

## **CHAPTER-II**

### **REVIEW OF LITERATURE**

#### **2.1: INTRODUCTION**

The slum situation over the years has turned from bad to worse in most big cities in India (*Bhattacharya A., 1996*).

*UN-HABITAT (2003)* in “*Slums of the World: The face of urban poverty in the new millennium?*” reveals that the rural poverty in the developing world which was unique feature of the rural areas is rapidly becoming urbanized. Slums are synonymous with intra-city inequality. In Asia rapid urbanization and the expansion of urban-based economic activities led to rural-urban migration which put pressure on urban housing and other services, leading to the development of slums.

*Davis (2006)* states that Indian slums continue to grow 250 percent faster than overall population. Since 1970, slum growth everywhere in the South outpaced Urbanization.

Government failure to maintain a vigil over the regions mostly situated on marginal and dangerous land of the towns and cities of the urban areas and increase in the number of people living below the poverty line in urban area are few reasons for the growth of increasing number of slums in urban areas (*Dhar, 2008*).

*Sahu and Mohapatra (2008)* express their view that in India, rural poverty is declining, while urban poverty is increasing.

According to *Global Food Policy Report (2017)* poverty, food insecurity, and malnutrition are moving to the cities, as the world’s population becomes more urbanized. Between 1993 and 2002, the global rate of poverty—those living on less than a dollar a day—declined from 28 to 22 percent, which reflects a drop in rural poverty rates in developing countries. Urban poverty remained unchanged at approximately 13 percent. During the same period, the absolute number of poor people residing in urban areas rose by 50 million (from 242 to 292 million), while the number

of rural poor declined by 148 million (from 1,031 to 890 million). As a result, the urban share of the poor in developing countries rose from 19 to 25 percent in one decade.

Since our study is related to the living conditions of the slum dwellers with special reference to the two socio-economic problems - health and education, earlier works based on the living conditions of slum-dwellers and the problems of health and education in particular have been reviewed below.

## **2.2: LIVING CONDITIONS OF SLUM DWELLERS**

There is a growing volume of literature which discusses the problems of living conditions of urban slums in various cities of India and other countries.

*Ribeiro (1983)* mentions that slum removal and re-housing at or near the cleared site, upgrading of slums and squatter settlements over and above mere sanitation and development of plots for rehabilitation and for new migrants are the three basic strategies available for housing the poor in urban India.

*Majumdar (1992)* in a study opines his view that the dominant groups and social classes having the institutional power impose an urban system according to their interests and values. The urban poor serves the needs of the dominant group by providing cheap labour and services and the cause of their exploitation is their defenceless situation resulting from their dependency on the labour market, state institutions, and the city's mainstream life.

*Priya (1993)* comments that the resettlement colonies of urban poor of Delhi bear the characteristics of slums where there is absence of all vital aspects of public health.

*Chakraborty (1995)* reveals that urban poor and urban rich or middle income households mostly in Indian cities where the labour is cheap and the lifestyle is still not fully dependent on the electronic or mechanical gadgets as in Western countries are in a typical relationship where no amount of legal and regulatory mechanism could stop the growth of slums because of the economic reality of bargaining for the cheapest labour, goods and services by the city consumers and readiness of this migrant population, or the informal sector to provide them.

*Dahiwala (1997)* opines that poverty which is associated with the slum dwellers in the urban areas is observed to be growing day- by- day as a result of the migration of the people of the socially marginal groups from the rural areas. In order to reduce the rate of migration to the urban areas though anti-poverty programmes in rural areas are required to be given stress but corruption is one cause for the programme becoming unsuccessful.

*Chauhan and Lal (1999)* find in Ahmedabad slum that the levels of basic health, literacy and skills of slum dwellers are very low.

*Ali (2000)* comments that notwithstanding India's poverty alleviation programmes through the Five Year Plans urban poverty continues to be a matter of ever increasing concern.

*Loughhead and Mittal (2000)* discuss about the characteristics of urban poverty, by means of cases they have illustrated that vulnerability of urban poor is a dynamic condition and stresses on the roles played by Government, Non-governmental Organizations and Private sector in anti-poverty measures.

*Kumar and Gayatri (2000)* find that a vicious cycle of poverty is operating in the urban areas. With increasing population in India, villagers migrate to urban areas because of the incapacity of rural areas to support them above poverty level. In urban areas, the migrants are faced with the problem of unemployment, non-availability of shelter and limited access to the basic needs. The low levels of education and inferior skills of the rural migrants causes them to get less productive jobs, low wages, and partial unemployment from informal sector which creates lower income and saving.

*Bagchi and Gope (2005)* in a study regarding the social security measures availed by the rickshaw pullers and construction workers in Siliguri find that none of the two groups of workers are included in any social security scheme of the Government. There are three main reasons of not having access to any formal social security measures. First, lack of information from all sources- their employer, political party, governmental and non-governmental agency, about the governmental social security measures that are available to these two groups of labourers. Secondly, there is problem of their identity as specific eligible groups of workers and majority of them been migrants they have no

voter identity card or ration card under Siliguri Municipal Corporation area. Rickshaw pullers do not possess peddler's license. Thus the documents essential for establishing the identity for availing of social security measures are missing. Third, the two groups are separated and not unionized as a result they are unorganised.

*Izutsu, Tsutsumi, Islam, Kato, Wakai and Kurita (2006)* in the study of slum and non-slum area of Bangladesh find that the slum adolescents had lower school enrolment rate, lower literacy rate, lower family income, lighter weights, lower Body Mass Index and higher rate of child labour compared to non-slum adolescents. Long term malnutrition among females of slum is found. The mental health condition is bad among the non-slum adolescents compared to the slum adolescents.

*Kironde (2006)* reveals that urban poverty has been increasing in Tanzania and poor people have limited access to land and housing in urban areas, resulting in living in unplanned, marginal and risky areas. There is high and increasing level of overcrowding (i.e. occupancy of more than two persons per room) in rooms for urban dwellers. It is becoming difficult for the poor to own land, because of the high land prices and difficult procedures to access it. The administrative procedures take long time to make land available to the seekers so they get their land from the informal sector resulting in the rapid growth of unplanned settlements in all urban areas in the country. It is necessary to increase supply of planned land at lower cost so that large number of the urban poor can be enabled to access legal land.

*Ayyar and Khandare (2007)* find that in the slums in Mumbai there are powerful social networks and weak social networks in slums. The powerful social networks mainly that of men's network access resources while the poor and the most vulnerable like single mothers, physically handicapped members, women, widows, divorcee women are mostly excluded from processes leading to increased vulnerabilities of the most vulnerable.

*Dabhi (2007)* investigates that the Adivasis, Dalits and some backward castes and a large section of religious minority of Muslims are in the grip of poverty and reside in the slums of cities and towns in large number. Among these communities women suffer the most.

*Gilbert (2009)* states that there are immensely rich and immensely poor urban areas. Greater inequality is brought about by the migrants.

*Archambault, Laat and Zulu (2012)* find that there is a statistically significant and socio-economically a large relationship between access to basic services and migration of children to the slums of Nairobi. Data from three sources- Kenya Census, Demographic Surveillance System (DSS) data and Nairobi Informal Settlement Survey (NISS) data used for the study reveals that there is a strong correlation between availability of basic services like electricity, sewerage system quality of schooling, health facilities and social environment and presence of children in the slums of Nairobi and parents find basic services important for well-being of the children. The migration of children especially of primary school level to the slums is found to be strongly correlated with the services.

*Atlaw (2014)* states that more than two-third of Addis Ababa's people lives in slums. He finds that relocation of the slum dwellers has pros and cons. The relocated slum dwellers have better housing, sanitation, toilet, kitchen and low risk factors for disease. The cons of relocation of people from inner cities to outskirts are that the access to urban services such as education, health and transport is hindered.

Regarding the transportation facility in the slums, *Onyango (2018)* in a study of urban transportation situation in the "slum belt" of Kisumu city, Kenya finds that the road infrastructure in the "slum belt" is below urban planning standards in Kenya. The slum dwellers depend mostly on public transport facility. It is found that as the road condition deteriorates the charges for motorized services increases and with continuous deterioration of the roads all transport services comes to a halt and only bicycles, motor bike and "tuktuk" remains the means of transport. In the slum area of the city "tuktuk" is taking an important place as a means of transport as it is providing affordable, safe and flexible public transport in these areas.

## **2.2.1: Housing Condition**

### **2.2.1 (a): Household Characteristics**

*Majumdar and Majumdar (1978)* in their study of slums in New Delhi while describing the condition of shelter, they pointed out that ‘space’ is the missing factor in the slums.

*Jha (1986)* in his study of slums of Bombay- Bharat Nagar, Hanuman Tekdi, Golibar and Maya Nagar finds that the slum area is narrow, damp and dirty. The physical condition of these areas gets worse with the arrival of monsoon. The amenities like street lights and pathways are mostly absent in all the four slums.

*Rao D. (1987)* in a study of residents of slums ‘with’ or ‘without’ Housing Project in Hyderabad finds that ‘housing’ is an entry point for all round development of the slums. With house, people develop a sense of belonging. In pucca houses they will have space to store the raw materials and semi-finished goods. Healthy environment leads to lesser man days lost due to morbidity, resulting in more number of working days. For fear of loss of house the slum dwellers would repay the instalments regularly which lead to many positive side effects like more thrift, automatic consumption management and less wasteful expenditure. Thus the author stresses the importance of housing in slums which the slum dwellers lack in.

*Agnihotri (1994)* reveals that slums of developing and developed countries differ regarding migrants, location, congestion and stage of development. In developing countries the migrants been unskilled poorer people populate the inner-city slum first and after it gets saturated they move out towards the periphery whereas in developed countries the inner-city slums are a recent phenomenon. Congestion is very high in the slums of developing countries in comparison to those of developed countries. In the slums of cities of Madhya Pradesh congestion in highly industrialized cities is more due to high ratio of built-up area to vacant space on a plot of land (floor-space index). Overcrowding in the locality and room-crowding in huts results in lack of privacy, poor ventilation, water logging and social disintegration. The activities of slum dwellers are such that they require more space than the non-slum dwellers.

*Gill (1994)* has taken two slums from Bombay and Chandigarh for study. In Chandigarh the slum is situated at the outskirts of the city. The hutments range from frail mud structures to those made up by cloth, plastic sheets and bricks which are dependent on the economic capacity of the dweller. The jhuggi is not spacious to sit and therefore most of the residents sit or roam about outside. There are no proper lanes between the houses and the construction is totally haphazard. The slum in Bombay is located at a close proximity to the non-slum residential areas. The Bombay slum is much more congested compared to the slum in Chandigarh. The residential units vary from the weak to pucca houses, depending upon the financial capacity of the household. The atmosphere of the area is filthy, dark and unhealthy. In monsoons their belongings are destroyed by water. Due to lack of space inside their dwellings, almost all their daily chores are undertaken outside.

*Jha (1995)* also opines that the huts in the slum are not a finished product at any point of time but are continuously developed based on factors like availability of finance, security of tenure, nature of jobs, etc. A hut is mostly a single room enclosure. Majority of the slum dwellers lived in their own slums for over 15 years.

*Parekh (1995)* in the study of slums of Calcutta Municipal Corporation area finds that the bustees were characterized by overcrowding and congestion. The average number of persons per room was found to be about 3.75. Majority of the slum dwellers cooked and lived in the same room and hence there was associated risk of indoor pollution. The dwellings were constructed with temporary building materials. Each room was inhabited by a family who shared the common latrine and there was no arrangement for water supply, drainage and disposal of solid waste and garbage within the slum boundaries.

*Ghosh (1995)* in his study of Bankim Palli bustee in Calcutta finds that the size of the houses of this bustee was 20 feet in length and 18 feet in width. Most of the houses had one room. The average size of family occupying this one-room house was five to six. There was no ventilation. A small bathroom constructed of mats and gunny bags were added and shared by a number of families. Rain water poured down due to leakage in

the roof and dampened the houses. The dark and dampened atmosphere without ventilation in these huts caused a great health hazard.

*Rao B. (1995)* states that majority of the slums in Bangalore have formed due to availability of land in low lying drainage or derelict zones. Majority of the houses in the slums are classified as semi-pucca. The dwellings lack security of tenure and access to resources. These dwellings are also highly vulnerable to fire and flood hazards.

*Bhattacharya (1996)* in a study of the socio-economic condition of maid servants in the slums of Kolkata finds that in the sample population majority are rent payers. The highest percentage of slum dwellers lives in the floor area of less than 50 sq. ft. There is direct correlation between rent and the floor area.

A major problem in urban area was a lack of security of tenure for the urban poor. That was compounded by a lack of financing mechanisms for housing projects and for land acquisition for low-income housing, and by an inappropriate legal framework comprising rigid building codes and land regulations (*United Nations Economic and Social Council, 2000*).

*Aandahl (2002)* finds in the study of slums of Ahmedabad the slum-dwellers' most immediate needs are a place to live and basic facilities like water, toilet and electricity arranged in the order of priority. The slum-dwellers of the slums located in the privately owned land have higher living standards because of legal entitlement of the land while in case of the slums situated on the river banks, the flood-prone location of the riverbank slums make construction of toilets and water taps more difficult and also regulatory by-laws prohibit construction of toilets on the river banks.

*UN-HABITAT (2003)* in the "*The Challenge of Slums Global Report on Human Settlements 2003*" finds that security of tenure is more important for many of the urban poor than home ownership because urban poor may not be able to afford property ownership and so rental housing is the most logical solution while for some slum dwellers household priorities are more pressing than home ownership as protection from unlawful eviction is necessary for the slum dweller.

*Singh (2005)* in her study of dietary profile of pre-school children of slum dwellers of Shillong city of Meghalaya finds that 83 percent families lived in mixed type of houses and 17 percent lived in kachcha houses.

*Davis (2006)* reveals that Third World slum-dwellers occupy a variety of urban orbits, and are greatly concentrated in low rise peripheries. In Mumbai the typical chawl (75 percent of the city's formal housing stock) is a dilapidated, one room rental dwelling. It has a household of six people into 15 square meters; and the latrine is usually shared with six other families. Lima's callejones are made out of adobe or quincha (wood frames filled with mud and straw) and are very unstable. Sao Paulo's poor were living in rented rooms in inner-city called cortiros. In Buenos wood-and-sheet metal inquilinatos houses the poor urban dwellers in a single inquilinato room, sharing a communal kitchen and bathroom with five or more other families. In Cairo's one million poor people use Mameluke tombs as prefabricated housing components. Guatemala City's palomares, Rio's avenidas, Buenos Aires's and Santiago's conventillos, Quito's quintas, and Old Havana's cuarterias are in a dilapidated state and hugely overcrowded. In Beijing's inner slum the housing is lacking modern facilities. In Hong Kong people live illegally on rooftops or filled-in airwells in the center of buildings. The "caged men" - "a local term referring to bedspaces for singles, where the 'cage' suggests the tendency of these tenants to erect wire covering for their bed spaces to prevent theft of their belongings; the average number of residents in one of these bedspace apartments is 38.3 and the average per capita living space is 19.4 square feet. In Seoul people crowded into the 5000 liogbang which rent beds by the day and provide only one toilet per 15 residents. One out of ten inhabitants of Phnom Penh, also 1.5 million Cairenes and 200,000 Alexandrians sleeps on a roof. In Grogan, Nairobi, slum houses consist of one-room cardboard shacks.

*Lakshmanan (2006-2007)* in a study of slums in Chennai finds that housing is a key factor to the overall physical well-being of slum dwellers; the nature of houses being predominantly influencing other factors that affect health.

*Priyadarshi (2007)* in a study of Govindpuri, Madanpur khader and Yamuna pushta slums of Delhi finds that majority of houses were owned by the slum dwellers. Due to

illegal status and hence fear of displacement of the Yamuna pushta slum the inhabitants were reluctant to construct pucca houses. The new migrants to the slums mostly lived in kutcha houses due to poor financial condition. The illegal status of Yamuna pushta slum is a barrier to legal electricity connection but all the three slums face the problem of power cut. The street light was not functioning in the slum area as revealed by majority (98 percent) of households. The slum area remains dark at night and this affects the safety and security of the area.

*Gupta, Arnold, Lhungdim (2009)* in their study of health and living conditions in eight large Indian cities (Chennai, Delhi, Hyderabad, Indore, Kolkata, Meerut, Mumbai, and Nagpur) find that slums have much poorer housing conditions than non-slum areas in respect of construction material, residential crowding, or ventilation of the dwelling.

*Archer (2009)* in a study of slums in Bangkok, Thailand states that although there is constant effort by Government of Thailand to build low-cost housing and slum upgrading but still the policies are neither well-targeted nor always financially viable. Baan Mankong (secure housing) and Baan Ua-Arthorn (we care housing) were the two projects of the Government of Thailand for improving housing conditions of the poor. Though the objective of the removal of barriers to supply of and access to private housing was successful mostly by making private supply one of the main ways of meeting housing demand but the objective of provision of adequate housing to those who cannot afford private housing have been less successful.

*Uzun, Cete and Palancioglu (2010)* in their study find that though the Government of Turkey tried to solve the problem of illegal settlements which are unsafe, overcrowded, temporary, unhygienic and illegal the study states that a new model for solving slum or slum/gecekondu (a structure constructed illegally by an individual on an occupied public or private land) issues is developed by the Turkish Housing Development Administration in 2003. In this model the illegal settlements were demolished and new houses were constructed either in the same area or different area and were given to the right holders with the help of local authorities in several cities throughout Turkey. The housing unit is provided to slum owners for their slum and also an opportunity is given to the squatters and needy people living in other parts of the cities to buy only one

housing unit with long term payment facility at affordable rate which prevented the growth of illegal settlements.

*Gulyani, Talukdar and Jack (2010)* in their study of slums in Dakar, Johannesburg, and Nairobi find that slum residents have heterogeneous living conditions which depend on their welfare or poverty status and on the neighbourhood in which they reside. The mean household size (9.6) in Dakar is significantly larger than in Nairobi (3.0) and Johannesburg (3.7). Regarding materials (permanent versus less permanent) used in the structure of housing units, there is not much difference between poor and non-poor households in Dakar's slums but in Nairobi's slums, non-poor are likely to live in housing units built with permanent materials compared to the poor households in the slum. In respect of the percentage of households that have access to both piped water and electricity and are constructed with permanent external walls, in Dakar slum there is no significant difference in the access of these facilities between the poor and non-poor households in the slum but in Nairobi's slums the poor households are worse off regarding the access to the facilities compared to the non-poor households in the slum.

*Rahman (2012)* in the study of slums in Bangladesh finds that majority of the households in the slum area are less than 100 square feet. The residential densities in the slums are 1000-2500 persons per acre. The houses have kutcha and semi-pucca structures and are single storeyed. The houses are mostly constructed of cheap materials such as plastic, polythene, tin, straw, bamboo, cane, etc. are makeshift type housing. The residents of the slum suffer from an identity crisis and eviction as there is no land tenure security and Government consider the slum settlements as illegal. Government fear more migration if legalizing and institutionalisation of slum area is done which would add to the burden of urban governance. The first priority of the slum dwellers is permanent land for shelter.

*Pramanik (2013)* in his study of squatter settlements in the Siliguri Municipal Corporation finds that majority of squatter or slum household of Lichubagan colony and Mazdoor colony in the inner city live in kutcha houses (54.17 percent). The houses are used either for residential or mixed purposes (residential and commercial). In the inner city majority of the houses of the squatter households were constructed with tin roof

(77.50 percent). The average number of room per households is 2.42 in the inner city as a whole. The average number of person per room is 2.34 in the inner city. Around 94 percent of the households in the peripheral slums (Rajibnagar colony and Shivrinar colony) have their own house. It is found that the majority of the household live in kutcha houses (50.83 percent) in the peripheral city. In the peripheral city majority of the squatter households use their houses absolutely for residential purposes (95.80 percent). Majority of the houses here are constructed with tin roof (95.83 percent). In the peripheral area as a whole the shelter deprivation considered as the average number of room per households was 2.09. Average number of persons per room which shows the crowding in the household is almost equal at about 2 in both the colonies and in the peripheral city as a whole. 21.67 percent of the households had shelter deprivation with more than three persons per room in the peripheral city. In the inner city 45.83 percent of households do not have any separate kitchen. 57.50 percent of the households in the peripheral city have separate kitchen. In inner city out of the total households having electricity connection, 72.50 percent had own connection. In the peripheral city around 77 percent of the households have electricity connection. Maximum numbers of the households have their own connection in all the colonies and in the peripheral city as a whole.

*Phillip and Premsingh (2014)* find in their study that the slum dwellers of slum area of Calicut Corporation live in poor quality and overcrowded houses.

*Hossain (2014)* states that in the slums of Bangladesh the common type of houses in slums are shacks (Jhupri), bamboo structured house, tin shed, chhai (made of fodder), semi-pucca (made of bricks, soil, mud and tin), kutcha fragile structure (made of soil, mud and tin) and dilapidated old buildings.

*Naveed and Anwar (2014)* in their study of slum in Sialkot, Pakistan find that household size was large as more than one fourth of total respondents stated that their household size was 11-13 members. 40 percent of the households had semi-pucca house type. Almost all residents had connection of electricity.

*Kundu (2014)* comments regarding housing projects taken up by the Indian Government that though the Rajiv Awas Yojana (RAY) has two basic components: one housing, and

two infrastructure and basic amenities, under the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) the balance between the two was not maintained. The programme for Basic Services for the Poor did not serve the poor instead it got transformed into multi-storeyed housing scheme which were not affordable by the poor. The author suggests that the cost of housing needs to be subsidised up to 50 percent and built up area of the houses must be between 180 and 200 square feet so that loan repayment for the poor households become feasible.

*Pani (2014)* reveals that urban situations can be influenced by happenings in rural areas and the study focuses on the experience of the city of Bengaluru. The workers of the garment industry who were mostly women lived in poor housing conditions. Vast majority of them did not own a house and only could afford to live in a rented one; the rented houses had cheaper sheet-roofed, more than four-fifth of these houses had more than two persons per room and 31 percent had more than three persons per room.

*Kamunyori (2016)* in the study of Nairobi Slum finds that the slum dwellers are the rural-urban migrants drawn to Nairobi in search of economic opportunities. The slum dwellers were relocated to Grogan A where they built temporary structures. The original residents revealed that they had to break down and hide their shelters every morning from the City Council before leaving for the Central Business District (CBD) and in the evening they would set up their shelters again. The squatters or slums were also relocated to Korogocho B after been displaced from Highridge and Parklands and from Kariobangi but unlike those of Grogan A plots were allocated to women family member. The allocation of plots gave a sense of permanency to the slum dwellers. The slum houses have planned layout with controlled housing design commonly known in Kenya as Swahili-style structure which is a U-shaped structure around a courtyard. In Korogocho slum the private sector been unable to meet the demand for low- cost housing for rural-urban migrants the chiefs and other civil servants using the power embedded in Chief's Act, 1998 issue Temporary Occupation Licences (TOLs). The structure was temporary and roofs of structures are advised by the chief to paint black to give the look of poverty and permissions have to be taken from the chief each time to

construct or repair any structure and fees are charged by the chief for such permissions. Thus this ‘de facto planning’ is motivated by rent seeking and self interest.

*Banerjee (2016)* in a study of slums of Kolkata finds that the houses in the slum are poorly lit and ill-ventilated. Majority of respondents, about 58 percent resides in pucca houses. 90 percent of the migrant families stay in a single room. Majority of the household lacks a kitchen.

*Mishra (2017)* states that in India there is shortage of 18.78 million housing units of which the economically weaker section (EWS) alone has shortage of 10.55 million units that is 56.2 percent of the total shortage, the low income group (LIG) has shortage of 7.41 million housing units or 39.4 percent of total shortage and above income group have a shortage of 0.82 million units or 4.4 percent of total shortage of housing units according to the Technical Group on Urban Housing Shortage, 2012-17 (TIG-12) that was constituted by the erstwhile Ministry of Housing and Urban Poverty Alleviation. Ten states (Uttar Pradesh, Maharashtra, West Bengal, Andhra Pradesh, Tamil Nadu, Bihar, Rajasthan, Madhya Pradesh, Karnataka and Gujarat) together have 76 percent shortage of urban housing. The poor are forced to live in the slums because of high land prices, which results in the unplanned and haphazard development. The challenges for development of the affordable housing are shortage of developed and encumbrance-free land, high cost of construction, absence of private sector participation, lack of viable rental market, home loans been inaccessible by the poor, long and cumbersome approval process, environmental clearance lack of clarity in building by-laws, and lack of popular acceptance of the technological innovations in low cost building material and construction practices. In order to make the mission to provide housing for all by 2022 in accordance with the mission of “Pradhan Mantri Awas Yojana-Urban” successful, good practices and performances in implementation of the mission need to be disseminated among various stakeholders.

*Goswami and Bhan (2017)* points out the fact that there are three parameters to be fulfilled to achieve the goal of ‘affordable housing for all by 2022’ in respect of Government of India’s Pradhan Mantri Awas Yojana which are Adequacy, Affordability and Viability. The first two parameters which deal with definition of

“low-income” households, the size and cost of an affordable house, the services and materials which define adequacy received due attention but the third crucial parameter which relates to the location of affordable housing that implies meaningful living in houses created or enabled by policy action received very little attention. The author also finds that the three aspects that constitutes viability for low income group are- a) linkages with employment and livelihood b) connectivity; which implies accessibility to public transportation facility and c) access to physical and social infrastructure i.e. schools, hospitals etc. The first aspect is of greater importance as no affordable housing policy will be fruitful unless it is addressed. Thus it is here where the importance of examining land acquisition to ensure affordable housing lies.

*Uddin (2018)* in a study of slums of Chittagong city, Bangladesh finds that more than one room in a single house is rarely found in slum areas. The houses are rented at high prices but are without ventilation. The majority of household has illegal and/or bypass electricity connection.

### **2.2.1 (b): Water Facility**

*Majumdar and Majumdar (1978)* in their study of slums in New Delhi find that there is insufficiency of water supply in the slum areas.

*Jha (1986)* in his study of slums of Bombay finds that water is a dearly available commodity for the slum dwellers in the city.

*Gill (1994)* has taken two slums from Bombay and Chandigarh for study. He also investigates that in both the slums there is an acute shortage of water. Although whole of Bombay faces water scarcity, due to high density of population in the slum and presence of merely 2-3 water taps the problem is acute in the slum; the residents have to employ at least one child or adult in each household to fetch water for daily use. Thus a lot of time and energy is spent in waiting for and then storing water. Water thus obtained is very precious and is thus stored for most essential needs, i.e. cooking, drinking, etc..

*Bhattacharya (1996)* in slums of Kolkata finds that scarcity of potable water is endemic. About 44 percent do not have any water tap and 54 percent household share one water tap with others at the ratio of one tap for one hundred persons.

*Karn, Shikura and Harada (2003)* also find in a study of urban poor in the city of Mumbai that unlike in other civic resident quarters, water tap connection in slums is generally given to a group of households to be shared in common. The water supply in slum and squatters is intermittent. Contamination of supplied water in the pipeline is also a problem.

*Priyadarshi (2007)* in slums of Delhi finds that the piped water is the main source of drinking water. One tap served around 500 people and long queue of women and children are a common sight in the slums. Water becomes scarce during the summer season.

*Mehta and Mehta (2010)* while commenting on the urban development that had taken place through the Jawaharlal Nehru National Urban Renewal Mission finds that in 2006, only 19 percent of the urban poor had house-level water connections as compared to 62 percent of the non-poor. A key problem in providing house level connections to the poor relate to the policy stance of the respective state government.

*Murthy (2012)* reveals that access to water in Mumbai slums generally depends on whether the slum dwelling was constructed prior to January 1, 1995 as stand post connections on meter measurements were given to residential structures in slum areas, which have come into existence prior to 1-1-1995. State and municipal governments refuse to provide basic services to slum communities located on central government land. Non-notified slums on central government land are in the worst position with respect to water and sanitation.

*Rahman (2012)* in the study of slums in Bangladesh finds that there is scarcity of pure drinking water in these areas. People receive water once a day for short duration (1to2 hours) and the flow of water is slow.

*Satapathy (2014)* states that though the slum households (74 percent) in India as per census 2011 have better access to tap drinking water compared to non-slum households (71 percent) this cannot be taken as better service delivery for urban poor. The

households having main source of drinking water within the premises is lower in slums compared to total urban households as it is found that in urban India among 71 percent households using tap water, 54 percent have access to drinking water source within the premises and 16 percent households walk 100 metres or more to collect water whereas among 74 percent of slum households using tap water, only 46 percent of slums households have access to tap water within the premises and 28 percent of slum households have to walk 100 metres or more to collect water.

*Rahman and Alam (2015)* in their study of slums of Dhaka, Bangladesh reveals that the highest proportion (41 percent) family use supply water for drinking and another major source is tube well water which is used by 28 percent family but 31 percent family used supply and tube well water both for drinking. 11 percent of family use canal or river water which is very dirty and it is not permitted for using.

### **2.2.1 (c): Sanitation and Drainage**

Filth and squalor borders the settlements and the slum community (*Majumdar and Majumdar, 1978*).

*Cousins and Goyder (1979)* in a study of slums in Hyderabad find that 33 percent of the sample respondents are without most of the basic services such as latrine, drainage and bathroom facilities.

*Rao (1990)* in a study of slums in Pune opines that the general environmental condition in the slums was very miserable while sanitation and latrine facilities were thoroughly inadequate which created serious health problems in the slums themselves as well as in the localities nearby.

In a study of two slums from Bombay and Chandigarh, *Gill (1994)* finds that there are no toilets and bathrooms and people young and old, males and females use the roadsides as toilets. In monsoons their belongings are destroyed by water.

*Ghosh (1995)* in his study of Bankim Palli bustee in Calcutta the bathrooms find that most of the inhabitants took bath in a nearby pond. The pond was also used for washing clothes and utensils. The people of the bustee used community latrines which sometimes overflowed due to choking. The drains were open drains and were under

constant threat of flooding during the monsoon. There was no proper system of storage and disposal of garbage; the garbage was not cleaned regularly.

*Mohapatra and Das (1998)* in a study of slums in Shillong, reveals that majority of slum households use common latrines built by municipal authority.

*Karn, Shikura and Harada (2003)* also find in a study of urban poor in the city of Mumbai that toilet is one of the most serious and common problems among all urban poor. Private toilets attached to dwellings are mostly does not exist in slum and squatters. A large portion of population practice open defecation in nearby open spaces and drains. Demand for public toilet always surpasses the supply. Solid waste disposal in slum is a problem as refuse bins are unavailable and lack of awareness about the garbage disposal among slum dwellers.

*Priyadarshi (2007)* in a study of slums of Delhi reveals that water gets stagnated in the slums and is the main source of inconvenience. Garbage disposal system is not good and the situation is very grim regarding municipal cleaning of garbage.

*Gupta, Arnold, Lhungdim (2009)* reveal that the accessibility to proper sanitation facility is much worse in slum areas than in non-slum areas. In Chennai, Delhi, Mumbai, and Kolkata, not even one out of every four slum households use improved toilet facilities. About one-third to one-half of poor households in Delhi, Meerut, Indore, and Nagpur practice open defecation.

*Das, Khara, Giri and Bandyopadhyay (2012)* in their study of slum area of Howrah Municipal Corporation, West Bengal find that the drains are very dirty, unhygienic and undeletable and need renovations, the sewerage system need improvement. The open ground and railway tract is used for sanitation purpose.

*Murthy (2012)* states that slum-dwellers in Mumbai mostly rely on poorly maintained public toilets that are often unhygienic. The rates of access to water and sanitation are worse in non-notified slums than those of notified slums. Many toilets are not connected to water lines so the slum dwellers are forced to rely on more expensive sources of water like those brought in from tanker trucks. Electricity is not available in many toilet blocks and hence they are not used at night. Approximately 5 percent of slum-dwellers defecate in the open due to long waiting time and unhygienic conditions.

*Rahman (2012)* in the study of slums in Bangladesh the scarcity of space or minimum level of per capita living space in the slum household and also insecurity of tenure are the main hindrances for construction of latrines and water supply in the individual slum households even if the slum dwellers can afford to provide for themselves these basic facilities. Provision of water taps inside the community latrine is necessary but considering the water and sewerage problems in the Dhaka city it is beyond imagination in these illegal settlements. There are no waste management available in the slum area.

*Pramanik (2013)* in his study of squatter settlements in the Siliguri Municipal Corporation finds that in the inner city personal sanitation facility is available for 61.67 percent of the household and 38.33 percent households use community sanitation. In the peripheral city about 91 percent of the households have personal toilets and remaining 9 percent households lack in proper sanitation. In the inner city area households having access to public dustbin for garbage disposal is 100 percent. In the peripheral slum area 78.33 percent of the households have access to the corporation's dustbin for garbage disposal and remaining 21.67 percent do not have such facility, keep their garbage in the nearby open space or streets etc. In the inner city surface pucca drainage facility is available for majority of the household (90.83 percent) due to locational advantage. In the peripheral city 65 percent of the squatter households do not have any drainage facility.

*Dijk, Etajak, Mwalwega and Ssempebwa (2014)* in their study of slums in Tanzania and Uganda state that unimproved toilets dominate. These toilets are not safe and hygienic and are likely to spread diseases.

*Hossain (2014)* reveals that about 80 percent of the slum population in Bangladesh has no sanitation facilities. Unsafe, unhealthy and open space toilets are available in the slum as reported by slum census of Bangladesh. There is no fixed place for waste disposal in the slum and 57 percent of households dispose of wastes into the water body.

*Rahman and Alam (2015)* in their study of slums of Dhaka, Bangladesh finds that majority (59 percent) of the children are using non-sanitary latrine.

*Bose and Ghosh (2015)* in their study of slums of Kolkata reveal that condition of sanitation facility in the slums is miserable. 89.58 percent of the households use shared toilets. The ratio of the number of latrines to number of residents is very steep and this situation creates chaos in everyday life.

*Banerjee (2016)* reveals that the private toilet facilities are almost absent in the slums of Kolkata. Only 11 percent households have separate toilet/bathing facilities within their homes, the rest of the households use the public facilities.

*Zaman, Goswami and Hassan (2018)* reveals that slum dwellers faced problems due to the unhygienic toilet facilities, pathetic situation of garbage management, disposal and drainage system, open and uncovered domestic wastes that was hazardous to health, unplanned construction of shops, houses, roads and drains which affected the environment of the Guwahati city.

*Uddin (2018)* reveals that in slums of Bangladesh most of the household share one toilet facilities with other families; there are cases where 10–12 families who use one toilet. Human waste gets washed into water bodies during the rainy season which causes viral and communicable diseases in the slum areas. Access to improved water and sanitation facilities within slums is comparable with or less than that of rural areas.

*Giribabu, Bharadwaj, Sitiraju, Burra, Rao and Reddy (2019)* mention that in Bangalore slums the area within 50 m of railway tracks acts as a universal commode for open defecation. Open defecation in urban areas will hinder achievement of targets of United Nations Sustainable Development Goals (SDGs) aimed to make cities resilient and sustainable.

### **2.2.2: Employment and Income**

*Jha (1986)* in a study of slums in Bombay finds that the slum dwellers are the workers whose services are very essential for the existence of the city. The monthly income per family and the per capita income of the slum dwellers were low. The slum dwellers are essentially the members of the working class and majority of them live below the poverty line.

*Dhadave (1989)* in a study of slums in Karnataka finds that slum dwellers are unemployed or under-employed most of whom are unskilled workers in the informal sector as it requires less skill, minimum education and less capital and their occupation do not yield sufficient income. Per capita income is also low. The reasons for this economic situation in slums are (a) lack of assured or regular income and (b) large number of dependants in the family of the earning members.

*Mitra (1994)* finds that in a majority of cities in India persistence of informal sector, urban poverty and slums are most likely to go together. Open unemployment and informal sector employment tend to lower income per household.

*Agnihotri (1994)* in a study of slums in Madhya Pradesh finds that slums with high density of population have the lowest level of living. Slums are the main pockets of poverty in the city. The inner-city slums have more poor population than the peripheral slums. Slum dwellers those who are skilled are able to live in the peripheral part of the city while slum dwellers those are underemployed depend upon the city-core. The poorest people live in the most crowded slums.

*Gill (1994)* has taken two slums from Bombay and Chandigarh for study and investigates that the people in the slum are either domestic servants or engaged in the household industry.

*Jha (1995)* finds that in the slums of Bombay the major portion of slum labour force is engaged in the unorganized or informal sector of economic activity. The incomes in this sector are lower than that in the formal sector and also tend to stabilize at low levels and remain stagnant thereafter.

*Halder (1995)* based on a study entitled –Slum Dwellers of Calcutta- A Socio-Economic Profile 1989-90”, conducted by Calcutta Metropolitan Development Authority finds that though majority of slum dwellers are engaged in informal sector occupations, the income level of the casual workers was the lowest while the highest earners fall in the clerical group.

*Parekh (1995)* in the study of slums of Calcutta Municipal Corporation area finds that majority of the slum dwellers were unemployed consisting of housewives, students, children in additions to unemployed category.

*Ghosh (1995)* finds that the inhabitants of the bustee of Kolkata migrated from rural areas and working in informal sector.

*Roy (1995)* in a study of Calcutta slums finds that the household heads who had formal sector occupations earned more than the rest, mainly the younger generation who worked in the informal sector.

As per research studies of slums of Bangalore by *Rao B. (1995)* it was found that majority of total households in the city earn low income. Unemployment in slums is marginal. The main cause of worry to the slum dwellers is the seasonal and informal employment as it disturbs the regular and dependent flow of income to the slum families.

*Bhattacharya (1996)* in a study of the socio-economic condition of maid servants in the slums of Kolkata finds that majority earn their (maid servants' husbands) livelihood by working as unskilled labourers or day labourers. The next occupation in which majority of slum dwellers are employed is that of artisans. The maximum concentration of maid servant (kajerlok) is between 15 and 50 years.

*Kumar and Aggarwal (2003)* in the study of employment situation in the slums of Delhi finds that the women are in a disadvantageous position in terms of their economic status as the unemployment rate for men (15 years and above) is only 21.85 percent but for women it is high as 91.40 percent. The highest mean income is for self owned tea-shop owner and lowest income group is that of petty traders, egg sellers, fish sellers, football seller, maize sellers, etc.

*Singh (2005)* in her study of dietary profile of pre-school children of slum dwellers of Shillong city of Meghalaya finds that majority (57.5 percent) of the mothers of the children were doing business.

*Davis (2006)* mentions that informal survivalism is the new primary mode of livelihood in slums. There is absence of formal contracts, rights, regulations and bargaining power in informal employment and petty exploitation is prevalent. The per capita earning diminishes in the informal sector with the entry of new entrants to this sector. Increasing competition in the informal sector decreases social capital and solidarity

which is essential for the poor to survive. In the informal sectors employment of child labour is found.

*Priyadarshi (2007)* in a study of slums of Delhi finds that the majority of slum dwellers are contract workers or daily wage earners. The contribution of manufacturing sector is higher in the slums.

*Survey of Child Labour in Slums of Hyderabad: Final Report (2008)* states that in slums of Hyderabad, about half of the slums did not have any child labour (any person less than 18 years of age involved in physical work with or without pay) within the age group of 5-14 years. In the age group of 5-14 years, the percentage of male child labourers was higher than that of girl children. In notified slums the prevalence of child labour was lower. Slums located in close proximity to factories, workshops, construction sites etc. had abnormally high proportion of child labour which reveals that the high percentage of child labour did not depend on the size of the slums but on proximity of slums to such sites.

*Archer (2009)* in a study of slums in Bangkok, Thailand finds that most common occupation of the slum dwellers are of self-employed vendors either ambulant or selling directly from home. A large proportion of women is housewives or earns extra income by taking on jobs of sewing. Office workers are rarely found.

*Das, Khara, Giri and Bandyopadhyay (2012)* in their study of slums of Howrah Municipal Corporation, West Bengal finds that the slum dwellers have migrated from rural area and do not have proper educational and technical eligibilities to work as industrial labour therefore they work as lower division labourer or thika labourer. Some slum dwellers are working under the ‘100 working days programme’ while most of them are unemployed and jobless.

*Rahman (2012)* in the study of slums of Bangladesh finds that the largest population of the slums of Dhaka constitute of working age adults. A large number of adults are unemployed. The slum dwellers mostly work in the urban informal sectors. Kids earn some extra money by working as bus/auto helpers and scavengers known as ‘tokai’. The monthly income of the slum dwellers ranges from 5000-12000 taka (equivalent to around 38-92 pounds sterling).

*Floro and Swain (2013)* in their study of slum communities in Bolivia, Ecuador, Philippines, and Thailand shows that although a high proportion of men and women in urban low-income households are employed, their resources including earnings are often insufficient to deal with shocks and they develop their own strategies to deal with the problems that governments have neglected or have addressed in a haphazard or problematic fashion.

*Goswami and Manna (2013)* in their study of slums of Raipur city state that the slum dwellers get entangled in the vicious cycle of low education, low skills, high exploitation web and they do not get an opportunity to upgrade their skill to secure better jobs in the formal market. There is no consolidation of their working status and they practically do not get any increment in spite of long association with the owner which further degrades their standard of living and make them inclined to immoral and illegal practices.

*Pramanik (2013)* in his study of squatter settlements in the Siliguri Municipal Corporation finds that in the inner city in the formal and informal sector taken together, majority of the workers were engaged in self employment (43.83 percent), followed by salaried (29.79 percent) and casual employment (26.38 percent). Whereas in the peripheral slum in case of formal and informal sector employment as a whole, majority of the workers in the peripheral were engaged in casual employment (36.96 percent), followed by self (29.79 percent) and salaried employment (25.54 percent).

*Hossain (2014)* reveals that the slum dwellers of Bangladesh are employed in the low wage informal sectors. Only 5.5 percent slum people get low wage job in the formal sector. About 63.12 percent of the slum populations are working where majority (65.53 percent) are male, and 34.47 percent are female respectively.

*Rahman and Alam (2015)* find in their study of slums in Dhaka, Bangladesh that the children's family monthly household income are not enough for their living, accommodation, foods and others. The poor amounts of monthly income are affecting their health, sanitation and nutritional status.

In a study based on slum in Bangladesh *Mahmood, Essa and Jahan (2015)* find that the income level is very poor in the slums so as the standard of living.

*Bose and Ghosh (2015)* in their study of slums of Kolkata find that the average monthly family income is Rs. 8,329.17.

*Bakibinga, Ziraba, Ettarh, Kamande, Egondi and Kyobutungi (2016)* in their study of urban slums of Nairobi reveal that among the slum dwellers highest proportion, 33.6 percent are in business, 30.9 percent are unemployed, 24.4 percent are casual workers and 11.1 percent are salaried.

*Banerjee (2016)* in a study of slums of Kolkata finds that petty manufacturing is the dominant source of employment for male migrants to the slum. The female migrants to the slum have two main avenues of employment: manufacturing and work in private households as domestic helps and other services. Migration took place for the purpose of employment, especially for men. 90 percent of the women migrants to the slum moved in the city for marriage purposes and for family reunion. The migrants are concentrated in the urban informal sector. There is a major increase in self-employment of the migrants, both men and women. The migrants in the slum area experience an increase of work opportunities in the city, but these slum dwellers undergo several difficulties in their working and living condition.

*Kamunyori (2016)* in the study of Nairobi Slum states that unemployment is the second highest concern after insecurity in the slums of Korogocho in Nairobi and other researches find that youth unemployment is high in Korogocho; among adults of age 18 years, above 3.1 percent are salaried, 26.3 percent are earning income through businesses, 38.1 percent are engaged in casual employment and about 31 percent are economically inactive. The crime rate is high because of unemployment. The youth are given jobs related to waste management which includes rubbish collection, liquid waste collection, street-sweeping and emptying full pit latrines. They are sometimes hired to provide transportation back-up in case pregnant women in labour needs to go to the hospital in the middle of the night. Some go to the dumpsite and work with the waste pickers to earn money..

*Uddin (2018)* in a study of slums of Bangladesh finds that the slum dwellers are engaged in jobs in informal sectors due to scarcity of employment opportunities and the income earned is also low. The highest proportion of the slum dwellers are engaged as

rickshaw pullers and maid/ home servants. Since the urban informal sector absorbs most of the urban labour force and informal economy workers earn far less than in the formal economy the slum dwellers are trapped in a low-skilled, low-income equilibrium and their wages are at near-subsistence levels due to continuous migration from rural areas.

### **2.2.3: Consumption and Expenditure**

*Venkatarayappa (1972)* in his study of slums in Mysore City investigates that the people of the area spend a good portion of their income on religious festivals and ceremonies. The expenses on intoxicants go beyond their income. The filthy environment of the slum area causes contagious diseases which increases the medical bill. All these factors force the slum dwellers to take loans from moneylenders. The expenses the slum dwellers incur on the education of their children is very little when compared with the expenses they incur on drinking, gambling, visiting theatres and religious matters.

Similar facts have been investigated by *Majumdar and Majumdar (1978)* in their study of slums in New Delhi. The inter-seasonal and intra-seasonal fluctuations in the incomes and expenses of day labourers are high. Among the food expenditure highest proportion is spent on cereals. For clothing, the expenditure increases if they do not get old clothes for the adults and uniforms for school children from the school. Though education is free there are some incidental costs. Another item is the expense on recurring religious festivals. There is expenditure on addictions. There is burden of debt for many families.

*Jha (1986)* in his study of slums of Bombay reveals that the slum dwellers consume wheat, rice, dal and vegetables. They cannot afford to consume milk, eggs, fruits etc. regularly because of their low income. The slum dwellers cannot afford a balanced diet. Most of the children suffered from malnutrition.

Regarding the expenditure pattern of the slum dwellers *Dhadave (1989)* in a study of slums in Karnataka states that greater part of the household income is spent on essential items such as food and clothing and very little amount is spent on education, health and

housing. They spend the entire amount they earn daily. The financial situation is not favourable for some kind of thrift or planning.

*Srikar and Majumdar (1995)* in their study of bustee of Calcutta Municipal Corporation find that the food intake of the bustee children is very low. The cereal intake was about 60 percent of the recommended daily allowance (RDA), green leafy vegetable was less than 50 percent of RDA, milk products around 50 percent, and fats and oils less than 50 percent of the RDA. Consumption of roots and tubers and pulses were above the RDA.

*Ghosh (1995)* in his study of bustee in Calcutta finds that coal-burning chullah was commonly used for cooking in the bustee settlements.

*Parekh (1995)* in the study of slums of Calcutta Municipal Corporation area finds that kerosene was most commonly used as fuel.

*Singh (2005)* in her study of dietary profile of pre-school children of slum dwellers of Shillong city of Meghalaya finds that among the preschool children maximum deficiency of protein which was 18.6 percent was observed in the age group of 4 to 6 years, maximum deficiency in energy (17.9 percent) was found in the age group of 2 to 4 years and maximum deficiency of fat content was 57 percent found in the age group of 2 to 4 years. Majority of mothers of preschool children had poor knowledge regarding nutrition.

*Priyadarshi (2007)* in a study of slums of Delhi finds that LPG is used by majority of slum households because of convenience in cooking.

*Rahman (2012)* in the study of slums of Bangladesh finds that most of the slum dwellers spend all their income on food and basic services and they also take loans from their neighbours or from local cooperative societies to cover their additional needs.

*Goswami and Manna (2013)* in their study of slums of Raipur city reveal that the slum dwellers most frequently consume relatively cheap food items like potatoes, fresh vegetables, sweets and eggs. The least frequently consumed items are butter, soft drinks, milk and ghee as these items are relatively expensive.

*Pramanik (2013)* in his study of squatter settlements in the Siliguri Municipal Corporation area finds that in the inner city and peripheral city majority of the slum household use wood as a main fuel source for cooking. The mean value of the physical

assets (the economic resources which help the poor to meet basic needs, generate income and reduce exposure to risks) among the households as a whole is about Rs. 5143. Among the households in the peripheral city the mean value of physical assets is Rs. 11647.94. It is found that not all the squatter households are poor in terms of the value of the physical assets. The mean expenditure of total food items of the household in the inner city was Rs 2742.92 and the mean expenditure on total non-food items was about Rs. 1728 in the inner city squatter settlements as whole. In the peripheral city the average expenditure of the households on total food items is about Rs 2402.50 and the mean expenditure on total non-food items is around Rs. 2086.

*Hossain (2014)* states that in the slums of Bangladesh about 65 percent of total income of slum households is spent on food items. 96.02 percent households rarely had more than two meals in a day. The food items usually consumed are of lowest quality and cheapest price. Nutritious and protein rich food are rarely consumed. The slum dwellers usually use dry straw, cowdung, dry leaves, husk, wood, gas, etc. as fuel and only 44.6 percent of slum households have access to gas for cooking.

*Rahman and Alam (2015)* find in their study of slums in Dhaka, Bangladesh that 96.07 percent of the slum children had eaten cereal food groups, especially rice daily (20-21 times per week). The slum children's intake of energy is less than their requirement.

*Bose and Ghosh (2015)* in their study of slums of Kolkata find that the average expenditure on food is Rs. 4697.90. Marginal Propensity to Consume (MPC) on food out of income is just 0.35 which implies that food is not necessarily the primary item of expenditure even among the slum people nowadays. The average monthly family expenditure on education is estimated to be Rs. 1185.96. LPG use is commonly used in the slums. Other types of fuels used are Kerosene and Coal. Majority of slum dwellers have own electricity connection and have their own meter. Mobile density is high; average no. of mobile phones per family is 1.67, a figure greater than 1.

*Pramanik (2015)* finds that considering the poverty line recommended by the Planning Commission for 2009-10 in terms of per capita consumption expenditure of Rs. 859.50 in urban areas in Siliguri Municipal Corporation area it is found that all the squatters in the inner city squatter settlements were living below poverty line. On the other hand, all

the squatters in the peripheral city are living above the poverty line. Further, comparing the monthly per capita Income (MPCI) with the international poverty line US\$ 1.25/day, it is seen that all the households in both the squatter settlements will fall under absolute poverty.

#### **2.2.4: Status of Health**

*Jha (1986)* in his study of slums of Bombay finds that major illnesses prevailing in the slum area are cough, cold, fever, tuberculosis and rheumatism whereas other predominant diseases are jaundice, stomach problem (meaning chronic dysentery and diarrhoea), asthma and typhoid. Majority of slum dwellers prefer Allopath. The slum dwellers have very little capacity to pay for health care and their consciousness to health is also at a low level. Hospitals are far away and slum dwellers go to those doctors, Vaidyas, Hakims and Homeopaths whose dispensaries are located mostly around the slum area.

*Rao (1987)* in the study of slum dwellers in Hyderabad has found that lack of avenues and finances is the main bottleneck in availing of the better health facilities.

*Dhadave (1989)* finds that in Karnataka majority of slum dwellers (83.5 percent) did not adopt family planning methods.

*Parekh (1995)* in the study of slums of Calcutta Municipal Corporation area reveals that the majority of slum dwellers delivered their children in the Government run institutions. The impact of family planning was unsatisfactory in the bustees.

*Ghosh (1995)* in his study of bustee in Calcutta reveals that most of the bustee dwellers believed in modern allopathic treatment and they got themselves treated by professional doctors either at private clinics or at a hospital in case of illness. Some women of the bustee also went to a Maulavi at a masjid or a Sadhubaba at a temple, when the patients did not recover from illness quickly. For serious illness the bustee dwellers went to Government hospital for treatment and for minor illness they visited the private doctor who had clinic in a nearby locality.

*Rao B. (1995)* in Bangalore slums finds that the monthly expenditure on health by slum inhabitant is low and varies between 3.6 percent of income to 0.4 percent of income.

*Das and Shah (2001)* in a study of slum population of Baroda reveals the poor condition of health of women in these slums. Insecurity relating to regular income, food, shelter, access to health care and other essential services, poverty, exploitation and abuse in the treatment of women, have an adverse impact on the health of urban poor women. About 36 percent of the deliveries are taking place at home. Most of these home deliveries (87 percent) are attended by untrained dais and relatives. Among the institutional deliveries, private clinic is preferred over the government facilities. In respect of family planning, the provision of information and counselling regarding various methods of contraception, particularly spacing methods is insufficient.

*Chatterjee (2002)* in a study of environment and health issues in Hyderabad opines that the urban poor involved in the process of collection and disposal of waste are exposed to health hazards. Health effects of waste management and use of contaminated water lead to loss of productivity among the poor.

*United Nations Human Settlements Programme (2003)* in “The Challenge of Slums Global Report on Human Settlements 2003” reveals that ill health in the slum areas is mostly associated with poor sanitation, lack of waste disposal facilities, the presence of vermin, poor indoor air quality due to poor ventilation and the use of cheap fuels that emit particulate matter.

*Hatekar and Rode (2003)* finds in a study of malnourishment among slum children in Mumbai that at the minimum 750 children in the city die from undernourishment every year.

*Pande (2005)* in a study on health in urban slums in Delhi stated that proximate causes of ill health in urban slums are inadequate basic services, lack of information regarding proper state owned and managed medical benefits, poor service and bad behaviour at Government hospitals, malnutrition and lack of financial resources.

*Davis (2006)* states that in Mumbai, slum death rates is 50 percent higher than in adjoining rural districts. The problems of both underdevelopment and industrialization are the causes of diseases of slum dwellers. Due to underdevelopment they suffer from

infectious diseases and malnutrition while industrialization causes them to suffer from chronic and social diseases. Majority of deaths result from infections and parasitic diseases.

*Priyadarshi (2007)* in a study of slums of Delhi finds that slums did not have any health centres in the neighbourhood. The services provided by the health centres were unsatisfactory. Non-availability of treatment facility in the slum is also a reason for slum dwellers not getting treated of their ailments. In the age group of 60 years the risk of ailment or morbidity is high followed by the age groups 40-59, 0-14 years and 15-39 years and health problems were much higher among females rather than males in the slums. Inactivity due to illness in the slums varies between 0-10 and 10 - 20 days. A close relation between determinants of health care services and the expenditure and purchasing power of food, housing, education modern household necessities etc. is found.

*Chatterjee (2008)* in her study of slums of Delhi find that morbidity rate is lower among working women than nonworking women in both slum and non-slum areas. In slums prevalence rates of chronic diseases is much lower than non-slum areas for both working women and non-working women. Chronic disease like high blood pressure is common in both slum and non-slum area. There is no case of diabetes among the working women of the slum area as physical labour is very high among them. The working women in both slum and non-slum area are averse to taking medications. Prevalence rate of acute illness is much higher in slums than in non-slum areas and among all acute illnesses cold related illness is the most common illness. In all slums and non-slum areas private clinics are major source of treatment for working women. In slums very few women take health measures in comparison with non-slum areas.

*Gupta, Arnold, Lhungdim (2009)* in eight large Indian cities (Chennai, Delhi, Hyderabad, Indore, Kolkata, Meerut, Mumbai, and Nagpur) find that slum children generally have poorer nutritional status than non-slum children. Except in Kolkata, anaemia among children is more widespread in slum areas than in non-slum areas. At least 4 in 10 women are anaemic in both slum and non-slum areas in every city. Slum children generally have poorer nutritional status than non-slum children. The Total

Fertility Rate (TFR) is higher by 0.2-0.5 children in slum areas than in non-slum areas in every city except Nagpur. The contraceptive prevalence rate is lower in slum areas than in non-slum areas. Vaccination coverage is mostly higher for children in non slum areas than in slum areas for almost every vaccination. The prevalence of diabetes is mostly higher among the non-slum population than the slum population. Among women, knowledge of AIDS is lower in slum areas than in non-slum areas.

*Pramanik (2013)* in his study of squatter settlements in the Siliguri Municipal Corporation area finds that the family size is about 6 and this indicates that the family planning measures are ineffective in this area. In spite of close proximity to the public health institutions home deliveries are taking place in the slum. Around 45 percent of the delivery was institutional, whereas more than fifty percent of the non-institutional delivery (around 54 percent) took place through untrained dais in all the squatter colonies and in the inner city as a whole. Due to customs and traditions of the family systems, monetary problems etc. the delivery was carried at home. In the peripheral city 60.94 percent was institutional as against 39.06 percent non-institutional delivery.

*Pati, Kadam and Chauhan (2014)* in their study of slum located in the Bhubaneswar city of Odisha state in India find that seventy two percent were found to practice hand washing by soap after defecation. The lower level could be due to non availability of soap and decreased perceived susceptibility to diarrhoea. The study points out that there is need to educating teachers to inculcate hygiene behaviour among the students in order to prevent disease like diarrhoea.

*Rahman and Alam (2015)* in their study of slums in Dhaka district opine that higher the children monthly household income lower is the level of malnutrition. The pitiable socio-economical, demographical condition as well as poor sanitation and lack of hygiene practice are affecting nutritional status and health of the slum children in Dhaka, Bangladesh.

*Haregu, Wekesah, Oti, Egondi and Kyobutungi (2016)* in their study of urban slum population of Nairobi, Kenya find that among the five major Non-Communicable Diseases (NCD)- Diabetes, Hypertension, Stroke, Heart Disease and Heart Attack and four NCD risk factors- Unhealthy diet, Insufficient physical activity, harmful use of

alcohol and tobacco use, majority of the urban poor adults have relatively low prevalence of the three key NCD risk factors (insufficient physical activity, harmful use of alcohol and smoking) but prevalence of unhealthy diet was high (57.2 percent). Majority of the slum dwellers (64.2 percent) perceived that they had low risk of getting each of the five NCDs. Among those with multiple NCD risk factors only 12 percent had above low risk perception. The knowledge about NCDs and NCD risk factors is generally low among the urban slum dwellers of Nairobi even though magnitude of NCDs is increasing.

*Uddin (2018)* in a study of slums of Bangladesh observed that most of slum dwellers have suffered either one or more diseases from diabetes, hypertension, anaemia, acute diarrhoea, skin infections and acute respiratory syndrome and physically handicapped. The deficiency of safe drinking water is a major cause of illness and mortality.

*Ekenze et al. (2019)* find that the prevalence of stroke in an urban slum in Enugu metropolis in Nigeria was 12/1000 which did not vary between males and females and it is higher than the current studies in Nigeria. Hypertension, diabetes and low levels of education are the major risk factors for stroke. The prevalence of stroke is higher among people with poor socioeconomic status. Poor health facilities, lack of access to care, poor health infrastructure (with few if any functional emergency stroke services) as well as lack of neurologists/stroke specialists, high cost, low health insurance coverage in the country and inherent risky cultural practices/beliefs among the urban poor result in the stroke burden in urban slums.

*Jaya (2019)* states that urban health inequities result from interplay of factors that operate at multiple levels and this affect the urban poor more. Health inequality is a result of poor urban governance at the national, regional and local level. Urban service delivery components of health system, other public service delivery systems along with urban living environment, create urban health inequities. Weak staffing patterns, unavailability of services, poor urban infrastructure and lower standards of care are the result of failure to identify the informal slums by the formal health system. Health inequality is also caused by poor financial condition of the urban poor which limits their purchasing ability, cultural barriers, lack of knowledge which results in lack of access,

lack of awareness and social exclusion. In India the continuous rise of population together with health inequality throws challenge to the urban health system and this affects the urban poor more. Therefore urban slums should be looked like a separate entity with specific determinant foci.

#### **2.2.4 (a): Incidence of Communicable Diseases**

*Majumdar and Majumdar (1978)* find that tuberculosis is quite common in slums of Delhi. Unsanitary condition and congestion aid the spread of tuberculosis. Children suffer from worm and various other diseases.

*Dhadave (1989)* finds that the common diseases from which the slum dwellers in Karnataka suffer are malaria, diarrhoea, dysentery and other intestinal disorders, fever, cough and cold, typhoid and influenza. Majority of the families which are suffering from one or the other disease could not get proper treatment because of poverty or paucity of money.

*Gill (1994)* states that in slums of Bombay the havoc brought about by flood waters in the shape of diseases like jaundice, fever, gastroenteritis etc., was great.

*Biswas, Biswas and Mukhopadhyay (1995)* in their survey of slum of Eastern Calcutta found that incidence of diarrhoea and Acute Respiratory Infections (A.R.I.) was high among children. The important areas of action for creating a healthy life in the slum area are availability of safe drinking water, sanitary measures of excreta and refuse disposal and improvement of dwelling and outdoor environment.

*Bhattacharya (1996)* finds in slums of Kolkata that the diseases like pneumonia, diarrhoea, gastro-intestinal and typhoid which is related with very bad physical condition of living and measles and skin diseases are prevalent. Pneumonia causes for more deaths than any other communicable diseases. Dysentery is the chief disease causing deaths among the children of 1-7 years of age group.

The findings from the study by *Mohapatra and Das (1998)* of the health condition of slums in Shillong reveals that in all the localities the prevalent diseases are diarrhoea, common cold and cough and fever. Inadequate and poor quality of potable water

supplied to the area is main cause of prevalence of diarrhoea. The incidence of cold, cough and fever could be due to environmental reasons.

*Lobo and Das (2001)* find in a study of slum in Surat that the common sicknesses in the slum are malaria, cold, headache, cough, fever and problems related to the eyes.

In a study of the living environment and health condition of urban poor in the city of Mumbai by *Karn, Shikura and Harada (2003)*, the authors find that one-fourth of sickness is accounted for by water-related diseases. Tuberculosis and asthma also appears severe among chronic diseases.

*Khairkar (2005)* reveals in a study of migrants in a slum of Pune that young migrants are the most vulnerable group of getting infected with HIV/AIDS.

*Priyadarshi (2007)* states that the slum dwellers in Delhi suffer most from viral fever. The unhygienic conditions, polluted water and bad sanitation and cleanliness cause gastroenteritis, diarrhoea and dysentery. Tuberculosis is related with low income households.

*Dana (2011)* in slum of Dhaka, Bangladesh finds that diseases such as diarrhoea and vomiting, malaria, pneumonia, skin problems (scabies, ringworms) and common colds/coughs are prevalent. The slum dwellers are aware that the poor unhygienic living condition are the causes of the diseases but their poverty hinders the people to live in better places. The expenditure on their illness imposes financial burden on the slum dwellers as money and day's labour is lost and hence their day's income. The money spent on the treatment of the diseases has other implications on the provision of other basic necessities such as food which becomes a vicious cycle of poverty-illness-poverty.

*Murthy (2012)* states that in Mumbai, slum dwellers mostly have limited access to water and sanitation services and which results in a high prevalence of waterborne diseases. Slum dwellers regularly experience outbreaks of diarrheal diseases, leptospirosis, malaria, and dengue. Due to lack of access to safe water and sanitation there is high prevalence of hepatitis A and E. Skin diseases such as scabies is a main cause of morbidity for children that result from unhygienic conditions and lack of personal hygiene.

*Hossain (2014)* states that in the slums of Bangladesh about 50 percent of total slum children are found sick due to different types of water-borne diseases; 67 percent children suffer from diarrhoea and cholera. High density of population, filthy environment, polluted water, and poor sanitation increases the risks of waterborne and airborne diseases, such as cholera, diarrhoea, pneumonia, influenza and tuberculosis.

*Naveed and Anwar (2014)* find that the frequent illness that the slum dwellers of Sialkot faced was diarrhoea and the second was fever. The chronic diseases the slum dwellers suffered from are tuberculosis and hepatitis.

*Rahman and Alam (2015)* in their study of slums in Dhaka district finds that the common diseases the children of the slums are suffering are fever, diarrhoea, cold and cough, pneumonia, skin disease and jaundice. 75 percent of the children are suffering from disease which is related with the bad quality of drinking water. 79 percent of the children are suffering from disease related to poor quality of household used water. 75 percent and 80 percent children suffer from disease related with human waste disposal and household waste disposal respectively.

*Sawase, Acharya and Shinde (2016)* in their study conducted among Tuberculosis (TB) patients diagnosed in recent time with TB and taking ‘Directly Observed Treatment’ (DOT) in Urban Health Centre, located in Malvani slums in Mumbai find that 76.9 percent of the patients were in economically productive age group (15-45 years). The disease is highly prevalent among males compared to female. 33.8 percent slum dwellers faced poor accessibility to take DOT from the existing DOT centre due to either clash with work hours or because of long distance or the patients were physically handicapped and they preferred to take DOT from private practitioners in their area.

*Hoseinpoor, Karami, Mohammadi and Soltanian (2017)* finds in a poor urban settlement of Goran country in Iran that 0.44 percent people are identified as Tuberculosis (TB) suspects of which 60.6 percent are male and the median age is 42 years.

*Ziraba et al. (2018)* find that in Korogocho and Viwandani informal settlements in Nairobi, Kenya sexual behaviours that are known to predispose adolescent girls and young women (AGYW) to HIV acquisition are prevalent and increase rapidly from a

young age. Peer influence, parental support, neighbourhood influences, and education are the social protection measures which are urgently required to prevent HIV among AGYW.

*Zaman, Goswami and Hassan (2018)* states that seven out of every ten children die due to diarrhoea, acute respiratory infections, malnutrition, and measles.

*Adhikari et al. (2019)* reveal that in Nepal, one fourth of the total population (25.16 percent) is under the poverty line and tuberculosis has strong relationship with wealth quintile, smoking and alcohol habits, housing standards and occupations. Though NTP (National Tuberculosis Program) has initiated targeted intervention among vulnerable population like refugees, migrants, internally displaced population, prisoners, slums, malnourished children and ANC (Antenatal care) mothers, it lacks mechanism to track and address the human right violation issues faced by tuberculosis patients.

#### **2.2.4 (b): Health Facilities and Access to the Health Facilities Provided by Government**

*Phadke (1970)* comments regarding the problems of poor quality of community health service and also poor health services rendered in schools in urban area to the urban children. The excessive pressure on community health services, inadequate staff and resources for treatment lead to poor quality of service. School health services suffer from shortage of medical personnel, poor facilities for treatment and follow up.

*Swaminathan (1979)* opines that the area of residence, the level of education in the family, the social climate in the slum and several other factors hinders the use of health facilities provided by the Government by the slum dwellers.

*Yesudian (1984)* reveal that metropolitan cities even after possessing adequate health resources lack behind the rural areas in terms of mortality and morbidity as because the health activities are not directed towards solving the major health problems, the modern medical technology has no relevance to the health problems of the people, and is not suitable for their social and cultural conditions.

*Ramasubban, Crook, Singh (1991)* in a study of the Leprosy Control Programme in Mumbai stresses the need of preventive health education which could be offered by the

paramedics combined with curative strategies would offer greater advantages in controlling leprosy and other infectious diseases.

*Chaudhuri (1995)* states that according to the experiences of CINI (Child In Need Institute) in Calcutta and also based on the research studies that with the growth of the city there is also an increasing spill-over of urban poor who gradually added to the numbers seeking health care and other services from CINI. Difficulties that are faced while seeking medical facilities are overcrowding in the city hospitals, the indifferent attitude of the health care providers and lack of medicines. A mushrooming health services available in the city, are siphoned off by people coming from distant villages or other small towns. Most of these services are operating in timings which are inconvenient for urban poor so cannot be fully utilised by the urban poor. There is no definite authority to take accountability or co-ordinate programmes for implementation of health services for the urban poor.

*Rao D. (1995)* in a study of slums of Hyderabad the author reveals that a maximum of 47 percent of the slum women had their deliveries at a government hospital, 25 percent availed private hospital facilities and 23.8 percent of the mothers had their deliveries conducted at home under the supervision of friends and relatives or trained or untrained Dais. The availability and accessibility of free health services is the major hindrance for the lower socio-economic households, to consume health services. Due to the poor publicity about the available free health services, their low perception about the need to seek remedies for health disorders, their low affordability and their occupation with non-formal sector comes in the way of using health services which are provided at particular places, during fixed hours.

*Das (1996)* in a study of slums in Surat finds that most houses do not use institutions like hospitals, public health centres, dispensaries etc. at the time of childbirth which is on account of distant location of health services and also of the notion that childbirth can be easily handled within the home. He stressed the need of effectively linking the slum dwellers with the public health system.

*Kapadia-Kundu & Kanitkar (2002)* discusses the underdevelopment of the urban health policy in Maharashtra, the state which has the highest number of slum dwellers in the

country. But primary healthcare for urban slums remains in a state of neglect. Maternal and child health in urban Maharashtra (excluding Greater Mumbai) have become hospital-based programmes which do not cater effectively to slum populations. The poorest and most vulnerable groups residing in urban slums are outside the ambit of any public health coverage.

*Kappagantula (2007)* finds out in a study of municipalities in West Godavari District that mother and child care centres though are established in different municipalities are not functioning up to the mark. Besides insufficient budget, low staff strength, shortage of qualified doctors, nurses, hospital beds, and physical accommodation are other problems on account of which these centres are not able to serve the urban poor.

*Priyadarshi (2007)* in a study of slums of Delhi finds that majority of the slum households depend on government hospital for treatment mainly because of affordability. 90 percent of the slum population revealed that the treatment they received was unsatisfactory. There were insufficient public health facilities in the locality.

*Sarala (2008)* finds in a study of slums in Bangalore that majority of the slum dwellers receives their healthcare services from private institutions even though the Government is spending huge amounts for providing better healthcare services to the poor in urban areas. The major reason is the distance of healthcare centres from the residence, other reasons being unawareness of location of facility, treatment not being satisfactory, having alternative free treatment/facilities paying only half the bill amount.

*Gupta, Arnold, Lhungdim (2009)* reveal that the private healthcare facilities are the primary source of health care for the majority of households in every city in slum and non-slum areas. The three most common reasons for not using government facilities are the poor quality of care, the lack of a nearby facility, and excessive waiting times at government facilities; the other reason is the timing that the facility is open is inconvenient. Therefore it is found that private health service providers are preferred because they are perceived to be providing better and more convenient services than government service providers.

*Dasgupta and Bisht (2010)* while commenting about the failures of the National Urban Health Mission points out that in the name of primary healthcare (for the urban poor), it functioned as a Reproductive and Child Health (RCH) programme to the core. But it failed to implement even the RCH functions adequately; for example, caesarean sections remained a rarity in most of the World Bank supported India Population Project (IPP) homes.

*Chowdhury (2011)* in a study on slum households in South Delhi finds out the financial burden unaddressed by schemes such as the Rashtriya Swastha Bima Yojana, (RSBY). Out of Pocket (OOP) health expenditures are highly regressive in nature. More than 10 percent of the household resources is spent on health. Individuals suffering from tuberculosis, respiratory, gastrointestinal and gynaecological ailments are more prone to the burden. The poor household goes to unqualified medical practitioners who charge less but provide services of dubious quality. Due to reasons ranging from lengthy, time-consuming procedures to informal payments to hospital staff the poor avoid public healthcare facilities.

*High Level Expert Group Report on Universal Health Coverage for India, Planning Commission of India (2011)* states that families with the lowest incomes in urban areas are most at risk for adverse health outcomes especially for maternal and child health indicators. The lack of economic resources curtails access to available secondary and tertiary private facilities.

*Pramanik (2013)* in his study of Siliguri Municipal Corporation area finds that the slum dwellers of inner slum depend mostly on public health institutions (56.67 percent), followed by government and private institutions (25.83 percent), community health centre (10.83 percent) and private medical institutions (6.67 percent). They also use private health facilities. Due to close proximity of the sub-divisional hospital and community health centre the residents of the inner slum avail the facilities of public health institutions. In the peripheral city, highest proportion of households go to both private and government institutions for treatment (34.17 percent), followed by community health centre (26.67 percent), government hospital (24.17 percent) and private health institutions (15 percent).

*Heller (2013)* finds that in Bangladesh future investments in child health at the community level should give more emphasis on improvement in basic infrastructure rather than an increase in preventive care supply through the construction of additional health care facilities. The presence of basic infrastructural facilities such as piped water and sewer drains have a large effect on early childhood preventive care demand compared to an increase in healthcare facility availability.

*Bakibinga, Ziraba, Ettarh, Kamande, Egondi and Kyobutungi (2016)* find that in the urban slums of Nairobi majority of the women (51.5 percent) gave birth of children in a private health facility. 60 percent children those who were ill sought treatment from private health facilities. The merits of private health facilities are that these facilities remain open for long hours, provide services faster as there are fewer clients and clinicians are more courteous than those in public health facilities. The public health services are either free or largely subsidised hence affordable to the poor slum dwellers, but the demerits are long queues of patients waiting for service and few health workers to deal with the workload, the problem is compounded with frequent drug stock-outs. The slum dwellers also complained of the rough behaviour of the clinicians working in public health facilities.

*Awuah, Asante, Sakyi, Biney, Kushitor, Agyei and Aikins (2018)* find that in the communities in Accra, the capital of Ghana majority of the urban poor self-medicated i.e. the urban poor took medicine without proper diagnosis from pharmaceutical and licensed chemical sellers, consumption of leftover drugs, and the use of home remedies for malaria. The self medication is a cause of high morbidity and mortality because of Malaria in Ghana. The second reason is perceived effectiveness of alternative health systems or herbal/traditional treatment.

*Uddin (2018)* in a study of slums of Bangladesh finds that majority of slum dwellers have apathy about their diseases, nutrition and vaccination. They receive advice from the quack and kabiraj and go to the pharmacy for treatments. Only few slum dwellers avail of healthcare facilities from community clinics or government hospitals. The slum dwellers are too poor to avail of expensive health services and facilities in private clinic and hospital. Health service provided by the charitable clinic is minimal.

## 2.2.5: Status of Education

The studies in respect of education of the people in urban slums present a gloomy scenario.

*Siddiqui (1969)* in his study of the life in the slums of Kolkata finds the educational status of the people living in the slums 61 percent of the Hindus of this area are literate (Literates are defined as those have read up to the high school standard or below, but have not passed the school finals or any equivalent examination) while 65 percent of the Muslims are literates. 22 percent among the Hindus are educated (educated are those who have at least passed the school final examination or have acquired higher educational attainment) whereas only 2 percent of the Muslims are educated.

*Phadke (1970)* reveals that there is a problem regarding provision of technical education that most of the facilities for technical training available to children require a minimum educational attainment which only a few can fulfil and they get employment in the unskilled and casual jobs in the unorganized sector where protective child labour legislation cannot offer them any safeguard against exploitation.

*Roy (1995)* finds in Calcutta slums that illiteracy and high rate of drop outs at the primary and high school levels is prevalent among the slum population.

*Rao B. (1995)* finds that in the slums of Bangalore pre- school access is lacking. The very low literacy rate among females has impact on attitude practices and overall quality and improvement of the slums. Poverty is the main reason for not sending children to schools.

*Das (1996)* in a study of slums in Surat observed that in about 25 percent of the slums Balwadis/Anganwadis (pre-nursery / nursery) are located within the area. Voluntary agencies are the main service providers of pre-school education.

*Dahiwala (1997)* in a study of Kolhapur slum in reveals a low literacy rate, i.e., 53.2 percent. It is found that the majority of the illiterates 81.9 percent belong to the backward segments of people- SCs (Scheduled Caste), DNTs (Denotified /Nomadic Tribe) and OBCs (Other Backward Class). The majority of children who were not going to school belong to the SC and DNT households.

*Mohapatra and Das (1998)* find that in slums of Shillong there is high correlation between the level of income and earnings and the overall literacy is marginally low among the women which is not expected among the Khasi people where there is a general social preference system for girls.

*Singh (2001)* states that in slums of Delhi, the local body run primary schools which are located near the slums are in dilapidated condition, the schools lack in infrastructure facilities and reading materials. These schools lack proper teachers and staff.

*Aandahl (2002)* finds that in the slums of Ahmedabad most households have a maximum education level between grades 6 and 9. Public education is of low quality. Many children go to school for several years without learning how to read or write.

*Desai (2002)* reveals that migrants to the slums of Mumbai have higher educational attainment than the native-born non-migrants in the rural areas, and lower attainment than the native-born population in the cities. The oldest generation of slum dwellers had no schooling. It is also found that as the age of the head of the household drops so does the percentage of illiterate heads of households, irrespective of origin. There was variation in terms of educational attainment: from a Bombay University degree held by a young slum dweller to illiteracy amongst some of the older slum dwellers.

*Sandhu (2003)* in his study of the slums in Bangalore reveals that the majority (52.40 percent) are without formal education, education level ranges from primary level to graduation. The Christians are most educated while the Muslims are the least educated.

*Singh (2005)* finds that the education level of the mothers of the preschool children of slum dwellers of Shillong city of Meghalaya reveals that the highest proportion (46.5 percent) mothers are educated up to the secondary level.

*Priyadarshi (2007)* in slums of Delhi finds that majority of slum dwellers send their children to the Government schools because of affordable education, nearness to the slum area and easy admission process. The financially strong families send their children to the private schools as they thought that they would get proper elementary education compared to that received in Government schools. Hindi was the main language of instruction.

*Dabhi (2007)* finds that the women of urban slums in Indian cities are denied education.

*Kappagantula (2007)* in the municipalities in West Godavari District finds that schools (primary, upper primary and high schools) suffer from paucity of funds, shortage of teachers, basic amenities (inadequate classrooms, poor toilet facilities, non-accessibility to safe- drinking water, non-availability of library and laboratory facilities etc.), non-availability of English medium and computer education.

*Gupta, Arnold, Lhungdim (2009)* in their study of health and living conditions in eight large Indian cities (Chennai, Delhi, Hyderabad, Indore, Kolkata, Meerut, Mumbai, and Nagpur) find that in every city, a much higher proportion of slum household heads have no education than non-slum household heads. The slum/non-slum differentials in women's educational attainment are large in most of the cities. School attendance rates for children age 6-17 years are mostly higher in non-slum areas than in slum areas.

In slums of Dhaka parents with more income and education spend more in children's schooling. Decisions about what type of school a child would go centred upon affordability relative to the household's income (*Cameron, 2011*).

*Rahman (2012)* in the study of slums of Bangladesh finds that the slum dwellers are basically un-educated and most of them are illiterate. The boys and girls though are very eager to go to school are unable to do so due to poor economic condition.

*Pramanik (2013)* in his study on squatter settlements in the Siliguri Municipal Corporation area finds that in terms of human capital and skills the slum dwellers in the inner city are very poor and the level of education of the squatters or slum dwellers (excluding 0-6 years of age) preferred by them is that of the primary level. There are more illiterate females compared to males. At all levels of education the females are lagging behind males in the inner city. Highest proportion of slum dwellers in the peripheral slums has attained the secondary level of education (35.17 percent).

*Hossain (2014)* reveals that in the slums of Bangladesh the percentage of literacy rate is higher among male (18.19 percent) than the female (9 percent) in the slum areas. The literacy rate of slum dwellers is very low because of inadequate number of school, no opportunity of education for worker slum people. Drop out in primary education is 8 percent. 47 percent slum has no school for education.

*Bose and Ghosh (2015)* in their study of slums of Kolkata 41.67 percent of the households have not completed education up to class 5 level. Among the school going children (5-12 years of age) 97.92 percent families have school going children.

In slums of Kolkata, proportion of children going to school is high and only 20 percent of the children have not been enrolled in schools due to certain causes like financial crunch, to support the family by working etc. (*Basu and Basu, 2016*)

*Bakibinga, Ziraba, Ettarh, Kamande, Egondi and Kyobutung (2016)* in their study of urban slums of Nairobi, Kenya finds that the male slum dwellers of this area are better educated compared to their female counterpart.

*Uddin (2018)* in a study of slums of Chittagong city, Bangladesh finds that the physical environment of slum is not favourable for children's education. The literacy rate in the slum is low in comparison to national average. Female slum dwellers are lagging behind males in respect of educational attainment and the reason behind it are early marriage, gender discrimination, negligence of female children, various social myths and superstitions against female education and social insecurity of female.

### **2.2.5 (a): Situation of Dropout**

*Majumdar and Majumdar (1978)* find that in slums in New Delhi the higher age groups i.e. above 10 years the participation in education by girls decreases. A motivation for sending children to school is for the uniform and the mid-day meals provided free to the children by the school. As soon as a boy or girl crosses the age of about 12 the children are looked upon as potential sources of income and are withdrawn from school and those remaining at home act as helping hand to the mothers.

*Swaminathan (1979)* opines that in case of primary education non-enrolment and wastage and drop-outs before the completion of primary education are problems in every major city in India. This leads to increase in child labour. Lack of educational aspiration results because of problem of first generation learners home has been unable to provide help or guidance in formal education.

*Seetharamu (1983)* finds in slums of Bangalore city that dropout rate in the fourth standard is very high. It is observed that drop-out rate is highest at the standard I stage

and it steadily decreases every year thereafter. The chance of a child dropping out of school is much higher where mothers are illiterate compared to when fathers are illiterate. The dropout rate is higher in the low income households and it is relatively higher among the female children than among the male children. The retention of children in school and their regularity in attendance is high in Joint families than nuclear families. Dropout and irregularity of children in school is high when medium of instruction is different from the mother tongue. Majority of dropouts (61.40 percent) do some work at home. One out of every four dropouts is engaged in paid work. Majority of drop outs have resulted for other reasons rather than failure. Peer group influence is a major reason for irregular attendance. The drop-out rate of children of slum-dwellers studying in private schools is high as it is difficult to cope with the demands (school fees, uniform and donation) of private schools.

*Dhadave (1989)* in a study of slums in Gulbarga city in Karnataka finds that the educational level of the slum dwellers is very low. Some of the children go to the school only for a year or two years. Mainly because of poverty the parents of the children of the locality do not send their children to school and other reasons are lack of infrastructure, medium of instruction unable to understand by the slum children and schools are far away from the slum area. The female children mostly are not sent to school.

In slums of Pune the causes for drop-out and retention are: negligence of parents to look at children's performance in school, keeping away from school either by force or by children's choice and inability to arrange for private tuitions (*Rao, 1990*)

*Gill (1994)* reveals that non-conducive environment to pursue studies prevailing in the slums, lack of parents help in studies and encouraging attitude of teachers and the attitude that education is a luxury than necessity for poor parents are reasons for dropout in slums of Bombay and Chandigarh.

*Govinda (1999)* finds in the resettlement colony of slum dwellers, in majority of families at least one did not go to school. The average number of non-school going children was 1.83 per family. 38.6 percent of the drop-outs are engaged in paid work. 4.2 percent of the drop-outs were found to have failed at school while the rest just left

school. He noticed disparities within the urban education sphere. There is coexistence of practically two systems of education with quite well-defined boundaries – the private schools and the Government/Municipal/Corporation schools. The former constitute about 25 to 30 percent of primary schools in urban areas and demand high fees but have excellent facilities, equipment and curriculum which cater to the urban rich people while the latter are poorly equipped with facilities and teaching-learning material, but provide free education caters to the poorer sections of the society. Incentive schemes such as midday meal programme, free textbooks, free uniform for girls, pre-matric scholarship is not sufficient in bringing all the children to school.

In Kenya within urban areas, enrolment is higher among children who live in non-slum areas compared to those in slum areas. At older ages, starting at 9 for females and 11 for males, the enrolment for slum children starts to decline (*Mugisha, 2006*).

*Das, Khara, Giri and Bandyopadhyay (2012)* in their study of Howrah Municipal Corporation, West Bengal find that many slum dwellers are illiterate. Economical instability of family forced the children to drop out from schools.

### **2.3: IDENTIFICATION OF RESEARCH GAP**

Though a lot of study has been done on slums it is found that there is no study in detail on living condition of slum dwellers especially in respect of health and education of slum dwellers of SMCA.

Also even though study on slums of SMCA has been done the period of research is different.