

# PROVIDING AFFORDABLE HOUSING FOR LOW-INCOME GROUPS

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## ABSTRACT

*The rapid urban population growth led to an increase in demand of housing as one of the basic needs. Housing demand refers to the total need for houses regardless of economic possibilities to afford housing.*

*The number of housing constructed by formal sector could not contribute substantially to alleviate the housing shortage, especially housing for low-income groups. Moreover, the price of formal housing is too expensive for the target groups.*

*This paper try to describe some cost reduction approaches in order to provide better access for low-income groups to housing in the formal sector.*

**Key Words:** *affordable housing, low-income groups.*

## INTRODUCTION

Demographic pressures will soon affect housings and human settlement, infrastructure and means will be overburdened and lead to more deteriorating condition.

From the survey of live expenditures in Indonesian urban, known that 60% of the urban population classified as the low-income group with low affordability. In the meantime, a feature of housing in Indonesia in the last decade was concerning housing price. Housing price increased 3.5 times. On the other hand income level only rose 2.5 times. Decreasing the ability of people to buy housing affected the quality of life, such as: garden to be narrower and most houses in bad quality.

In a well functioning housing market, housing expenditure should not take an undue portion of household income and house values should be fairly stable over time. If these conditions are not hold, it is an indication of an underlying problem, which is restricting

affordability or causing instability in the supply of housing (Housing Indicators,1999)

The concept of affordability itself is complex, most often it refers to the proportion of income that a household must or is willing to spend on housing.

## THE PROBLEMS

Basically, there are two systems of housing provision, those are:

1. Through *formal housing sector*, which is in this case is provided by Perumnas as a public developer and by private developers.
2. Through *informal housing sector*, which is in this case provided by the community itself. The community has a role as provider, include as planner, builder, even as people who mobilised fund.

Formal housing could only satisfy a small part of total housing demand and still remaining a large part of population who require housing, particularly low-income groups. This

condition is caused by many reasons. Firstly, the biggest part of consumers is require and search the cheap housing. On the other hand, developers especially private developers that was followed closely by the profit oriented concept went to project which had the highest profit margin, such as housing for middle and high-income people.

Secondly, financial constraints has been faced by developers such as high production cost coupled with difficulties to get construction loan with low interest rate from the bank makes the operation of housing supply at the affordable price become difficult, especially housing provision for low-income groups.

Thirdly, the Local Government who has a role in urban housing development process as enabler is facing the constraints affecting the housing supply. Besides lack of institutional capacity to provide basic services, Local Government is also in conflicting priorities on urban development, particularly relate to land supply in which they are incapable of supplying sufficient land for provision of urban low-income housing purpose.

In the case of lack of institutional capacity of local government can be identified through delaying public agency in expand service provision to the public, because lack of the quality of its staff, limitation of equipment, lack of management, planning, decision-making and so on, which leads to delaying and increasing of project cost, for example in issuing building permit, land acquisition process, apply the new title of land, and many others.

Besides of three reasons are as mentioned above, since the middle of 1997 Indonesia faced an economic crisis, which negatively affected all economic activities. Government took tight money policy to overcome inflation, but this policy has decreased economic activities, including the housing sector. Many housing developers were bankrupt, because they had difficulties to get financial support from banks. To tackle these problems, they increase houses selling price as a solution to continue housing provision programs. Certainly, this bad situation makes formal housing more inaccessible and unaffordable, particularly for low-income groups.

At the moment, many low-income people who can not afford to buy formal housing living in cheap rental housing, rental room or build house by their own capacity, using their own resources and finance by interest free loans from friends or relatives. Even, many of them stay in squatter settlements with poor living conditions. Actually, this condition could not be ignored. It needs a great responsibility from all stakeholders who are involved in urban housing sector to find the optimal solution. For that reason, every possibility solution must be explored to provide affordable housing especially for low-income groups, so, it would be able to improve access for low-income groups to decent housing.

## **COST REDUCTION APPROACHES OF FORMAL HOUSING SECTOR**

The scope for cost reduction method of housing construction is obviously broad, and this section addresses only some of them.

### **1. Improving Project Management**

Project management is a discipline to plan, apply, upgrade, co-ordinate and monitor the performance capacity of a project, by rationalising the sequence of activities using the optimal benefit of cost as generated by the appropriate co-ordination and use of materials, equipment and manpower resources in a specified time and condition of the project objectives (Kawuma. R., 1999).

The poor project management will cause the failure in the project completion in time and it will increase the cost of project.

According Fayol (IHS-UHM Reader: Organizational Management, 2000) there are 5 principles to perform better management, upon which basis better organisation methods can be developed, as follows:

1. Planning
2. Mobilising
3. Instructing or directing
4. Co-ordination
5. Control or monitoring

Moreover, Atman. R. (IHS-UHM Reader: Organizational Management, 2000) said that there should be a minimal act of management conditions, which, for the sake of clarity, are put as follows:

1. Clear written statements on the job-descriptions and responsibilities:
2. Clear guidelines and standards on how to operate:
3. Clear working procedures in the interactions between the various functions:
4. Clear rules and regulations (e.g. By laws of the organisations) for e.g. Secondary rights and duties of the employees;
5. Clear filing and administration system.

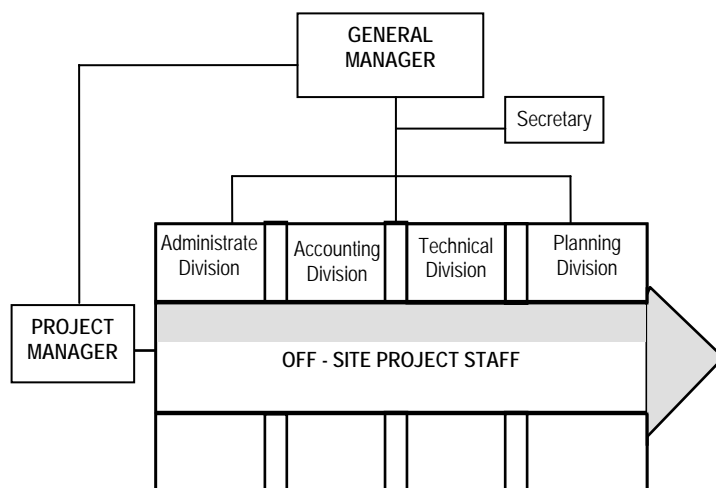
**1.1. Improving Management of Project Organisation**

Management of organisation is referred as management of the organisational behaviour for the purpose of organisational or production improvement (IHS-UHM Reader: Organizational Management, 2000).

There are many stakeholders involved in a project management system and the basic characteristic of this system is its unifying function among each stakeholder. There is should be a balance between the co-ordinating function on one hand and the performing function on the other.

The poor organisation will cause an increase of the cost of project, because, it will rise the problems that cause delay or failure in the completion of project in time.

Based on theory of organisational management concerning 5 principles to perform better management as mentioned on the previous section, all function of the worker and specialists should be clear and well organised. Therefore, the new structure of project organisation is required in order to optimising project monitoring and control. *Figure 1* shows intersectoral relationship between office organisation and project organisation.



**Figure 1** *Intersectoral between Office Organisation and Project Organisation*

*Figure 1* shows the setting of off-site project staff from each functional division (vertical columns) to be involved in on-site project (horizontal bars). The purpose is to assist in-side consultancy, monitoring and controlling the project on-site. Besides that, it is also necessary to generate ideas as basis for a direct problem solution.

Plea for organisational efficiency by means of introducing an appropriate, an adequate project organisation for the housing delivery. The efficiency would lead to better management and monitoring of housing projects with the overall objective to lower the production cost of housing.

**1.2. Improving Project Planning in the Implementation Stage**

Project planning in the implementation stages is viewed as a significant factor that contributes to the cost price of formal housing. It is a technical and operational plan of the project in term of scheduling the time, calculating material, labour, and equipment required, and also calculating the cost.

- a. By scheduling the time, they have a guide for time allocation in each activity. There will estimation when the project start and when the project finish. However, to get the exact of allocation time for each activity, the estimator should have experience. Base on

their experience, they can arrange the project activities in continuity to achieve better project planning and monitoring.

- b. By calculating material needed, there will no shortage of building material on site. Building material will available in the right amount and in the right time. So that, the construction process can be avoided from delay that caused by lack of material and optimise own production.
- c. By calculating the total number of labour needed, the project can keep efficiency and productivity of manpower on site, because, more labours are not guarantee the optimal output of production.
- d. By calculating the cost required, makes the developers confident that there are sufficient fund to cover the expenses of each project activity.

Therefore, several advantages can be drawn by creating a better construction project planning are as follows:

- a. The project will be avoided from delay in supply of material that cause lack of material on site. Material shortage will lead to extra money for developer, because labour will not productive on that moment. Moreover, better planning of the usage of material can help the developer from material wasting. They can make a modular system of material, so that, it will increase efficiency of using material, for example: by cutting material carefully, so its remain can be used for other parts of construction.
- b. The project will be avoided from inefficiency and unproductively of labour on site Because of the capacity of labour have been calculated in sufficient proportion to give the optimal output. Therefore, it helps developers from loss money caused by imbalance between the number of activities and the capacity of labour (include the number of labour and their skill).
- c. The project can be covered by sufficient fund, because of all the project expenses have been calculated in appropriate ways, therefore, the project will be avoided from the risk of lack of cash.

## **2. Giving Opportunity to the Target Group to Participate in the Development Process**

By giving opportunity to the target group to actively participate in development process, this development is assumed to take place more effectively and efficiently.

Kristiani, A. T., Steinberg, F., (1990) have pointed out that by involvement of the community into the development process will contribute to achieving the best use of limited financial resources. They also noted several important items concerning “effectively and efficiency” reasons for “real” community participation as follows:

- a. Community participation creates a possibility for decisions based on people’s needs, priorities and affordability; this may result in better and more realistic plans, programmes, and policies. Moreover, it may increase the chance that people are willing and able to contribute their resources such as money and labour towards implementation and operation and maintenance;
- b. Community participation ensures that people’s knowledge, creativity and skills (all valuable resources) are recognised and used; again, this may result in better and more realistic designs, plans, programmes, policies;
- c. Community participation ensures a greater acceptance and appreciation of whatever is created (infrastructure, houses, community buildings); this may result in better care, better maintenance and even pride;
- d. Community participation builds up the self-enabling and co-operative spirit of people; it will increase the people’s self-reliance, which in turn will decrease the need for government resource inputs.

Involve the community in the development process means there is a part of the role and responsibilities of stakeholders of the housing delivery program that are transferred to the community. The mobilisation of the role and responsibilities of stakeholders can be determined through identifying the relationship between project stage and project function in

order to provide the tool for management of change of the process. So, it will be clear who are the actors, what are their responsibilities and at what stage of the project they take place. Based on that understanding, we will know the possibility concerning the part of community's function. However, in order to avoid project failure, the involvement of the community in the project requires some criteria such as a strong commitment, time allocation, ability to offer resources, etc.

In general, the low-income community (as the target group) is recognised as lack of skill and knowledge. They need an assistance to be able to involve in the development process. In this case, the role of NGO as an intermediary between community and formal sector become very important. Through NGO community can channelled their needs, preferences, and aspiration. For those purposes, there should be an opportunity for NGO to take place in the project stage.

In the implementation stage, community can participate and survey on the labour type input is a prerequisite. The involvement of the community in development process does not mean they perform fully construction to finish the project. Community will perform with the aid of skilled labour or foremen. Although, it might be slower down the process, it will reduce the cost of production. Training is therefore necessary to benefit the community.

e. Applying the Concept of Serial Housing Production

According to the theory of Real Estate and Project Management (Atman: 2000) it was noted that management of serial projects is defined as the art to time the activity sequence in such a way that each operation is able to be performed with the same time, so as to achieve a continuous total performance.

This method is very suitable to be applied to an-masse housing project in which most of the units are identical. So that, through applying serial production each activity will be performed continuously without any interruption and most of the operation will be performed concurrently with the other ones (parallel effect).

Applying the serial production in low-income housing project can reduce the cost of construction, because it will avoid waste of time, material, labour, and equipment.

f. Encouraging the Research to Find the New Technologies toward Cost Effective Housing Delivery

Housing stress and inadequacy is mainly felt by the weaker and low-income section of the society, particularly with the continuous rise of construction costs. Although there have been attempts at developing appropriate and cost-effective technologies, they have remained at the laboratory level. Of course, it needs the awareness of architect and engineers according this alternative to provide other options, which can lead to the cost-effective solutions. What is needed is to give a specific shift in the selection and application of building materials and technologies leading to cost effectiveness.

g. Increasing Adequate Supply of Basic Infrastructure and Services

With regard to the result of interview with some representatives of the developer, They revealed that they need some government intervention in order to support their involvement in low-income housing production. One of them is a support in the provision of infrastructure, at least support to get access to off-site infrastructure, such as road, drainage and water supply provision.

It is commonly known, that the government alone is not able to cope with the increasing housing shortage, and the private developers are already responding to the demand of housing sector for the middle and high incomes, as well as for low-income groups. Therefore, it is important to encourage their effort by creating suitable atmosphere to enable the involvement of private developers. Without positive government intervention, private developers will produce housing, which is unaffordable and inaccessible especially for low-income groups.

#### h. Improving the Land Registration System

By improving land registration system, Indirectly, it will reduce the cost and time consuming in the land acquisition process conducted by developers.

There are at least three activities to promote better land registration, especially to raise the certificate possession, those are:

1. Through simplifying procedure to speed up the process of land registration or land titling
  2. Through improving the implementation National Operation Project or “*Prona*”
  3. Through improving institutional capacity of Local Land Agency and other institution relate to problem
- i. Establishing “One Stop Service” to Accelerate the Process of Development Permission

In order to speed up the process of development permission, the assessment of existing procedure and standard should be undertaken. Its emphasise can be put on the time and cost aspects. If the time required for the process can be shortened the cost for extra expenses can be reduced.

For that purpose, the establishment of “*one stop service*” can be taken into consideration. The idea of the establishment of one stop service has been undertaken as immediate objective of National Policy and Strategy on Housing and Human Settlement Indonesia period 2000 - 2020, but it is not applied yet in some areas in Indonesia.

#### j. Improving Institutional Capacity of Local Government relate to Problem

Administration effectiveness in local government very influenced by personnel capabilities. In order to cope with high demand on urban housing and to support the involvement of private sector, local government should improve their capacity in service delivery, for example they should accelerate the land acquisition and titling process.

In case of the long process in land acquisition and land titling is also caused by the land is unregistered yet. It will not happen, if

there is a good local land registration and administration. Because, bureaucracy at the land agency administration that takes quiet a long time and unclear in administration cost can become the constraints of landowner to register their land. Those weaknesses can be coped with expanding information to the community about the procedure, the time and the cost of land registration. The first step should be taken is by simplifying procedure, lowering bureaucracy, and improving transparency. Besides that, in order to provide the service effectively, local government needs to strengthening their organisation capacity through skills audits, designing of training curricula, implementation of management systems and delivery of training programmes. These actions will provide employees with the requisite skills to manage, operate and maintain to its maximum efficiency and effectiveness.

Moreover, to encounter a rapid change in urban development, local government needs undertake approach from a holistic point of view, that is urban information systems as a system extracting information from different registers with a view to the solution of the problem hampering urban development. Some of the advantages rendered for the alleviating the financial and institutional capacity of local government are as follows<sup>1</sup>:

1. Land information system provides the necessary legal cadastre concerning the registration of title to the land;
2. Fiscal cadastre concerns also the inventory, which contain information from which the value of land can be assessed and determined.
3. Land information system provides efficient processing and timely analysis of socio-economic statistic and other data information, much reduces the time consuming process of data collecting;
4. Land information system provides high security from unauthorised person to access the data information to prepare valid

<sup>1</sup> Adopted from several literature: Daft, R.L. (1998); England, J.R. (1985); OECD (1993); UNCRD (1986).

development plan to serve as basis for public investment.

With this level information support, decision-makers that are in designing and in policy and program formulation positions without doubt will be handicapped in solving the problems.

### CONCLUSION

It should be realise that the description in this paper is not able to cover the problem with a complete answer. A part of them need further research.

However, *the previous description have pointed out that by reducing the cost price of formal housing will provide better access for low-income groups to formal housing.*

Several methods that can be used to reduce the cost price of formal housing are as follows:

- a. Improve project management  
 Improve project management by improving management of project organisation and particularly improving project planning at the implementation stage. The purpose is efficiency. The efficiency would lead to better management and monitoring of housing projects with the overall objective to lower the production cost of housing.
- b. Involve the target groups in the development process  
 Treat the target group as the potential resource at the supply side for the identification of the potential involvement into the various stages of the development project.
- c. Apply the concept of serial housing production  
 Applying the serial production in low-income housing project will reduce the cost of construction, because it will avoid waste of time, material, labour and equipment.
- d. Encourage the research to find the new technologies toward cost effective housing delivery

- e. Increase adequate supply of basic infrastructure and services
- f. Improve the land registration system to benefit of the low-income housing sector
- g. Establish "one stop service" to accelerate the process of development permission
- h. Improve institutional capacity of local government

Besides that, there are two important aspects that should be underlined, they are:

- a. The need to explore and enable communities to participate in the housing development

It should be aware that failure in the housing delivery system in which many of housing projects shown pitfalls at their objectives, for they proved to be too expensive for the target group is *mostly caused by there is no balance between top-down planning and bottom-up planning to reach their objective. They are usually put their own perception for their own interest.*

By accommodating top-down and bottom-up planning in an integrated way, housing project will achieve their objectives to ensure that community interest, support and participation are maintained in all phases of the project. This process is very important and it is organised to provide every opportunity to identify and solve problems, which could reasonably be anticipated, so that they could be sorted out successfully prior to the start of the construction process.

- b. Low-income housing should be put in the context of urban development

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