Rapid and unplanned urbanisation is a marked feature of Indian demography. The urban population of India accounts for 27.8 percent of the total population equating to 285 million (Census of India, 2001). This represents a hundred fold increase in the past century and 40 percent increase during the last decade. If urban India was considered as a separate country, it would be the fourth largest in world, after China, India and the United States (Agarwal, 2005).

Urbanisation is not an evil process. It is a welcome sign of transition. But unplanned urbanisation can cause rapid migration to cities, resulting in slums having inhuman living conditions (Davis, 2006). Urbanisation is also associated with several socioeconomic and environmental problems. The major ones are housing shortage, unemployment, congestion, pollution, possible increase in crime rates, inadequate services like water supply, sanitation, drainage, sewerage and also defective educational, recreational, health and welfare facilities.

However, the most basic and primary product of urbanisation is poverty and poor housing conditions. It is reported that 23.6 percent of
urban population is poor. Their expenditure on consumption goods is less than ₹ 454 per month. These estimates, in fact, do not reflect the true magnitude of urban poverty because of the unaccounted and unrecognized squatter settlements, floating population and other ‘invisible’ population residing on pavements, construction sites, urban fringes etc.

Housing is a visible dimension of poverty in urban areas. Due to increasing economic activities in the metropolitan cities, people move into cities, and consequently the urban poor are forced to live in unhygienic slums and squatter settlements. Therefore development of slums form an integral component of the phenomenon of urbanisation.

A slum represents a habitat unit with defective physical, social and economic living conditions. UN-Habitat Report (2003) attempts defining a slum household as ‘a group of individuals living under the same roof that lacks one or more of the following conditions: access to safe water, sanitation, secure tenure, durability of housing and sufficient living area’.

The concept of slums and its definition vary from country to country depending upon the socioeconomic conditions of each society. The basic characteristics of slums as given by Government of India are - dilapidated and infirm housing structures, poor ventilation, acute
overcrowding and faulty alignment of streets, inadequate lighting and paucity of safe drinking water, water logging during rains, absence of toilet facilities and non availability of basic physical and social services (Chandramouli, 2003).

The pitiable living conditions in the slums of India have already been highlighted in the Census of India (2001), referring to the fact that slums are usually unhygienic and contrary to all norms of planned urban growth.

The global picture also presents the same trend depicting unacceptably high rate of urbanisation and massive increase in slum population. Many cities across the world have slums leading to over population of urban neighbourhood. It has been estimated that about a third of the world’s urban residents which comes upto three billion, dwell in slums (UN- Habitat Report, 2003).

In developing countries also, the number of people living in slums and shanty towns represent about one third of the people living in cities (Harpham and Stephens, 1991). United Nations Development Programme (2009) reported that India’s urban population is also increasing at a faster rate than its total population. With over 575 million people, India will have 41 percent of its population living in cities and towns by 2030.
The data provided by NSSO (2004) revealed that there are 52 thousand slums located in the urban areas of the country and about 8 million urban households live in these slums. This represented as high as 14 percent of the total urban households in the country. Correspondingly the total number of urban poor has also increased by 13.9 percent (9.86 million) in the year 2007 (Government of India, 2007). As reported by Government of India (2004), the number of slums was highest in Maharashtra (32%) followed by West Bengal (16%) and Andhra Pradesh (15%).

But urbanisation trends in Kerala, showed certain peculiarities. Unlike other parts of the country, urbanisation in Kerala is not limited to the designated cities and towns. Barring a few panchayaths in the hilly tracts and a few isolated areas, the entire state depicts the picture of an urban-rural continuum. The Kerala society by and large can be termed as urbanised.

The urban population in Kerala has been estimated as 25.97 percent, which is a little less than the national average. This increased density of urban population is mainly due to overcrowding of existing metropolitans, migration and extensive population growth in urban and peripheral areas. Thus Kerala has the third highest overall density of
population in India, which is 819 persons per sq.km (Government of Kerala, 2001).

In Kochi, the total area of the city is 94.88 sq.km and the total number of slums is 280. Among the total population of 6.77 lakhs, 1.27 lakhs reside in slums (Urban Poverty Alleviation Cell, 2009).

The living conditions in slums are generally not very conducive for the physical, mental, moral and social development of its inhabitants. Insanitary living conditions coupled with low purchasing power and poor nutrition add to the episodes of infection particularly respiratory and diarrhoeal diseases (Gracey, 2002).

Such a situation ultimately has a negative impact on the health and nutritional status of the slum population especially the women of reproductive age and their children. As WHO (1999) rightly pointed out, when infrastructure and services are lacking, urban slums and settlements are amongst the world’s most life-threatening environment. Even the common infectious diseases can often become catastrophic to the children living there.

It was estimated that in India, about 6 million children in the age group of zero to six years live in slums (Census of India, 2001). High incidence of undernutrition, high mortality and morbidity with a neonatal
and child survival rate far lower than the urban average, are some of the features observed by Agarwal (2005).

As per Fry et al. (2002) neonatal, infant and under five mortality rates are considerably higher among urban poor when compared to the national averages. In urban dwellings, one out of ten children born during an year, is not destined to see their fifth birthday and one out of 15 children is not likely to see their first birthday especially in less developed states like Uttar Pradesh, Madhya Pradesh, Rajasthan, Bihar and Orissa (Agarwal, 2005).

Infant mortality rate among slum population is 1.6 times higher than the corresponding national figures. The debilitating environment in urban poor settlements where 1.1 million births take place every year, may be the root cause of this high mortality rate. Further high incidence of low birth weight, at the rate of 50 percent of the urban poor neonates and faulty feeding habits including inappropriate breast feeding also add to the severity of this problem.

Although there has been a significant decline in child mortality over the past two decades, more than 80 percent of all deaths in India still occur among children below five years of age.

Among those who survive, more than half of these urban poor children do not attain their full potential in terms of growth and
development. They are underweight or stunted. Protein energy deficiency of varying degrees continues to be a major health problem of the under five category of the urban poor. Respiratory infection and diarrhoea, a product of insanitary living environment are the common illnesses that add to the severity of protein energy deficiency. Hookworm infestation, anaemia, vitamin A and B complex deficiencies also pose equally tough challenges to the health and well being of preschoolers.

Child malnutrition has its roots in mother’s womb. There are clear-cut evidences to show that the growth and development of children and the predisposition to metabolic health problems in the future, are closely associated with maternal nutrition and other socioeconomic parameters like female literacy, family size, purchasing power etc. Yet, poor maternal nutrition is the single most important factor for low birth weight babies, who are at the risk of infection, undernutrition, impaired physical and mental development. Rao et al. (2010) also pointed out that women with poor health and nutrition are more likely to give birth to low weight infants.

The most prominent type of nutritional problems among mothers, which have a dent on child health are chronic energy deficiency and low BMI (Body Mass Index), iron and iodine deficiency disorders (Kotwal et al., 2008). A number of factors are responsible for this, where the living
environment does play a significant role. A transition in the life style of women who live in urban slums; from the role of a wife and a mother, to members of workforce demands a lot of compromise in their family and child rearing practices. In fact they are forced to take up outside job to support their family in an urban set up. Owing to illiteracy, lack of education and skill, they work in unorganised sectors. They are often underpaid or exploited.

The mothers who involve in highly labour intensive task do not get sufficient time to recuperate after delivery. This further stresses mother’s nutritional status and reduces her bodily reserves (Rode, 2009), which in turn affects the lactation performance of mothers leading to early weaning and early introduction of improper supplementary foods. The compulsion to take up jobs in the informal labour market and the fear of losing it even on occasional absence, impose constraints on their child rearing practices too.

As a result, young children are fed insufficient number of times with ill balanced diet, by other care givers; who may be older siblings, relatives or neighbours. Available health facilities for prenatal and postnatal care, immunization, family planning and control of communicable diseases are also not utilized appropriately because of mother’s work in unorganised sectors. Ultimately the young children in urban slums setup are deprived of maternal care and attention, when they need it to the most.
It is therefore imperative to have some targeted strategies to improve the health and nutritional profile of mothers and children among urban poor. The population projection with a cent percent increase in urban agglomeration by 2026 (Prakash, 2002), further demands the urgency for such an approach to tackle the challenges emerging out of such situations.

An essential requisite to evolve viable strategies to mitigate health and nutritional problems of slum dwellers, is baseline information. The present study was an attempt in this direction.

Kochi, a metropolitan city in Kerala with largest agglomeration of slums, was identified as a potential area. The study has therefore been conducted in the urban slums of Kochi, with the main focus on assessing the health and nutritional status of women and their preschool children. The specific objectives of the study were:

1.1 To find out the socioeconomic status, housing conditions and hygienic practices of families in the slums of Kochi.

1.2 To assess the nutritional status of selected preschool children and their mothers in the slums.

1.3 To study the health and morbidity profile of selected preschoolers and their mothers.

1.4 To examine the correlation between nutritional and health status of mothers and their preschool children.