CHAPTER IX

SUMMARY OF FINDINGS, CONCLUSION AND SUGGESTIONS

In the foregoing chapters the profile of Madurai city, housing famine, housing institutions, support to provide houses in Madurai city, space utilization quality etc have been discussed. The major findings along with conclusion and suggestions are now presented in this chapter.

9.1 Summary of Findings

The study has probed various aspects of housing problems pertaining to Madurai City like resident access to city amenities and infrastructure, their family income, occupation, modes and patterns of commuting. The survey gathered information on how residents of the city needed housing, water, sewer, electricity, transport and other social services. The surveyed population of 300 sample households reflected a range of income, education and residency status. The results of analysis are summarized below:

In the personal characteristics of household heads, sex shows that the majority of household heads (78.00 per cent) are males. It is found that male-headed households are higher than female-headed households are $X^2$
test has proved that there is significant association between tenure status and sex.

Marriage is one of the paramount events in a person’s life. Marital status of the respondent shows 87.00 percent of household heads is married. It is proved through the $\chi^2$ that there is no association between marital status and tenure status.

The sample distribution indicates that young people (below 30 years) head 12.00 per cent of households and old people (above 60 years) head 8.00 per cent of households. It is also found that the average age of sample households for renter is 50.80 years, 51.27 years for owners and 48.52 years for leased households. It is proved through $\chi^2$ test that is no significant relationship between age and tenure status.

The level of education of the household heads indicates that 13.33 per cent of households have primary or lower level of education. It is found that the economic advantage of having two or more members in a family with higher education is manifest in the larger or higher quality houses. $\chi^2$ test reveals that there is significant association between educational level of the household and tenure status at 5 percent level.
It is found that the average household size is 3.8 among medium family and size of the total sample household is 4.40 persons. By tenure status, the average household size is 3.82 persons for renters. 4.85 persons for owners and 4.28 persons for leased households.

Madurai is predominantly a Hindu City; the predominance of the Hindus in the city is also reflected in the sample. The sample shows that 78.33 per cent are Hindus and 6.67 per cent are Christians. It is proved through the $\chi^2$ test that there is significant association between religion and tenure status at 5 percent level.

Urban households tend to be nuclear families 68 per cent is corroborated across social class And 32.00 per cent of families adopt joint family system because of undivided ancestral property .The $\chi^2$ test reveals that there is a significant association between the nature of family system and tenure status at 5 percent level of significance .

Caste is a social division. It gives some identity to an individual in the society. The study reveals that 37.67 per cent belong to backward caste; this is because most of the communities coming under BC Category and 16.33
per cent belonged to SC/ST caste. It is proved through \( \chi^2 \) test that there is an association between Caste and tenure status.

In the urban areas, 66.67 per cent of sample households are engaged in permanent employment. It is found that 4.76 per cent of the household heads do not have any employment opportunity and 28.66 percent of household heads are engaged in temporary employment as part time and seasonal employment.

In the urban areas of the city, 85.66 per cent of households do not have any land. By tenure status 17.98 per cent of owners have owned more than 2.5 acres of land. It is found that the average size of land holding is 0.78 acres for renters, 1.28 acres for owners and 0.85 acres for leased households. It is proved through \( \chi^2 \) test that there is a significant association between land holding and tenure status.

The study reveals that 29.00 households have income of Rs.25000-50000 per year while 3.67 per cent of the households have income above 1.5 lakhs per year. The average annual income for renter is Rs.69,092.84, and Rs.1,10,507.87 for owners, and Rs.90,135/- for leased households.
The inadequacy of household earning is very often reflected in their indebtedness. The study reveals that among all sample households, 7.00 per cent of households do not have any debt but 28.33 per cent households have the debt less than Rs.1,000/- and the 17.67 per cent households have the debt above Rs.3,000/-. The analysis shows that of the average sample households have the debt of Rs.2,967.00.

The occupied houses are classified into own houses, rented houses, and leased houses. It is found that out of 300 samples 59.67 per cent of the households are living in rented houses, 29.67 per cent of the households are living in own houses and 10.66 percentage are living in the leased houses.

The rent of the house is being fixed by owners based on age of the house, location of the house and the neighbourhood amenities available in the area. It is found that low-income group people prefer their houses in Rs.100-400 rent range and the high-income people prefer their houses in the range of Rs.2,000/- to 3,500/-. They live in the independent houses or apartments.

The average number of persons living in a room has close relation with income and rent. It is found that low rent is associated with higher PPR
ratio and high rent houses are associated with lower PPR ratio. The correlation between the rent and average PPR yields a coefficient of .0411. It shows the negative relationship between the two variables.

It is found that persons acquainted with the owners do not have rent contract. The rent contract varies from one year to five years. Some households have rent contract in written form, while others have oral rent contract.

The rent is not charged on a uniform basis. In the congested areas even for a small house, they pay high rent. On the one hand, 35.19 per cent of households feel that their owner is charging very high rent for their residence. On the other hand, 16.76 per cent of household feel that they are paying low rent compared to other houses in that area. Owners of the house have increased the rent of the house at frequent intervals. It is found that 63.67 per cent of the house owners increase rent once in two years. 29.05 per cent owners increase the rent every year and 7.26 per cent owners increase the rent once in three years.

Households search the house for rent through brokers, friends, mass media and personal contact. It is found that 51.95 per cent households
search the house through personal research with the help of neighbours and friends. Renters have changed their house frequently because of several reasons. It is found that 36.33 per cent households changed their house because owners have asked them to leave the house, 8.94 per cent of household find that their house is too expensive because owners charged heavy electric bill and 17.88 per cent household changed their house because of poor standard.

Renters used to shift their house at frequent intervals. It seems that 13.40 per cent households are residing in the present house for more than 5 years, 27.37 per cent households stay in their houses less than 2 years and 20.11 per cent households are living in the same residence for more than 10 years and they have become permanent residents.

It is found that a large number of houses have been constructed or purchased in late 70’s and 1990’s.

It is found that 22.48 per cent households want a house to increase their status in the society while others want to avoid the rent problem, because of good facilities available in their area. The old retired people of 15.73 per cent households want to have a house as a personal security.
There are several ways of acquiring ownership of the house. It is found that 46.06 per cent households have their house as an ancestral property 22.48 per cent of self-employed or professionals have constructed their house because of easy availability of housing loan and 5.62 per cent households own their house, which is given by the government.

It is found that in urban areas 69.67 per cent households get housing loan for housing additions and improvement, for repayment of existing loan and for other reasons such as purchase of consumer durable. Nearly 13.48 per cent households get loan because of subsidized interest rate. The high income and salaried people get housing loan for income tax exemption benefit.

It is found that the value of the house shows the tenfold increase since it was purchased or constructed. The value of the house increases because of escalation of land value, building materials, construction cost, speculation, and competition among purchasers.

Every owner of a house has a separate plan to improve the existing house or buy another house. Almost all households have a short-term plan.
It is found that the large number of owners want to improve their existing house.

The age of the house and quality of the house determine the maintenance cost. The repairs are made in response to breakdowns, broken window, basement leak and fallen plaster. It is found that the old houses require a large amount of money for maintenance and the new buildings require lesser amount.

It is found that small houses and old houses are being levied lower tax than the big houses, newly built houses with all basic amenities and neighbourhood facilities, and the road margin houses.

The lease amount is a contract payment to the owner of the house for one’s use of the house. It is found that low-income people prefer their house below Rs.25,000/-, the middle-income people want their house with basic amenities and they prefer their house in the lease value of Rs.50,000/- to 1,00,000. The high-income people prefer their house in the value of Rs.2 to 3 lakhs lease value.
The leasing period varies from two to five years. It found that 70.00 per cent houses are leased for 3 years lease; only 3.33 per cent of houses are leased for 5 years.

The study revealed that 18.67 per cent households are living in one-room houses because of their poor economic conditions. Their household environment is very poor because they live, cook, bathe and do rest of the activities in the single room.

The study shows that 41.00 per cent of the households live in 300 sq. feet floor area houses because they are economically unsound.

Persons per room ratio are the principal measure to the utilization of housing space. The income density relationship for all income classes is seen most quickly and accurately by shifting to average persons per room ratio based on total persons rather than households in each income class.

The average number of rooms and persons per room ratio consider the average density rising from 0.48 for a person household to 2.85 for a person household and the highest density 3.46 people for 13 person households. The income density relation (household size and income) is a complicating
factor. The rich households having an income of Rs.9,000/- and above accounted for a small share of overcrowded households. Hence, the percentage for this group is only 4.25 in the density group of 0.75 or less. The moderate density group 0.75 to 1.00 contains less than a proportionate share of low-income household. The highest percentages are found among the households with Rs.3,000-5000 income for owners, renters and leased users up to these peaks. The share of households in the moderate density group increases with increase in income and the increase is accompanied by declining indexes for the same income classes in crowded areas. The household size and PPR ratio show that those one-person household accounts for 2.00 percent households in the lowest density group (PPR ratio of 0.50 or less). 29.67 per cent households consist of four persons. The over crowding is found in larger households of 10 or more persons though relatively rare average 12 persons (3.33 per cent) comprise of extremely over crowded groups.

There is a direct relationship between space and average PPR, which combines the nature of the value density relation. It tends to be both small and crowded.
Persons per room by value/rent for occupied dwelling units by size revealed that there is direct relationship between space and price and inverse relation between space and PPR ratio. Both are combined with the nature of price density relation. It is found that the low price units tend to be both small and crowded.

Cupboard is used to store the goods and personal belongings. 38.33 per cent of the houses do not have cupboard facility.

Furniture facility is necessary for a decent appearance of the house. The rich households have good furniture facility in their houses.

Nearly 15.00 percent of households have enjoyed housekeeping facility in their houses. In addition, 14.33 percent households have separate space for the care of infants and ill persons.

The proper house must have a place for sleeping and dressing. It is found that 63.00 per cent of the households have bedroom for sleeping and a place for dressing.
Water has become a precious commodity in urban areas of the city. It is found that 83.80 percent of renters do not have water tap connection in their house. Therefore, they depend on public tap.

In view of health consideration corporation has supplied chlorinated water. It is found that 80.33 percent of the households are of the view that chlorinated water is good for health while others feel it has bad smell and they do not like it.

It is found that a large percent of households get water near the house, and 3.67 percent have water source above 30 meters distance. It is found that the largest proportion of households used kerosene as fuel. Poor households used to cook their food by using wood, cow dung and even dry leaves.

Proper ventilation is the prerequisite for the dwelling. It is found that majority of the households want proper ventilation facility and free flow of air followed by chimney for smoke.

Toilet is the important basic amenity of the house. It is found that the people who go out to defecate are higher among renter occupied households than the owner and leased households.
In Madurai city most of the residential areas have public latrines. It is found the households because of lack of privacy and improper maintenance have not used that public latrine.

Water has become a scarce commodity in urban areas. It is found that only 9.67 per cent of households have employed servants to fetch the water from water sources.

Electricity has been used for two purposes, one is domestic and the other is commercial purpose. It is found that 91.00 percent of households use electricity for domestic purpose, and 9.00 per cent of households use electricity for domestic as well as commercial purpose. The main areas of the city and industrial and commercial areas were provided with three phase and two-phase connection and only the residential areas were connected with the single-phase line.

Bad structural conditions and lack of amenities cause housing problem. The problems are discussed on the availability of neighbourhood facilities, drainage, transport, and environmental problems faced by households.
In the study area, it is found that 94.33 per cent houses have street light facility. 30 per cent of households face the persistent problem of noise pollution and vibrations from the small-scale industry, cottage industry, and railway line and roadside-moving vehicle, which create noise and which seriously disturb household activity. It is found that 16.67 per cent of households do not have the facility of streets in good condition and 12.33 per cent of households do not have adequate shopping facility. 85.67 per cent of household have good school for their children, 67.00 per cent of households have banking facility in their areas, 72.90 per cent of households have community hall for social gathering in their area, and 83.33 per cent of households have police protection in their area.

The drainage facility is available in almost all parts of the city. During the rainy days, people face the problem of stagnant water. It causes bad odour, bread flies, mosquitoes, cockroaches, frogs and even snakes. These are very harmful to the peaceful living conditions.

Garbage collection and dumping of the garbage is an important problem. Even though a large number of dumping pits are available for
some households, they dump the garbage in the street corners, while the others put it in the corporation cart.

It is found that poor households living in one or two rooms, do not have separate space for soak pit and they put the wastewater into open drainage, while the rich households living in independent houses let it into the kitchen garden.

Transport is one of the problems in almost all parts of the city, because the interior parts of the city do not have transport facility. It is found that 40 per cent of households do not face the problem of transport and 52.00 per cent households face the problem due to inadequate number of buses plying in their area during the peak hours, while people who own car or two wheelers face the traffic problem.

Environment sets the stage for the good housing preference. If the environment poses the problem, the living conditions and the quality of life will be greatly affected. Therefore, man keeps engaged in controlling the environment by his efforts of comfortable living. The general environmental problems include, water stagnation, mosquitoes, bad smell due to improper
maintenance of drainage and sewage disposal and the animals like stray cattle dogs, pigs and pests.

During rainy days, households face the problem of water stagnation and flooding of water. It is found that 38.33 per cent of households face major problem during rainy days.

In the study area, the industries like rice mill, food processing industries and cottage industries were located within residential area. It is found that the industrial waste is the main reason for the bad smell. In the study area nearly 70 per cent, households live in a well-maintained environment. In the study area the garbage dumping sites have been converted into housing plots and sometimes the agricultural lands have been converted into house sites. Therefore, people who are living in these plots face the problem of pest.

The households who are living in the poor environmental condition always face the problem of mosquitoes, flies, rats, human lice and mites that are responsible for environmental related diseases.
In most of the areas, mosquitoes and pigs thrive on them, worsening the environmental conditions.

### 9.2 Conclusion

The main conclusion that comes out from the foregoing study is that the housing problem in Madurai City is acute. In the urban areas, overcrowding of houses is clearly seen. The one-room houses are poorly ventilated and have no bathroom and toilets with multipurpose use. Thus, they have very poor housing environment. The basic need of life, however, remains unmet for poor households in the slum areas and shantytowns of the city.

The most popular dwelling type is the single storied and double storied house, which is generally occupied by several households who share bathrooms, toilets and even kitchens. This is more common especially in lower income households. The existing housing condition places the greatest health burden for poor households. The housing condition of poorer households’ needs to be improved.
The time is ripe to shun the untouchability attitude of orthodox economic theory towards housing preference to balanced approach towards social and economic development. There is an imperative need to recognize housing as a necessity of life next only to food and clothing, as an employment stimulant, and as wise expenditure.

A search for solutions in terms of preventive measures to keep the housing stock stable and productive measures to increase the housing completions should be simultaneously initiated. The primary task of our planners should consist more in working out a set of desirable and achievable housing standards and alternatives in urban life than generating imbalances by over planning one sector and neglecting the others. The crisis can be averted and should be averted, in a welfare state such as ours.

The basic problem of housing the poor can be better defined in terms of lower income in relation to the existing market prices of housing for a significant portion of the population. The problem was recognized as such in the First Five Year plan and a conscious policy decision made in favour of subsidizing rather than increasing the wages. To quote, “The alternative would be to increase the wages to such an extent as to enable workers to pay
the economic rent”. The balance of advantage however lies in the provision of subsidized houses. In the 50 years, which have passed since then, the situation regarding the (relative) levels of income, has not changed much. The distribution of this income continues to be highly skewed.

In view of this scenario, the shift in government’s stance towards minimizing subsidies cannot be justified. (In fact as the cost of housing increases, subsidies will have to increase rather than decrease). Nor the policy to lower norms to bring them within affordability limits of the poor be justified. A policy based on affordability principles should give up any pretensions of helping the poor in their endeavour. If anything, such a policy might result in making available inferior housing to what this group possess or can buy in the market. This would be so not only in terms of net worth of housing services being provided but also in terms of the net worth of housing services being provided. The price which the beneficiaries would have to pay for housing provided by the government would include (in the absence of subsidies) not only the cost of land and construction of housing but also the administrative cost incurred by the various government departments in organizing and supervising the project. The poor person ends up paying more and getting much less in return.
However, it recommends that the affordability principle should be strictly adhered to in the case of MIG, HIG and even LIG i.e. all groups having an income above Rs.1,500/- per month. The current practice of government agencies and State Housing Boards of providing houses to these groups at below market prices is reprehensible. It is found that in the case of these groups those standards can be further lowered in terms of both space as well as fixtures. Infact, the scheme of District Development Agency to provide only partially built houses to the people belonging to these groups is a move in the right direction.

For the very poor, the programmes have to be designed keeping in mind the heterogeneity of this group. For sub-groups which give priority to location, if it is not possible to give them housing at appropriate locations, efforts should be made to make employment opportunities available where housing is not that expensive. The urbanization and industrialization policy has to be linked with housing policy. This, however, is a matter for long-term policy. This is also true for policies directed towards increasing level of income of the poorer groups and decreasing inequalities in the system. In fact, housing policy can be used as part of the distributive policy of the government.
The ultimate solution to the problem of housing, however, is to treat the causes rather than the symptoms. The root cause is a level of income, which is so low that, at existing prices, even an extremely modest housing of acceptable standards is beyond the affordability limits of the poor.

9.3 Suggestions

The housing problem will be more and more acute unless the government plays an active role. Both the public and private sectors will have to participate actively and meet the needs of different types of consumers.

A housing programme is highly intensive and is in fact a double-edged instrument of development, which will conserve scarce resources and afford optimum utilization of abundant resources, human labour and work opportunities. The housing meets the minimum needs of the underprivileged masses in rural and urban areas and house construction provides employment opportunity both direct and indirect, long term as well as short term.
There is a need for the provision of better environment condition particularly basic amenities. Thus, not only the housing shortage can be reduced but also even the city fabric can be maintained.

The government may encourage the departmental housing through provision of long-term loans like grants-in-aid observed in police housing.

Slum clearance, and environmental improvement programmes should be taken up more rigorously. Slum clearance does not mean demolition of all the dwellings but selective replacement of the ones, which are identified as old, and the poorest. The others can be repaired with the provision of basic amenities.

The government must insist on all the industrial entrepreneurs’ public or private, providing housing for their employees on their own. The government can encourage the industrialists through provision of lands and long-term loans.

The social, economic and cultural background of the people must be taken into consideration.
Special imbalance causes growth of slums, and poor sanitation. The construction of dwelling units by the government must be based on concretized demand in a given area.

Before implementing, any housing scheme there is a need to analyse the purchase preferences regarding the type of housing. For instance, there can be preference for independent houses or flats that are multistoried.

In case of general allocation of house sites also, a new orientation is necessary. The present allocation of house sites is done by lottery or auction, which does not guarantee the benefits to those who need them. Both the methods depend on factors of luck and wealth respectively. An intensive survey based on the applications received may be necessary and segregation of different classes of people according to income under different house plot categories-LIG MIG in order to curtail undue competitions.

Ineffective regulation of prices of building materials also affects housing development and leads to decline in house production particularly in the private sector. Regulation of prices is necessary in the present inflation period.
The corporation should extend safe drinking water facilities to the remaining urban population to achieve the goal of 100 per cent population with stipulated norms of water supply.

Convert all dry latrines into low-cost sanitary latrines so that present manual scavenging system is eliminated in the city.

Like other metropolitan cities, the corporation should take steps to evolve and create a scientific and effective mechanism for collection and transportation and disposal of solid waste and in the process, convert as much the biodegradable material as possible into organic manure.

The years taken for land development construction of flats and for completion of task before making them ready for allotment or sale had been very long and such delays in the provision may be curtailed, so that the prices on housing can be reduced.

The rate of interest charged either by Housing Board or by HUDCO on the cost of capital invested on the flats might be reduced as the government manages these institutions.
The growth of unauthorized layout and real estate agencies may be effectively checked. The Housing Board can discriminate in pricing and duration of repayment between high-income group and lower income group allottees by charging less rate of interest.

Encouragement largely must be given to the housing board for implementing more schemes on low cost housing by the government of Tamil Nadu by way of providing liberal subsidy and loans. Low cost housing schemes must be projected well and must be completed immediately.

The Housing Board can undertake a scheme of providing dwelling units to those who intended to join by regular savings for the purpose. The Housing Board can do so in the collaboration with the nationalized bank thus tapping the resources of saving. The Housing Board should give priorities to those who have joined the schemes. The life Insurance Corporation can provide liberally tangible loans against insured policies proportionate to the sum insured.
Speedy steps may be taken to control the rising price of urban land through proper legislative measures. The long drawn legal battles of the acquisition of site can be overcome by effective legislative measure.

Effective legislation for ownership rights, mortgage facilities and loan raising avenues to the flat owners may be enacted to safeguard and propagate sale and ownership of flats.

There is a need for the formation of separate wing for the construction engineers and technicians to look after the construction and maintenance work quickly. It is suggested that a general survey of the needs of the people of a particular area may be undertaken and the public could construct the buildings keeping in mind the facilities demanded.

The corporation should develop housing colonies in a systematic manner by providing basic amenities in the spheres of education, health, recreation, sanitation and by facilitating adequate and regular supply of water and electricity.

The government should make available adequate land for residential colonies.
The corporation must enact and enforce practical legislation for conversion of agricultural land for residential purposes.

The government will have to rationalize the land use pattern and make a plan for vertical growth of housing colonies.

The government should prevent the tendency to use housing as an investment for profit making by stakes. Holding of more than one house by a household is to be discouraged.

The corporation should prevent further mushrooming of slums through legal and administrative action.

The government should promote self-help in the construction of houses for economically weaker sections, thus reducing labour cost through people’s participation.