, Real Estate Exchange Private Limited (REEL) has been involved in the urban low-income housing process. In public

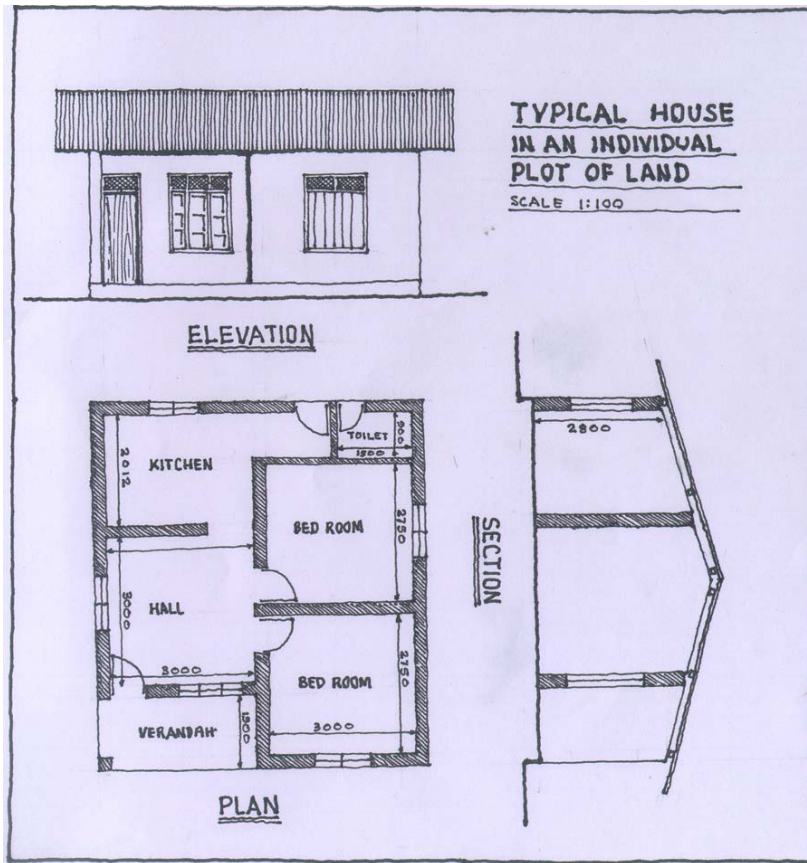
sector housing, participation of private sector architects and designers is occasional and limited only for special projects.

In construction, most of the time private sector contractors and builders participate while the relevant government organization administers the contract. In post occupancy, the main participants are the residents, local authority and the relevant government organizations in maintaining.

Among the completed housing projects it was observed that the rural housing schemes were more functionally and socio-culturally successful than the urban schemes. According to the Sri Lankan evolution of the non-designer house form, it is evident that the rural housing schemes were more close to the normal way of life of Sri Lanka, than the urban housing schemes. As a tropical climatic country, most of the day-to-day activities happen outside the house than inside. At the same time, privacy, identity and independency are also some of the main factors that govern the house form.

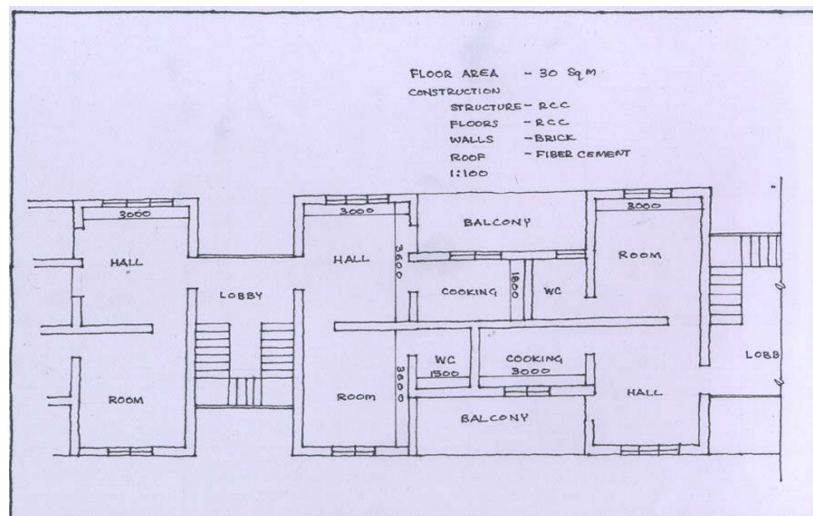
The above mentioned factors were satisfied mainly in rural housing schemes than the urban housing schemes. The rural housing schemes has enough outdoor areas for day-to-day activities. At the same time, privacy and independency were also maintained, as most of the houses were located in individual plots. As these were individual houses, the owners had the flexibility to change the appearance of the house to maintain their identity. (Plan 1.)

Although urban low-income housing have upgraded the living conditions of urban low income population, some of those schemes were not very successful as the rural housing schemes. The governments' strategy was to construct maximum number of apartments with available resources. In some middle income housing, as in Plan 2, though the apartments are small in size, privacy and independency were maintained.



Plan 1. Rural housing development





Plan 2. A better urban housing design

As the urban housing problem is becoming more and more severe, it is vital to analyse the negative aspects more than the positive aspects as it will be much useful in future housing projects.

In analysing the urban housing settlements, the following aspects can be identified as negative aspects.

- 1 Location
- 2 Infrastructure facilities
- 3 Maintenance
- 4 Personal development
- 5 Design
- 6 Tendering
- 7 Post occupancy evaluation

### Locations

As described in previous chapters, low-income settlements are occupational oriented. The primary governing factor for a specific location is accessibility to the work places. Most of the occupations are informal and temporary. Finding a work for a day is dependent on the arrival time of the work places. (Colombo port is a major place for porters and only persons arrive early in the morning get work) In addition, there are lot of supporting activities such as selling of food for these workers.

In analysing locations, it can be observed that most of such resettlements are located away from the places of day-to-day activities. Public transport facilities to the work places have not developed parallel to the need. As a result, the occupants tend to move back to their original places.

### Infrastructure Facilities

Due to financial constraints sometimes these housing schemes start to function with minimum infrastructure facilities. Some of the facilities have to be shared until developed by the relevant authorities. However, most of the time, it is evident that the priority goes to the provision of infrastructure on new projects rather than developing an already functioning housing scheme.

In addition, the ways of life of the occupants should be changed to upgrade the living standards. This needs common education and training programmes. However, this has never happened. As a result, scattering of garbage all over the neighbourhood can be seen. In such situations, with the available facilities and resources, the local authorities find it difficult to dispose garbage on time. This leads to health hazards, especially to the younger generation. (Fig.2)

Even though, upgrading the 'ways of life' of the occupants is a part of the government policy, due to lack of infrastructure development, it has not upgraded as expected.

### **Maintenance**

Normally maintenance of a housing scheme is a responsibility of the owner of the scheme, such as NHDA and CMC. However, this has happened very rarely after occupying a scheme, except for an essential maintenance work, which leads to personal damages. Colour washing and maintenance of common areas have least priority.

The main reason for this is the lack of resources, both labour and material and lesser involvement of residents. In addition, maintenance of these schemes have neglected due to the priorities and targets given by the government to such authorities.



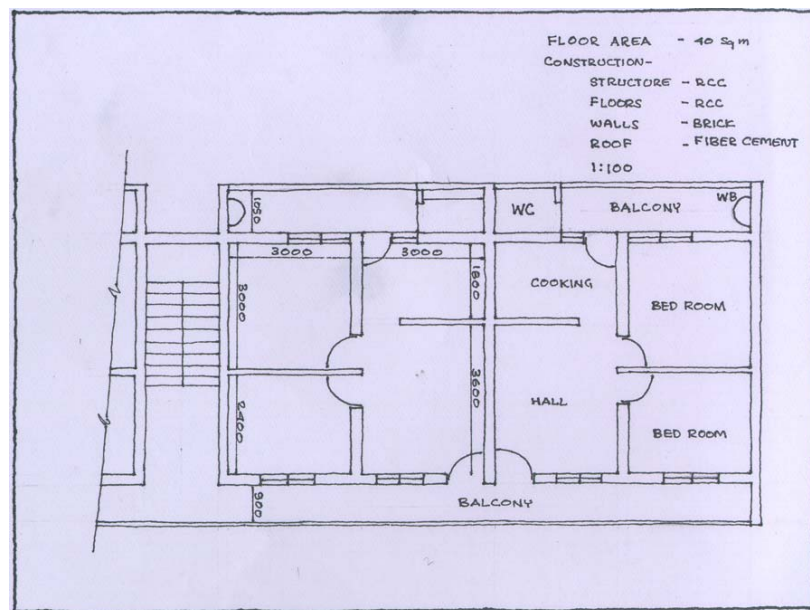
*Fig. 2 Unplanned garbage management*

### **Personal Development**

Most of the time, the houses/apartments are much larger and better than the original informal shelters of the occupants. Because of that, the occupants require more knowledge and money for the proper maintenance of the apartments and upgrade their ways of living. Even though the occupants reserved new houses, their income and level of education remained unchanged due to lack of better job opportunities and lack of personal development programmes. As a result, some of the occupants tend to rent out or sell their apartments and move to alternative places that they could afford.

### **Design**

The main governing factor for the design of low-income apartments is economy. Most of the buildings were designed to allocate maximum number of apartments. Lack of privacy and independency, lack of utility spaces for facilities such as washing and drying of clothes, lack of areas for recreation and leisure and insufficient areas allocated for functions such as cooking are some of the design failures.



Plan 3

The Plan 3 shows a typical plan of such apartments. Main entrances to apartments are from a common balcony of about 300mm in width. In addition some of windows are also open to this balcony. Due to lack of utility spaces, drying cloths can be seen hanging from everywhere of the building. (Fig 3.) It can be seen that the private balconies have enclosed to gain more space to kitchen area. Most of the buildings are load-bearing structures. Hence, there is no flexibility in changing internal spaces. In addition, lack of consideration of weather conditions, the buildings tend to deteriorate by developing algae on exterior wall.

### Tendering

As mentioned earlier, the private contractors carry out the construction of most of these projects. The procurement method is globally accepted. However, in implementing this method in local context, there are unproductive practices, which result in the end product being below the acceptable standards. Such practices are as follows.

- 1 Incomplete tender documents
- 2 Long processing time in tender evaluation
- 3 Unrealistic tender figures



Fig. 3

### **Incomplete Tender Documents**

Other than the direct objectives of these projects, sometimes there are some secondary objectives mainly based on politics. As a result, the designers and other technical staff get unrealistic targets to complete the designs and other documents. This results in extra work in construction and variations in the tender value and sometimes the budgetary provisions are insufficient to carry out the additional work.

### **Long Processing Time in Tender Evaluation**

Reasons for the delays in tender evaluations are as follows.

- 1 Lack of knowledge of the evaluation board. In most of government departments, the administrative sections rather than the technical sections nominate evaluation boards.
- 2 Auditing: After evaluation, the documents should go through both internal audit and government audit departments prior to the approval.
- 3 Approvals: After receiving the documents from the audit, it should channel through several other departments and committees to the approval.
- 4 Agreements and other legal documents: After approval is granted, to award the contract to the selected contractor, another department does preparation of agreements and other legal documents. Before preparation of these documents, the legal department should go through all the documents from the inception of the project.

### **Unrealistic Tender Figures**

As the tender evaluation boards are comprised of non-technical staff, they give priority to the final tender value rather than the other technical aspects. Because of that, most of the contractors try to keep their final tender value at a minimum and sometimes unrealistic value.

Because of the above-mentioned factors, the contractors find it difficult to complete the projects within the budget, the specified time period and required quality. This leads to lots of maintenance problems in post occupancy.

### **Post-occupation Evaluation**

Post occupation evaluations are carried out occasionally after completion of a project. As a result, failures of previous projects will continue in future projects without identifying them.

## **Conclusion and Recommendations**

In analysing the urban low cost housing in Sri Lanka, the following were observed as negative outcome.

- 1 Unsuitable locations.
- 2 Inadequate infrastructure facilities.
- 3 Inappropriate maintenance.
- 4 Lack of personal development.
- 5 Design failures.
- 6 Bureaucratic methods of tendering.
- 7 Insufficient post occupancy evaluation.

### **Unsuitable Locations**

In finding a location to resettle an urban informal settlement, it is very important, to consider easy accessibility to work places as their income and occupations depend on it. However, it is not always possible to find adjacent locations to work places, as most of the areas are commercially valuable and already occupied. Hence improving public transport facilities can develop the accessibility of these areas. In a master plan, the planning authorities should identify fairly large areas suitable for housing in outskirts of the city where several settlements can be moved. New continuous transport systems, both private and public, should be introduced to these areas. Instead, of conventional ticketing method, new systems such as passes for a period

where a person can travel along a specific route according to his wishes can be introduced.

### **Inadequate Infrastructure Facilities**

If living standards of a community cannot be improved by a resettlement, it cannot be identified as a successful project. The project should be planned from the inception considering major factors such as finances, available infrastructure facilities, income level of the occupants, etc. To upgrade living standards, essential infrastructure facilities should be provided before occupation. Therefore, to finalize the magnitude of the development, policy makers and designers should study about the available infrastructure facilities and possible avenues of development. In addition, the occupants should be educated to adapt to new upgraded living standards. The respective local authority can handle this by conducting frequent workshops especially for female participation.

### **Inappropriate Maintenance**

Maintenance of a housing scheme should be managed and administered by the owner agency. However, considering high maintenance costs and available labour and material, the government should encourage people's participation in maintenance. For this purpose, a Board of Maintenance (BOM) (members to be appointed within that community) can be established. Maintenance work such as colour washing, minor repair work, cleaning and maintaining of open places, etc., should be carried out under the supervision of this board. Each family to BOM account should credit a fixed monthly contribution and this money can be utilized to the regular maintenance work. The BOM should submit their financial statements to the respective government organization. Major maintenance work such as major repairs, road development and infrastructure development work, should be carried by the owner organization.

### **Lack of Personal Development**

Personal development of a family is mainly dependent on income levels and employment security. The government, as a policy, should take steps to upgrade conditions of occupations to give some permanent status. In addition, the government should educate and encourage the occupants to save, which later they can utilise for investments.

### **Design Failures**

Most of the low income housing schemes has been designed giving priority to financial constraints. These resettlements are located in various places according to the land availability. In most instances, aspects such as user participation on design stage, local weather conditions, orientation, privacy, identity, flexibility and aesthetic, have neglected. Monotony of designs can be observed in most of the housing schemes as the same designers designed them. Private sector designer participation is minimal.

To improve housing designs, the government should encourage private sector designer participation. Holding open design competition with the collaboration of relevant professional bodies can do this. Competitions may also provide better design solutions. In addition, user participation should be included from the inception, throughout process, as a policy.

### **Bureaucratic Methods of Tendering**

The main reason, for the problems arising from the tendering procedure, is involvement of too many non-related departments. Hence, most of the problems mentioned earlier can be overcome by reducing participation of non-related departments in construction process. In addition, the government should take responsibility to reduce political interference throughout the project. (This can be incorporated as a part of the housing policy.)

### **Insufficient Post-occupancy Evaluation**

Post-occupancy evaluation is a productive method to overcome practical problems in future designs, even though currently it is not a common practice in Sri Lanka. Post-occupancy Evaluation can easily identify most of the actual design and functional problems than analysing a new design from the inception. Hence, Post-

occupancy Evaluation should be included in the public housing programmes. This can be implemented by the owner organization or through NGOs. In addition, such research projects can be included in relevant higher educational institutions such as Universities and the research papers can be publish for the relevant designers.

## Proposals in Implementation of Present Private Sector Participation Housing Policy

### Objectives

- 1 Provide habitable shelters to informal settlers in urban areas.
- 2 Improving income level of the occupants by providing occupations that are more reliable and work places.
- 3 Improving infrastructure facilities.
- 4 Improving public transport.

### Activities

#### 1. Providing Habitable Shelters

- 1 Carrying out census (number of families, occupations, etc.) of informal sector in urban areas by the relevant Local Authority.
- 2 Inviting private sector investors to participate in the entire process.
- 3 Identify areas reasonably accessible for day-to-day activities of the identified informal sector.
- 4 Awarding Turn Key contracts to the private sector investors to construct multi-storied apartments to a given standard by the Local Authority. Until completion of the project, the Local Authority should have access to administer the project to inspect the quality of work.
- 5 Establish a Board of Management to carryout maintenance work after completion. (BOM should be responsible to the LA)
- 6 Handing out the apartments to the families identified, for a monthly rental. The rental should be calculated considering.

- Present market value (%) - LA
- Cost for infrastructure facilities (%) - BOM
- Cost for maintenance (%) - BOM

The rent should be paid to the BOM and there should be three separate accounts to above-mentioned items.

- 7 Acquire lands of presently occupied by the informal sector and handover to the same private sector investor to a certain period of time to re develop commercially and to leas the building to reimburse their construction cost of apartments, construction cost of commercial development and to make a profit. At the end of the period, the investor should handover the land to the LA.

#### 2. Improving of Income Levels.

Inside the commercial development there should be a separate area to carryout day-to-day occupations of the apartment holders in a more formal manner to built up their identities and to improve their income levels.

#### 3. Infrastructure Facilities.

The LA should provide adequate infrastructure facilities such as water, electricity, sewer and garbage disposal. The LA to be recovering the expenses from the percentage of the rent allocated for the purpose.

#### 4. Transport Development

LA should arrange, with collaboration of public transport sector and private sector, to establish a continuous public transport system from apartments to the commercial development areas.