CHAPTER – I

DESIGN OF THE STUDY

INTRODUCTION

Food, clothing and shelter are the three basic necessities of mankind. Among these housing constitute a very significant part of the social, physical environment where an individual grows and matures as a good citizen. The importance of housing is universally recognized since the dawn of history. Even the Neo-lithic man who lived between 1000 and 2000 B.C built durable habitations like Pit-dwelling, Lake dwelling and beehive huts. Housing constitute very significant part of the social and physical environment where individual grows and matures as a good citizen. It also plans an important role in creating employment, maintaining health and social stability and preserving decent human life. Nevertheless, housing is a living problem for the million shelters less, especially in the developing countries. This is evident from the fact that a large number of people in cities and towns have to live on pavements or improvised huts in unhygienic conditions.

It is estimated that a quarter of the urban population in India is in slums and squatter settlements. The condition in rural areas is also far from the satisfactory. In most of the villages poor families live in dilapidated shelter in inhuman conditions. The housing inadequacy has both qualitative and quantitative aspects. The problem has been worsening in India owing to rapid
increase in population, fast rate urbanization, inadequate addition in housing stock, the steep rise in land and inadequate investment in other factors.

Traditional rural dwelling are constantly under threat from powerful environment forces such as cyclones, heavy rain and flood, as well as fire, damage from sunrise, creeping damp and termites. Even thieves pose danger to the house and inhabitants. If thatch is not maintained properly, it will cause leakage of roofs. Mud walls are easily damaged or destroyed; rapid rain in particular erodes their base, window and door frames are often and easily damaged by termites. Posts supporting the roof in direct contact with the ground tend not to last very long.

Housing condition is an important indicator of economic and social evaluation of a society. The housing condition of a large percentage of Indian population in towns and villages reflect the lack of availability of houses at affordable rate.

The affordability ratio is a good measure to evaluate the ease or the difficulty with which houses can be procured. This is determining by computing the ratio of cost of the house of the gross annual income of the average individual. In most developing countries this ratio is close two. In India it is nearer five and in some of the metropolitan cities high as ten. It would therefore take decade of saving for a person to be able to afford a house. There are four main factors primarily responsible for the problem in India. These are rapid increase in population, inadequate addition to housing stock, owing to rising prices of land and construction materials and inadequate investment in housing. Urbanization is
worldwide phenomenon and India is no exception. Though India's rate of urbanization is relatively low, the rise and density of population is much larger.

It is an acknowledged fact that the supply of dwelling units has not kept pace with demand, which is increasing fast owing to the growth in population. As such a well coordinate strategy for promoting development of small and medium towns together with a dramatic change in the physical plan in the cities to meet the needs of people in low and middle income groups. Since any declaration of “the right to housing” as a fundamental right has only a symbolic value, it is immaterial whether the Union Government finds the time opportune to come out with such a policy decision. Just as “right to work” has not solved the unemployment problem, surely another addition to the list of fundamental rights will not solve an equal problem.

The need for housing has become so acute that all land in the periphery of towns is threatened to be converted to urban land for the construction works. The picture is more acute near the Metropolitan Towns where continuous land is not available in plenty. Already, shortages have been in evidence to meet the growing requirements of immigrants and towns are bursting. If some radical measures are not adopted, the already serious problem of slums will become more appalling. India approached a population of 850 Million in 1991, with approximately 80 per cent of its inhabitants living in villages. Most of the rural houses are built out of earth or mud and covered with thatched roofs, such a form of shelter is indicative of poverty. The production of cement and bricks is unlikely to satisfy the nation's need.
A house to live is one of the basic human needs. It is fundamental for man's existence and survival. For the limits of man's thermal adaptive capacity are very narrow. He is able to live only under the special environmental conditions, which determine his quality of life. Climate changes beyond the adaptive capacity of man destroy his resistance power and result illness develops. The shelter requirements arose because of the basic biological need. On satisfying his biological need man also attempted to satisfy his physiological needs for refuge for rest and reproduction. Soviet Union needs at least 50 million new flats to fully satisfy the people's housing requirements, institution that promote channelising the private resources into housing in a constructive way.

Housing therefore should meet four requirements, viz., (a) shelter from extreme heat and cold and from intruders, (b) security from the dangers of fire and building collapse, (c) conditions, which promote good health such as clear and ample water and the disposal of all kinds of waste and (d) adequate space and privacy.

People are the primary and ultimate source of any wealth whatsoever. If they are left out, then nothing can ever yield real fruit. Development starts with people and not with goods. It starts with people and their education, organization and discipline. Without these three, all resources remain latent, untapped and potential. So precious is a man and so decisive is his role in shaping his own future and that of the universe. The first and the best training ground for man's development of his varied facilities is home. To possess a home, therefore, may be considered as the first step on the road to social and
economic development. Home provides the physical framework in which the human, social, economic and cultural resources of the individual are released, enriched and integrated.

This modest and essential need is not met by millions of people in the world. This burning issue, the pressing housing problem is a challenge to both the developing as well as developed countries. The problem of housing, which came to the forefront after the World War II through varying in extent and nature from country to country, has one characteristic feature universal in its incidence, viz., a serious shortage. While the housing shortage in a physical sense is to be met with in all countries in a greater or lesser degree, in economically advanced countries (particularly in Europe and America), the shortage is of a different nature, viz., qualitative shortage. Generally speaking, acuteness of the housing problem is correlated with the stages of economic development of a country. Under Developed Countries with a comparatively low per capita income and the associated socio economic problem have to extend with a housing problem much larger. About one fourth of the world’s population does not have adequate shelter and it lives in extremely unsanitary and unhygienic conditions. Even for the leading nations of the world, housing is an insurmountable problem. In the United States itself there are over four million houseless people. Soviet Union needs at least 50 million new flats to fully satisfy the people’s housing requirements.

The housing problem of course, is more chronic in the third world countries where estimated two thirds of population, amounting to 1.2 billion
people lives below the poverty line. About 100 million people are estimated to be shelter less\(^3\). In many cites of the developing countries 20-40 percent of the people are squatters with no legal title over 150 million people in the urban areas of the poorest countries have less satisfactory shelter.

Among the democratic countries, the housing shortage is, perhaps the largest in India. A total of 271 million people constituting 37.4 per cent of the population are the below the poverty line in our country\(^4\). A large percentage of the population even above the poverty line cannot afford to acquire houses as they hardly have any significant saving out of their low income. In Calcutta an estimated 6 lakh people sleep on the pavements and in Mumbai about one lakh do so, although street sleeping permits no family life, no privacy, no relief from heat, no escape from cold or rain and decent means for disposing of human waste. It is the way of the street animal, the lowest form of urban life.

The National Building Organization (NBO) has estimated that in 1981, there was a shortage of around 2.1 crore dwelling units; this shortage rose to 2.47 crore units at the beginning of the Seventh Five Year Plan (1985-1990). There is a shortage of 18.8 million houses in rural areas and 5.9 million in urban areas. Apart from the existing backlog in housing the rapid increase in population between 1985-1990 would generate roughly an additional requirement of housing units to the extend of 16.2 million of which 12.4 million will be in rural areas and 3.8 million in urban areas. Thus we can see that the magnitude of the housing problem is gigantic.
Housing is a global problem. There is hardly a single major city in the world without form of housing problem. As a developing country, Indian Government has a very large commitment to in fracture like, building road power plant irrigation, communication etc. Because of resource constraints we find it difficult to meet all of them. The relative position of housing in this scenario is rather low. India spent about 2 to 3 percent on GNP (Gross National Production) on housing. This is much lower when compared to developed countries.

The United Nation had estimated that for developing countries like India the annual construction rate of 8 to 10 dwelling units per thousand people in the next two- three decades should be achieved in order to prevent further deterioration of housing situation. When compared to this, the rate of house construction in India has been quite disappointing. It has been estimated that as against the requirements of 5 dwelling units per thousand population per year due to the growth of population alone, the net addition to the housing stock was only 2 - 3 dwelling units per thousand population per year up to 1971. Between 1971 and 1981 this rate increased to 4 dwellings per year. The need for improvement of old stock further adds to the housing problem.

At present in India, both public and private sectors create housing units. The Government's role will have to be restricted to the improvement of slums, direct provision of housing to the weaker section of the society, encouragement and support of housing finance. The Government had adopted many policies and programmes for the promotion of housing. Various schemes are also adopted to various section of the people for the same purpose. Through
the National Housing Bank and other institutions by providing financial assistance, the Government of India is trying to solve the crucial problem of housing.

The private sector in India is playing a crucial role in construction of houses. The largest part of the investment for housing has come from the private sector. During the Sixth Five Year Plan private sector accounted for an investment of Rs. 18,000 crore out of the total investment of Rs. 19,491 crore, whereas the public sector share was insignificant at Rs. 1,491 crore.

During the Seventh Five Year Plan the private sector contributed 29,000 crore whereas the public sector contributed Rs. 2,458 crore to the total investment for housing. Industrial households largely undertake construction of houses in the private sector.

Understanding the seriousness of this global problem of housing shortage, the General Assembly of the United Nations has officially proclaimed 1987, as the International year of shelter for the Homeless. As stated in the General Assembly Resolution, the purpose of activities before and during the International year of shelter for the Homeless is to improve the shelter of neighbourhoods of some of the poor and disadvantaged by 1987, and particularly in developing countries according to national priorities. Also it aims at demonstrating by the year 2000, ways and means of improving the shelter and neighbourhoods of the poor and disadvantaged class of people and to eliminate the housing problems during the coming years.
The co-operative sector is also playing a crucial role in housing activities in India. They are providing housing for all sections of the people. Especially those with limited means. They have already constructed 7 lakh houses or flats and almost the same number is under construction.

In a state like Kerala the problem of housing is even worse than the National scene. Housing has become an eternal problem due to high density of population, non-availability and high cost of land, financial constraints, increased cost of construction, due to the hike in the cost of building materials, micro family system, etc.

According to 1991 Census, there were 54.59 lakh houses and 55.13 households, indicating a numerical shortage 54 thousand houses as against 1.56 lakh according 1981 Census. The underlying factor for reduction in shortage was the rate of growth of residential houses during 1981-1991 was 27.64 per cent against population growth 14.32 per cent. The average size of household in Kerala works out to 5.3 persons, while it is 5.6 persons in India.

The projection of the Kerala State Planning Board states that the population would increase by 38 lakhs from 290 lakh in 1991 to 328 lakh in 2000 A.D. Assuming the average household size as 5.3, the number of houses required for accommodating the increased population would be 7.2 lakh. Thus the total demand for construction of houses during 1991-2000 is approximately about 16 lakh.

The problem has become so chronic in the state in recent years, especially in Ernakulam District, which is the commercial capital of the State.
According to Department of Economics and Statistics Report 1994, Ernakulam stands second in the total number of residential houses in the State. It is 549 out of a total of 5460, which comes to 10 per cent, which is far away from the requirements. This shows that the housing problem in Ernakulam District is very acute and complicated. Hence the study tries to give an overall picture of the housing conditions in Ernakulam District.

**STATEMENT OF THE PROBLEM**

Housing, one of the most essential needs of human being assume a decisive part of the social and physical environment, where an individual grows and attains maturity to assume various responsible roles in his lifetime. The place and the environment, where a person is born and brought up, significantly influence his adult personality. Resolving the housing problem in any nation is of paramount importance in maintaining the social stability and security to human life. Housing is one of the most serious problems for millions of people all over the world and as such this issue has attained the attraction of various Policy Makers, Engineers, Scientists, Social Scientists and the Non Governmental Organizations throughout the world. Thus the problem of housing itself assumes various dimensions.

The problem of housing and its associated issues has been ever increasing in India due to the rapid increase in population, inadequacy in housing stock and investment, fast rate of urbanization, labour migration, etc.

The problem of housing is a chronic one, especially in a state like Kerala where there is a high density of population when compared to other states.
in India. Several major agencies like the Kerala State Housing Board, Kerala State Housing Co-operative Federation, various Government Departments and several other private agencies and Building Contractors have been engaged in the State in resolving the problem of house construction. But their contributions account for a miniscule share when considering the gravity of this problem in the State. Kerala's population was 219 lakh in 1991; it has been projected to be 328 lakh in 2001. The family size in Kerala in 1991 was 5.3 and assuming the same family size of 5.3, additional houses required, consequent on the increasing population has been estimated at 7.2 lakh in 2001. The total demand for houses in 2001 thus works out to 15.94 lakh as against 8.74 lakh in 1991. The remittances made by Keralites abroad to the State have further led to an increased demand for houses in Kerala. The popularity of the micro family system in Kerala society has further aggravated the chronic problem of housing in the State. The ever-increasing demand for houses in the State has provided ample scope for construction workers not only within the State but also for workers from the adjoining State of Tamil Nadu, Karnataka, Andhra Pradesh, Bihar and Uttar Pradesh. The lucrative trade in various building materials in the State also points to the fact that the housing industry in the State of Kerala has a great influence in the socio-economic, cultural and political fields in the State.
REVIEW OF LITERATURE

E.V. Anoop (1994) describes the low-cost quake resistant houses with pre-fabricated lightweight steel and timber structures developed by Central Building Research Institute, Rookie. Other low-cost building materials developed by Council of Scientific and Industrial Research (C.S.I.R.) are: a) Building bricks and blocks using fly ash; b) Clay flash bricks; c) Plastic composite paneling materials; d) Fire retardant thatching materials, etc.

Analyzing the question of housing in the country, C.V. Ananda Bose (1996), keeping the essence of Nirmithi Movement in Kerala underlines the need for propagating cost effective, environment friendly building technology to tackle the problem of Rural Housing. He emphasizes the need for bringing about a new design and construction culture, avoiding costs and eliminating wrong notions. He calls for an integrated approach involving P.R.Is, N.G.Os and women in addressing the task.

P.N. Ansari (1999) pinpoints the housing situation in the urban scenario and rural housing scenario. He opines that mass housing schemes have to be sustained during the coming Five Year Plans through enhancing investments in the housing sector, eliminating all urban slums and provision of adequate amenities and facilities in the urban region and that the up gradation in the quality of semi-pucca and kucha structures.

Chauhan, S.P. (1997) analyses the historical perspective of rural housing schemes, the Indira Awas Yojana (I.A.Y.), a centrally sponsored scheme for rural housing and linkage of I.A.Y. and other schemes. He also states the
salient features of I.A.Y. such as quality of life, infrastructure, safe drinking water and fuel. He is of the opinion that along with the habitation to the poor in the rural areas, various schemes such as drinking water, sanitation and infrastructure, launched by the different Ministries should be coordinated to ensure success.

Dr. Debabrata Lahiri (1996)\(^9\) categorizes the houses into pucca, semi-pucca, kucha and semi-kucha. He observes that Kerala, Himachal Pradesh, Punjab, Lakshadweep and Chandigarh predominates other states in case of households in rural areas owning pucca houses. Service facilities available to rural households are interlinked with the availability of safe drinking water and toilets. He opines that technology for low-cost houses has to be evolved in the National Housing Policy.

Dr. Harekrishna Singh (1999)\(^{10}\) by welcoming the I.A.Y. Scheme observes that good Policies alone will not ensure good results. By analyzing the housing problems, rural housing Plans, I.A.Y and its achievement, he also observes that the success of rural housing schemes depend on the active participation of the people, rural unemployment, rural poverty alleviation programmes and low-cost technology for house building.

R.N. Iyengar (1996)\(^{11}\) suggests a technological approach as the right answer to the rural housing problem. Such an approach will be routed in a humane policy of sustainable development, employment generation and peoples' participation. He makes an in-depth discussion on policy, professional and technological issues of housing and unravels the various dimensions of the problem.
Dr. Lahiry, S.C. (1996)\textsuperscript{12} observes that the rising cost has a dampening effect in the housing sector and the need of the hour is to promote low-cost and environmentally appropriate technology and use of indigenous resources. He opines that the housing concept has undergone drastic changes and as such the skills of the rural people to take up new housing technologies have to be developed with the involvement of N.G.Os. Lack of adequate finance and infrastructure facilities being the main constraints, he calls for adequate Government support in financing rural housing.

Dr. Khurana M.L. (1998)\textsuperscript{13} analyses the magnitude of the housing problem, housing finance companies, legal aspects of housing co-operatives and procedural simplification of housing loans. He suggests the necessity for education and training for the members of the housing co-operatives. Legal aspects include the adoption of model law framed by the Central Government. With regard to education and training he also suggests the creation of awareness among members about the philosophy, ideology and principles of co-operation, their rights, duties and obligations.

Krishna, R.R. and Ganesh Murthy, V.S. (1999)\textsuperscript{14} are of the view that there is a vast scope for housing promotion in India and the banks and housing finance companies can play a vital role in the promotion of housing. They suggest that reduction in the housing loan interest and simplified procedure for sanctioning housing loan will boost the construction of houses.

Mrs. Leelamma Kuruvila (1999)\textsuperscript{15} throws light on National Housing Policy and new initiatives in housing finance. She suggests the change in the
legal framework, simplifying the procedure for housing finance and the active involvement of the Government in the housing sector will definitely mitigate the housing problem.

Dr. Mohinder Singh (1999) states the magnitude of the housing problem in the country and various national housing policies of the Government. He reviews the detailed statistical data starting from the Second to the Ninth Five Year Plan with the following suggestions: a) More emphasis has on quality rather than on quantity; b) sufficient loan amount free from corruption at a low rate of interest; c) a country-wide survey to find out the real housing shortage; d) standardization for low-cost housing and; e) regular monitoring and follow up action.

Parimal. H. Vyas and Dr. Sandip. K. Bhat (1999) who analyze the major housing finance institutions, critical issues of housing finance, interest rates and the repayment techniques observe that the restructuring of housing finance institutions by developing appropriate marketing orientation programmes are necessary to face the challenge in the present day world of liberalization and globalization.

Dr. Raj, K.N. (1996) on evaluating the rural housing scenario in the country underscores the need forgiving higher priority to rural housing and extension of essential facilities to such housing. He observes that even the financial allocation made for them had not been adequately utilized nor has enough attention been given to reducing the construction costs. Calling for the
active involvement of N.G.Os in building rural houses he warns against the hostility of vested interests to cost effective technologies.

Sharma, S.K. (1996) stresses the need to evolve a new approach to habitat issues by pointing out that lasting solutions lies in the empowerment of people to enable them to have access to human rights to housing processes. In his opinion the empowerment of local Governments is a pre-requisite for empowerment of the people and the security of tenure, protection against violations of housing rights are the essential ingredients of a well thought out strategy.

Sharma, A.K. (1996), by highlighting the fact that the challenges of homelessness and urban slums are largely the spill over problems of inadequate rural habitat and suggests some measures to improve the rural housing scenario. He concludes that housing is closely connected with growth of population, modernization, poverty, development and information and the poor people of India lack all basic facilities as they are incapable of meeting the rising cost of building materials. He also opines that we cannot solve the housing problem without a strong political will and properly designed strategies.
SIGNIFICANCE OF THE STUDY

Housing and its problem play a significant role in the economy of the state and country as whole. Shelter is the most crucial problem as compared to other necessities of life. This is because certain inbuilt constraints, which are peculiar to housing, are immobile. With the development of better methods of cultivation more food can be produced and with the expansion and advancements of transportation and trade, food can move from one place of surplus to other place of scarcity and thus imbalance between food, supply and its demand can be easily corrected. This is why food problem is no more a menace of developed part of the world. Clothing problem also can be solved on more or less similar lines, but owing to immobility of housing development of transport and trade as little impact on housing problem. Secondly, unlike food and clothing, housing requires a very heavy initial investment because which many are unable to have adequate housing facilities. Thirdly, housing problem dovetails into several other problems such as population, land, finance, transport, taxation, building industry, etc. Consequently dealing with housing problem is tantamount to dealing with all these allied problems, which is a Herculean task.

About 80 percent of our population lives in villages centered on Municipalities and towns. So there must arise a housing problem in all respect. Most of the people in this rural area are below average in consideration of their income and their earning capacity so that they cannot build a house immediately due to lack of sufficient funds and availability of material. But each man has an
idea about his own house in his own name and their ability to fulfill the cherished dreams in reality.

**IMPORTANCE OF THE STUDY**

The State of Kerala is in the forefront among other states with respect to high rate of density of population and social economical and cultural developments as influenced the growth of housing in the state and which in turn depends on the housing problem.

Though Kerala is a small State, it is seriously affected mainly by the housing problems. Though Kerala is not industrially so advanced, there is good flow of money from Gulf and other countries which has stimulated the demand for housing in a big way in recent years. Many other factors such as density of population, developed road transport, high standard of living and number of financial institution stimulate the increase of housing in Kerala. The two important function of housing are creation of jobs and shelter for living. In India creation of shelters plays a more important role than creation of jobs.

There are two types of housing agencies in India and also the State of Kerala. The Government's role will have to be the improvement of slums, and provision of housing to the weaker section of the society and encouragement and support of housing finance institution that promote housing in a constructive way. Thus the importance of housing industry in nation's economy is amply highlighted. More over, a study of this kind is relevant as far as the services and finance to housing area and its role in the economy of the state are concerned. In terms of employment, direct employment of the housing agencies, it accounts for
3.5 percent of the total employment and also reduces the unemployment in the construction work.

**SCOPE AND COVERAGE OF THE STUDY**

Even though the study can be carried out from various angles such as from the point of view of the consumers, i.e., the house owners / households, building contractors, various institutions involved in housing finance, construction workers, labour contractors and suppliers of building materials, the present study is intended to analyze the socio-economic conditions and other aspects related to the construction of houses by various categories of households only. Taking into account the problems of housing and the universality of the phenomenon the present study is also confined geographically to the district of Ernakulam only.

For a detailed analytical study of the house owners in the district of Ernakulam, a Stratified Random Sample Survey has been conducted covering all the 7 Taluks in the district of Ernakulam and also by covering all the three income groups, viz., 'Low Income Groups', Middle Income Groups' and High Income Groups' to make the samples representative in all respects. An attempt is also made in the present study to identify the major problems confronted by the respondents of various stages of the construction of their houses.
OBJECTIVES OF THE STUDY:

Following are the main objectives of the Study:

1. To make a review of the history of evolution of houses in Kerala to its present stage
2. To make an overview of the Traditional housing concepts of Kerala.
3. To make a review of the Rural Housing Scenario of Schemes in India and in Kerala.
4. To make an analysis of the housing finance offered by the Housing Finance Companies in India
5. To make an in-depth analysis of the socio-economic conditions and other aspects related to the construction of houses by various categories of the households in Ernakulam District.
6. To identify the problems confronted by various 'Income Groups' in the District of Ernakulam at different stages of their house construction.
7. To make suitable suggestions and recommendations based on the findings of the study.
METHODOLOGY

The study is an empirical one, which is based mainly on primary data. Secondary data required for the study have been collected from various books, reports and journals related to the topic.

Primary data required for the study have been collected by means of structured schedules administered among the select households in all the 7 Taluks in the district of Ernakulam. Other information related to the housing industry in Ernakulam District have been collected by means of interviews and discussions with the households who have constructed their own houses, architects, building contractors, carpenters, construction workers and the leading residential flat builders such as Skyline Builders, Ernakulam, Yasoram Construction Company, Ernakulam, National Builders and Developers, Mamangalam, Ernakulam, Link India Homes Pvt. Ltd, Ernakulam, Star Homes Ernakulam, Bhageeratha Builders, Ernakulam, and the office bearers of the Kerala Builders Forum, Ernakulam.

The study area, i.e., the District of Ernakulam is divided into three Zones comprising of seven Taluks. Zone - I consists of three Taluks, viz., Parur, Kanayannur and Cochin. Zone - II consists of Kunnathunadu and Aluva Taluks and Zone - III Muvattupuzha and Kothamangalam Taluks. These seven Taluks consisting of 15 Blocks comprising of 87 Grama Panchayats in the District.

Samples at random were collected from 60 Grama Panchayats and from each Grama Panchayat 3 samples were collected, grouping the respondents into 3 categories, viz., High Income Groups, Middle Income Groups
and Low Income Groups. Thus altogether 180 sample respondents covering the entire District of Ernakulam have been taken for the present study.

COLLECTION OF DATA

A. Primary Data

The primary data required for the study have been collected from the households in the Ernakulam district of Kerala by means of structured schedules, discussions, observations, and interviews with expert persons. Several architects, building contractors, households, carpenters and construction workers have provided invaluable information pertinent to this study.

Field Work and Data Collection Tools

Structured schedules were used to collect primary data required for the study by conducting a field survey in all the seven Taluks, comprising of 15 Block Panchayats, in the district of Ernakulam. Before the actual field survey, a pilot study was carried out to include only the relevant questions and to eliminate unnecessary ones.

Sample Design

Altogether there are 15 Blocks comprising of 87 Grama Panchayats and 8 Municipalities and 1 Corporation in the area under Study, viz., the district of Ernakulam, consisting of a total geographical area of 2,407 Sq. Km. Considering the similarities in the topographical features, the District of Ernakulam, is divided into 3 zones for the purpose of the Study. They are: (i) Zone - I, consisting of 7 Blocks (which includes 23 Grama Panchayats), situated on the western part of the district; (ii) Zone - II, includes 5 Blocks (with 22 Grama
Panchayats), located in the central part and (iii) Zone - III, comprising of 3 Blocks (with 15 Grama Panchayats) is lying on the eastern part of the district. A Stratified Random Sample Survey is carried out by taking a total of 180 samples, selected at random from 15 Blocks, on the basis of the proportional allocation method to make the samples representative in all respects. Schedules for the purpose of the Sample Survey have been administered among High Income Groups, Middle Income Groups and Low Income Groups in all the Blocks in the Study area. 69 respondents from Zone – I, 66 respondents from Zone – II and 45 respondents from Zone – III have been contacted for the purpose of eliciting information pertinent to this Study.

Initially a Pilot Survey was carried out and in the light of the experience gained, the Schedule had been revised thoroughly before carrying out the actual Field Survey.

**STRUCTURE OF SAMPLE DESIGN**

Total Number of Respondents
(180 Nos.)

- Zone I
  - Parur
  - Kanayannur
  - Cochin

- Zone II
  - Kunnathunadu
  - Aluva

- Zone III
  - Muvattupuzha
  - Kothamanagalam

(3 respondents each from 23 Grama Panchayats)
(3 respondents each from 22 Grama Panchayats)
(3 respondents each from 15 Grama Panchayats)
Sample Selection Procedure

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<td>Grama Panchayats 22</td>
<td>Grama Panchayats 15</td>
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<td>Sample Respondents 69</td>
<td>Sample Respondents 66</td>
<td>Sample Respondents 45</td>
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Total Number of Samples from 3 Zones: 180.

Contents of the Schedule

The Schedule used for the present study comprises of seven blocks, the details of which are given below:

- **Block I**: Consists of General Information of the Respondents.
- **Block II**: Consists of Other Information of the Household.
- **Block III**: Consists of the Details of Household Facilities.
- **Block IV**: Consists of Details regarding various aspects at the Planning and Construction stages of the houses.
- **Block V**: Consists of Details regarding the Deployment of Labour at the various stages of the construction of the houses.
- **Block VI**: Consists of Details regarding the Mobilization of Funds and the Problems faced by the Households at various stages of construction of houses.

B. Secondary Data

The relevant secondary data used for the present study have been collected mainly from various Books, Thesis, Reports, Journals and Periodicals relating to the subject.
DATA ANALYSIS

Statistical techniques such as scaling and scoring techniques are used for the analysis of data. Scoring technique is used for identifying the problems of households and also for the interpretation of information elicited from the sample respondents. Scaling technique is used to analyze the opinion of respondents regarding various aspects of House construction of houses by the sample respondents. The data obtained from the respondents have been analyzed by applying various mathematical and statistical techniques like Percentages, Ranking, etc. The results of the analysis are subsequently presented by means of Tables, Charts and Diagrams, wherever it is found necessary.

LIMITATIONS OF THE STUDY

Most of the primary data required for the study have been collected from sample respondents based on sample survey method. As such, it is subject to the normal errors inherent in such social surveys due to the natural bias in the reporting of data by respondents. Even though utmost care has been taken in verifying the reliability of data, possibility of such errors cannot completely be ruled out. Although housing industry encompasses house owners, who are the real consumers of the housing industry, suppliers of building materials, builders and contractors of houses, architects and interior designers, institutions involved in housing finance, labour contractors, construction workers, etc., the present study is limited to the analysis from the point of view of the consumers of the housing industry (i.e., the house owners) in the district of Ernakulam only. The
present study is also limited to the socio-economic conditions and other relevant aspects pertaining to various categories of households at different stages of their houses only and as such the generalization of the findings, the present study is again limited to that extent.

PRESENTATION OF THE STUDY

The study is presented in SEVEN chapters.

1. In Chapter ONE, the Introduction, Statement of the Problem, Significance, Importance, Scope, Objectives, Methodology, Data analysis, Limitation and Presentation of the study are given.

2. Chapter TWO deals with an overview of the Traditional Housing Concepts of Kerala.

3. Chapter THREE is devoted to highlight the Rural Housing Schemes in India.

4. Chapter FOUR analyses the Housing Finance Schemes in India.

5. Chapter FIVE is devoted to make an in depth analysis of the socio-economic conditions and other aspects related to the construction of houses by various categories of households in the district of Ernakulam.

6. Chapter SIX makes an in depth analysis of the Problems and Prospects of Housing in Ernakulam District.

7. Chapter SEVEN presents the findings and conclusions of the study and the suggestions and recommendations based on the findings of the study.
REFERENCES


