

# EVALUATING SITES AND SERVICES POLICY AS APPROACH TO AFFORD HOUSING FOR LOW- INCOME PEOPLE IN YEMEN: CASE STUDY

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## Abstract

Yemen is one of the third world countries, which suffers from rapidly increasing urbanization and this problem is getting more serious. Hence most of the people lack adequate shelter and services. The population of Yemen has been steadily increasing in the early seventies, due to the following reasons: natural population growth and the internal migration from countryside to the urban areas and also due to the economic, social, legislative and political reasons. All these have led to an imbalance between the increasing demand and the limited availability of the housing facilities in general and for low income groups in particular. This study aims to identify and analyses the policy of sites and services as project in Sana'a. It is a good example that represents the status of this type of policy (sites and services) in Sawad Saawan. This study also clarifies the suitability of the needs and ability of low-income groups to correct the directions of their attempts either by what has been implemented or the factors to be taken into account to succeed in the future. The first part of the study has employed a theoretical analytical approach to understand the directions, which make the suitable houses available to the low-income groups in Yemen; the second part has carried out field study in the target city Saawan as a project instance of the sites and services policy. The study has concluded that this project has faced

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many difficulties on its way of success due to the following reasons: (i) inability of target groups to have houses that match their financial ability and meet their basic living needs and (ii) the negative impact created by the actual implementation of the sites and services project due to the difference between the practical field and the theoretical idea. This study has suggested and recommended the means to enhance the development of the housing sector and housing policies in Yemen.

**Keyword: affordability; adequacy; site-services policy; Low income people.**

## **1. INTRODUCTION**

The united nation conferences of the human settlement since 1996 have consternated on finding adequate, affordable, and suitable housing for all. Most of the developing countries suffer from an acute housing problem, where the provided housing units do not satisfy the needs of the occupants, the cost, type or size of the housing unit were not suitable for the occupants [1]. The existence of this problem is due to the population growth, coupled with the internal migration of people from rural areas to urban areas. This leads to a great expansion of the cities, which in turn leads to housing problems. In fact in the cities already there exists a need for more residences, and the available houses were usually financially out of reach to the middle and lower class citizens [2].

Housing policies are different from one country to another depending on the political, economic and social circumstances. The overall objective of any housing policy is to "enable every household to have available an affordable dwelling of good quality, suited to its needs, in a good environment and as far as possible at the tenure of its choice". Housing policy alone does not have the capacity to influence sweeping changes. Nevertheless, how the policy is developed and enforced is just as important as the process of implementing it. The process for developing adequate housing policy is an indicative for meeting the challenges of increased affordable housing [3].

Over the past 40 years, governments all around the world have tried to address the problem of adequate, affordable and sustainable housing, but the progress is slow and the problem of "informal settlements" is still growing. For example, the rapid growth of Sana'a city in Yemen and its fringe areas

in the past few decades has created many problems for the city of which the shortages of housing and affordability are most pressing. Due to the fact that Sana'a public sector housing does not contribute even 10% of the nation's housing needs, the formal housing sector has not been able to offer affordable housing to low and moderate income households. Studies have revealed that the 60% of the low income groups were not able to afford formal housing in the city of Sana'a [4]. The most visible manifestations of the housing problems in Sana'a are the numerous unauthorized spontaneous settlements that have been scattered around Sana'a. A study, carried out by [5], has found that the informal settlements in Sana'a reached have 45 % of the formal housing in the city.

This study has dealt with one of the policy's, which was implemented in Sana'a to offer affordable shelters (sites and services) and adequate shelter for low-income groups. This policy was evaluated by Sawad Saawan project, to achieve good results and recommendations to avoid deficiencies in future projects for low-income groups. The site and services projects are as considered one of the solutions, which were undertaken by government to make the low cost shelters available to the low- income groups. This study aims to understand and rectify the sites and services of the project, by the erecting sample in Sawaan city, to study the positive and negative aspects and the prospect to reduce the demand of suitable housing for the low-income people. This study also clarifies the suitability of the needs and ability of low-income groups to correct the directions of their attempts either by what has been implemented or the factors to be taken into account to succeed in the future.

## **2. DEFINITION OF LOW-INCOME PEOPLE**

There is no accurate definition for the term low-income people, so many researchers have studied and defined low-income people according to their point of view and to the background of the theoretical study of their research, [6], [7]. Generally the low-income people can be defined as a group that lacks enough income even to meet their basic living requirements and does not have enough savings and ability to own a suitable shelter. The table 1.1 illustrates the average individual income in Yemen:

**Table (1): low- income group classification (poor people) in Yemen**

<b>Level</b>	<b>Average annual per capita income</b>	<b>Population %</b>	<b>The year</b>
<b>Moderate poors</b>	<b>2470</b>	<b>41.8%</b>	<b>2000</b>
<b>Medium level poors</b>	<b>870</b>	<b>%28</b>	<b>2008</b>
<b>Very poor group</b>	<b>718</b>	<b>17%</b>	<b>2011</b>

**Sources: Ministry of Planning and International Cooperation 2006**

The low costs housing for the low-income people did not take the first place in the priority and responsibility list of government, even though this kind of housing is an essential service that the government must make it available to the needy people. It is essential for the government to understand the increasing gap between the demand and its ability to make the houses available as a complete product to cover the needs of the low income group.

### **3. ADEQUASY OF HOUSING**

An adequate house is not simply a shelter, but is a safe home that is unique and belongs to its resident, and provides enough spaces for their daily use. A house should provide proper lighting and ventilation, and natural cooling, along with the basic necessities such as water, sewage disposal, and electricity. Housing should also be suitably located, and the area should be provided with basic infrastructure. The above should also be provided at moderate costs, which will not greatly burden the owners [8].

Currently, most of the construction materials are imported including iron, wood, aluminum, and electrical building equipments. However, bricks, stone and marble are locally produced. There are three medium sized local cement factories but their total production is insufficient to cover the local needs. Hence the deficiency of cement is met by importing in 1991 718,000 tonnes was imported and in 1994 increased to 898,000 tonnes [9]. As most of the construction materials are imported they are very expensive. The shortage in building materials has delayed the housing program implementations and has increased the costs for all income groups. Table 1.2 demonstrates the chnges in the building costs since 1980 to 2008, and refeclts the fluctuations in wages and materials costs to the builder [10].

**Table (1.2): The Changes in the Building Costs Since 1980 to 2007**

YEAR	Construction Cost	Exchange Rate	Unskilled Lab our	Cement	Aggregate	Ready Mixed Concrete	Mild Steel	Hollow Cement Block
	YR/m2	vs. US\$	YR/day	Tone	m3	m3	tone	1000
1980	3000	4.5	60	798	90-100	764	3000	325
1990	8000	16	260	3500	400	980	8000	1000
2000	47000	180	600	12000	1200	7500	47000	4500
2007	65000	200	1700	34000	-----	-----	250000	15000

Source: Ministry of Building and Construction

## 4. SITE AND SERVICES PROJECTS

[11] Abrams has pointed out that: “housing does not mean houses alone but is part of the whole framework of utilities, transportation, schools, finance, materials production, training, and all of the other essentials of urban life and urban formation”. To solve these problems, World Bank has included the objectives in 1970: implementing projects to provide affordable land and housing for the poor by achieving cost recovery and creating conditions for large-scale reliability of projects.

In 1970s the World Bank had adopted sites-and-services demonstration projects, which were focused on providing affordable housing and infrastructure, land tenure security and internal cross-subsidies [12]. The World Bank had also adopted sites and services projects after recognising the planning and providing services before the settlement proved to be cheaper than urban renewal. At the same time, the bank hoped such projects would solve other urban problems by improving living conditions, providing job opportunities and promoting land tenure.

At the same time, the international agencies and organizations have played an important role in changing housing policies in LDCs. Some governments in LDCs have achieved success by adopting sites and services besides squatter upgrading programmes as part of the housing policy instead of unique projects, such as Zambia, Tanzania and Senegal [13]. Towards the end of the 1970s, the housing crisis has persisted in many cities in LDCs. Most of the housing projects were funded by the World Bank and other agencies have failed to provide affordable land and housing for the poor,

they failed to achieve cost recovery and most of them could not be replicated in other parts of the cities in other urban areas:

The project-by-project approach often supported by the international assistance is costly and elaborate in administration and planning, unpredictable in terms of funding and slow in producing results. Even the more successful projects have not been able to overcome these basic deficiencies and are not affordable nor replicable, particularly for the poor, who are most in need. In the aggregate they hardly ever approach the national scale of urban shelter problems [14].

The World Bank has argued that most of these projects were not replicable because they failed to develop policy reforms and institutional development:

Government and donor programmes tended to divide a city into projects, improving specific neighborhoods without improving the urban policy and institutional framework such as the functioning of citywide markets for land and housing government efforts have not mobilized the private sector and community initiative, but in many cases have increased the cost of private solutions through overregulation and the rationing of scarce capital for investment [14].

## **5. METHODOLOGY:**

The first of the research methodology has followed a theoretical approach to understand the research units and follow up the irregularities and to know the traditional and modern directions to make the suitable houses available to the low-income people in Yemen. The second part of this study has conducted a field study in the targeted sample Sawan city as a project instance of the sites and services, where as many stages of the project were implemented, and many people have counted the housing units, which makes it easy to understand the positive and negative points. Then the research has revealed the results followed the recommendations to ease out the housing problems.

## **RESULT AND DISCUSSION**

This part discusses the field study conducted in Sawaan area. Field trips conducted in this area have revealed the characteristics of the housing area. Based on the data collection, documentation, analysis of reports, interviews with residents and personal observation, after visiting the area, it became clear that the Sawaan area was under site-services programme. This policy was undertaken by the government to make the suitable shelter available to the low-income groups by the erecting sample in Sawaan city, which is developed by the ministry of Housing and municipality for the low-income group. The government, in the middle eighties has followed new policies, which has changed the role of the government from shelter producers into participant with shelter resident: this is known as projects of sites and services “Sawaan”, which was suitable for the economic circumstances in Yemen at that time. However the method implemented by the government in the middle seventies, was intended to make shelter available (the public industrial housing “constriction and rebuilding Yemen bank city”). However, this did not succeed in reducing the gap between offer and demand, because the government has started making shelters, which has decreased the number of units built in terms of the economic ability of the government.

Initially, the programme was aimed to provide three rooms per household, but the project has revealed that, this could only be accomplished through the construction of high-rise structures. However, the land and the funds available could not support the construction of such houses. The project depends on planning the sites and dividing the lands into small pieces after leveling and providing it with the utilities and other main infrastructures grid and making it suitable to build on the lands.

Additionally, the site has to be provided with the basic social amenities such as schools, health and commercial units and the other services according to the development and the progress of the area. The government has sold the land to the low-income people in Sawaan; others moved from other low-income areas in Sana’a city. The new land owners were given enough time to pay the government for their land; most of the residents own their plots, while a few rent houses from the landlords.

Building housing units is the responsibility of beneficiaries and to complete by themselves based on their own income. The houses were built according to the needs and economic power of the low income group. Therefore, projects sites and services are different from other housing projects for low-income group in terms of several characteristics such as: flexibility, gradual growth, and the participation of both the government and population. Affordability has also been made possible by the reduced cost of construction by hiring Sawaan for the residents to construct their new shelter. To ensure affordability, the ministry of Housing and municipality has used a variety of cost-reduction strategies in the housing project in Sawaan including: using a building code that produces low-cost structures, provision of low-cost labor by residents to construct the structures; using low cost material for construction and offering job opportunities to the residents in construction and providing them a source of income. However there were some negative aspects in Sawaan project such as: the land used for installing the infrastructure is not adequate and spacing between the units was small; and thus, less land has been used for structures. Therefore, the small size land was not enough to build units with three rooms, which was one of the suggestions made by the ministry of Housing and municipality. This has eventually reduced the number of rooms and resulted in the horizontal extension of the residential units outside the boundaries of the land (Project area does not agree with suggested plans, because the planning opinion different from implementation field); another consequence was the inadequacy of units, which were unable to accommodate big families. Moreover, there were serious financial difficulties to cover the expenses of the project; and therefore, it unable to provide the required sites as planned. Also, the low level income of most of the families have restricted the construction of housing units (Big percentage of landlords sold the land by transferring the properties to other people despite the prohibition that, the workers of the system could not implement the imposed conditions only at the beginning stages of the project); there were inadequacy of proposed home design for many of the population and inability to meet the actual needs of the targeted segment of the population of the project.



## **6. CONCLUSION AND RECOMMENDATIONS**

As mentioned earlier, Sawaan area was a site-services programme. This policy was undertaken by the government to make the suitable shelters available to the low-income groups. Based on the above dissection, the study has revealed the advantages and disadvantages of the policy of the sites and services, which was intended to help low-income families in Sawaan area to obtain housing. This project has flexibility in providing different alternatives for housing space plots of land to build residential housing units based on the purchasing power of the residents. However, the units were not built as promised due to the inadequacy of the land size; therefore the houses were not spacious enough to accommodate big families; financial difficulties, to cover the expenses of the project, and the low level income for most families has hindered the construction of their houses. It can be deduced that, there is poor planning by the government and there are no adequate studies to determine the needs of living commensurate with the funds available to implement such projects for low-income people.

Based on the above conclusion of the study, the author makes some recommendations, which can help in solving the current problems and avoid problems in the future. It is observed that the policy aspect of housing in Yemen is not specifically focused by the government either in the delivery, guidelines, affordability or the socio-cultural aspects of housing. At this point, it should be realised that the society has changed the dynamic equilibrium (Homeostatic equilibrium), where people are more affluent, sophisticated and the structural differentiation towards modern society has been universally accepted.

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