CHAPTER II

URBAN SLUM, WOMEN AND ACCESSIBILITY FOR WATER AND SANITATION: A LITERATURE SURVEY

2.1. INTRODUCTION

In the previous chapter, background of the study, problem of study, aim and the objectives and also the context of the study have all been dealt with, threadbare. In building a background for the study, the introductory chapter has attempted a brief review of some relevant literature and in this chapter a further review of some very important literature, relevant and appropriate for the problem of study is presented.

A literature review identifies generally the evolution of thoughts and research in the themes of interest and points out, essentially, the knowledge gaps that this research can fill-in (Mazeau, 2013). Research takes advantage of existing knowledge, which has been gathered in the immediate and not too distant past because of constant human efforts at creating knowledge through research (Hart, 1998). A research study may be conducted either to explore a new field or to test a hypothesis to which already a considerable body of research or theoretical background exists. In both the cases, it is essential to review the extant literature, which is either directly associated to the research problem or which throws light on some or all of its relevant aspects. It is with this purpose, the present chapter is organised with three main sections. First section specifies how the literature search has been made for doing so. It also identifies the key areas of interest to this research and sets the boundaries of the literature consulted and investigated. It finally shows how the information is organised and presented. Second section presents some of the very important literatures reviewed with their main cores and findings. This section is further subdivided according the framework of the research problem, keeping in view the needed focuses in regard to ideas that are relevant to ‘women,
2.2. LITERATURE SURVEY

2.2.1. METHODOLOGY

The topic investigated here is at the intersection of several areas. The three main core areas of the study are: urban slum women, water and sanitation facilities, and time and space. The literature search favoured any documents that are linked to the research problem of the study. Literature was collected from both offline and online sources. The online sources of seven metabases were used mainly to collect the first set of documentation: ScienceDirect, JSTOR, Pubmed, Sagepub, Springer, Elsevier and EPW. Complementary searches were also made through the ‘Google Scholar’. The sets of major keywords, used in different combinations in the cited metabases, were: urban, poverty, slum, water, sanitation, women, location, distance, time, availability, accessibility and resettlement colony. The offline sources of books and journals were mainly collected from the College Department Library, Connemara Library and Anna Centenary Library located in Chennai city. The complementary offline searches were also made through other institutional libraries like the Madras Institute of Development Studies, Madras School of Social Work, Madras School of Economics and The Tata Institute of Social Sciences.

The review focuses however only on the main core: urban slum women, water and sanitation, and time and space as literature on other areas of interests is scarce. It was then necessary to go beyond the central topic and explore the three sets of keyword detailed above. The interconnection between the three reviewed sets of literature/information is represented in Chart 2.1 below:
A snowball effect was also applied to the list of references of all documents selected. To find more recent information, reports, databases and websites of some relevant organisation involved in urban water and sanitation research were also a direct source. These organisations are ACTIONAID, Asian Development Bank, COHRE, CMDA, GLAAS, SISSO, Transparent Chennai, TNSCB, UN-HABITAT, UNICEF, UNFPA, WASH, WHO and the World Bank. The reports of these organisations were used to gather ideas for the research areas in the current field contexts. Two other parallel literature reviews were made during this research, one focussing on the methodology and the other on the geographical scope of the study setting, Chennai city.

2.2.2. PRESENTING REVIEW

To facilitate reading of the review, the literature’s main idea is presented in a linear way, as shown in Chart 2.2, going from the general topic of urbanization to the more specific themes of water and sanitation facilities for slum women and of resettlement colony. Literature on methodology and geographical focus on Chennai city are presented at the end. Literature under review is however given as single entity with its main ideas and findings.
2.3. LITERATURE

2.3.1. URBANIZATION

Urbanization has been a larger issue of research of the contemporary geographic studies (Garner, 2007). In the past century, the location and distribution of cities and settlements and the interlinked issues were the widely-researched themes in Urban Geography.

Cities are the focal points in the occupation and utilization of the earth by humans and but it is also a paradox. Their rapid growth and large sizes testify to their superiority as a technique for the exploitation of the earth, yet by their very success and consequent large size, they often provide a poor local environment for humans. The problem is to build the future city in a manner advantages of urban concentration can be preserved for the benefit of man and disadvantages minimized (Harris and Ullman, 2007). So here, the literature studied gives us both the advantages and the disadvantages of the city. The main concern is about urbanization and the leading issue of urban poverty and slums.
2.3.2. URBANIZATION AND URBAN POVERTY

Grant (2010) demonstrates how urban spatial poverty traps exist in the developing countries and makes the case for including an urban focus to spatial poverty analysis and policy responses. Grant argues that spatial inequality in urban areas is based on more than physical proximity to services, infrastructure and jobs. She presents a framework that combines geography and social dynamics to show how spatial poverty traps exist in urban areas. She further provides a series of examples and experiences of urban spatial poverty traps in the developing countries. She then concludes that a shift is required in the policymaking processes to incorporate both geographical analysis and social analysis for more strategic and equitable urban development.

Beall and Fox (2007) on the other are mainly concerned with the issues of urban poverty and the cities of the present world suffering from it. The authors explain in detail how increasing urban growth and urban poverty and their related impacts such as inadequate housing, insecure tenure, lack of access to basic services, diseases and environmental hazards, violence and crime, social fragmentation and role of women in poverty affect the overall performance of many of the cities. They also talk about building inclusive and sustainable cities. The study suggests that tackling inequality is a matter of alleviating urban poverty, which is so grossly apparent in cities. The authors outline an agenda for action to reduce urban poverty and promote inclusive and sustainable cities.

2.3.3. URBAN SLUMS

Bhan and Jana (2013) seek answers for the question as to how to read the slum data of Census 2011 and what are their implications. The study finds that the slum data must be interpreted with caution on three counts: the correlation between the definition of “slum” and urban poverty, the dimension of quality when estimating access to basic services; and the
question of why so few cities and towns report slums. Ballesteros (2010) examines on the other hand the linkages between poverty and environment at the household level in the Philippine slums. It is argued in the study that possible trade-offs exist between bad housing and medical care and between bad housing and education. The study concludes that bad living environment deepens poverty, increases vulnerability of both the poor and the non-poor living in slums and excludes the slum poor from development.

Mundu and Bhagat (2008) present the living conditions of slum dwellers in Mumbai. Most slum dwellers in the megacity lack the basic necessities of life. Although many slums were notified by the Government, only one tap is shared by more than thousand persons in some of the slums compared to an average of 52 persons per tap in Mumbai. One third of the households have no access to electricity and most of the households share only community toilets. This shows that a lot of work is still to be done to improve the lives in the slums of Mumbai. The investigation concludes that community participation is the only means to improve the life of slum dwellers.

Davis (2006), in his book on the ‘Planet of Slums’, offers vivid descriptions of the world’s heavily populated slums in the developing world and characterizes them as existing in a hopeless informal sector. These sectors are not adequately tended to, neither by international organisations or the host Governments, who have long since abandoned their urban poor, in part due to the paradigm-shifting policies of the IMF and other unilateral aid organisations. David does not however view the problem of the slums as resolvable through traditional modes of assistance in the form of international aid programs and instead views these institutions as part of the cause for the current imbalance that was created after the first wave of industrialization and mass urban migration. Furthermore, he does not see any resolution of the problem of growing numbers of slums and continues to see this situation as unavoidable with our current social, economic, and political structures.
2.3.4. GENDER ASPECT IN URBANIZATION

Chant (2013) reviews the literature on gender and urban development. She discusses disparities in access to education and vocational training and to land and housing ownership through a “gender lens”. Her study considers service deficiencies and associated time burdens, which limit income generation among women. She also covers violence and gender, and gender divisions in access to different spaces within the city and in engagement of urban politics. The study concludes that if women are to enjoy a ‘golden urban age’, then gender rights and justice should remain uppermost in urban prosperity discourse and planning.

Kabajuni (2009) examines gender equality aspects in the context of urbanization with a view to highlight the importance of gender equality in efforts to improve the lives of slum dwellers. She looks at the global context of urban growth, first as a progressive indicator of development, then as the challenging aspect and finally examines the gender equality aspects of urbanization. The study mainly highlights the many problems facing the growing number of slum dwellers and the urban poor and considers whether Target 7D of MDG can be achieved at the set time (2015). The study concludes with key policy recommendations that can improve the lives of the slum dwellers by addressing gender quality concerns.

The UN-HABITAT (2010) report highlights some of the key gender issues we face in the context of rapid urbanization in the developing world. It also provides an overview of UN-HABITAT’s work in promoting gender equality in all its activities and programmes. The report says that one in three people in cities of the developing world lives in a slum. Although conditions vary, research shows that women and girls often suffer the worst effects of slum life, such as poor access to clean water, inadequate sanitation and gender-based violence. On the whole, Governments and policy makers are still responding inadequately to different gender needs in towns and cities. Creating more equal opportunities and protecting rights for
both women and men contributes to better living conditions for the urban poor and in achieving the Millennium Development Goals.

2.3.5. INFRASTRUCTURE FACILITIES IN SLUMS

Parikh et al. (2015) examine the relationship between infrastructure provision and poverty alleviation by analyzing 500 interviews conducted in services and non-services slums in India. Using a mixed method approach of qualitative analysis and regression modelling, they find that infrastructure is associated with an increased literacy by 62 per cent, enhanced income by 36 per cent, and reduced health costs by 26 per cent. Giving evidence, the study suggests that a gender sensitive consideration of infrastructure is necessary and infrastructure investment is critical for well-being of the slum dwellers and women in particular.

ActionAid International (2013) study is made to deepen the understanding of the links between violence against women and urban public services, to build evidence, to get communities and duty bearers to engage in the process and to strengthen the ability to work with women in the communities to seek change. The study was conducted in Brazil, Cambodia, Ethiopia, Kenya, Liberia and Nepal. The research states that sexual harassment is a constant reality across the six countries. The study concludes and acknowledges that there are deep-rooted patriarchal beliefs and values that compromise a women’s right to free mobility and then recommends that social and cultural change is the foundation for sustainable improvements in women’s lives.

Jose et al. (2008) examine whether access to aspects of social infrastructure, such as toilet facilities, drinking water on premises and clean cooking fuels leads to a decline in the incidence of under nutrition among women, which remains quite high, in India. This is done by analyzing the NFHS-3 (National Family Health Survey) data. The analysis brings out the incidence of under nutrition, which is substantially larger among women who lack access
than women who have access to the three aspects of social infrastructure at the all-India level and in major states.

2.3.6. WATER AND SANITATION FACILITIES

Pullan et al. (2014), in their research paper combining multiple national surveys using spatial statistical methods to investigate differences in the use of improved drinking water, improved sanitation, and open defecation at small spatial scales, use household survey data to develop comprehensive maps of water supply and sanitation. They identify specific geographical areas where coverage is substantially worse than national averages; and explore relative geographical inequalities within countries of the Sub-Saharan Africa. The study confirms the necessity for targeted policies and metrics that reach the most marginalized populations. The authors also report that the maps and analysis approach can provide a mechanism for monitoring future reductions in inequality within countries, reflecting priorities of the post-2015 development agenda.

Sultana (2011) argues in a study of hers that resource access, use, control, ownership and conflict are not only mediated through social relations of power, but also through emotional geographies where gendered subjectivities and embodied emotions constitute how nature-society relations are lived and experienced on a daily basis. A case study of drinking water contamination from Bangladesh is used to develop the theoretical arguments in contributing to existing debates in political ecologies.

Crow (2001) talks about the modes of access to water and the social and technical conditions through which people gain command over water. There are three important points gained from the study. First, there is a broad contrast in access to water between the industrialized North and the non-industrialized South. Second, the diverse ways in which people gain access to water in the countryside of the Global South. Third, there are material
and gender inequalities in each mode of access to water. The study suggests new possibilities for gaining access to water by those who are aware of the existing diversity of modes of access to water and the range of uses of water.

2.3.7. WATER AND SANITATION FACILITIES IN SLUMS

Doron and Raja (2015) interrogate the cultural, political and economic conditions that give rise to sanitation crisis in India, with it severe implications for the poor and the marginalized. The key question of their work is ‘how to interpret and explain the spectre of ‘open defecation’ in the Indian countryside and booming urban centres. Drawing on interviews and a review of ethnographic work, the researchers interrogate the idiom of modern sanitation, with its emphasis on cleanliness, progress and dreams of technology, as a constitutive idea and an explanatory force in Indian modernity.

Dill and Crow (2014) investigate water crisis and inequality in two African cities: Dar es Salaam and Nairobi. The study highlights the current lack of access as inequitable and unjust, and that is not merely in terms of quantity of water consumed or its cost but in denying all residents the same opportunities to live lives that they value. Crow, Davies, Paterson and Miles (2013) use interviews and Global Positioning Systems (GPS) loggers to measure the time taken to collect water in two large informal settlements in Kenyan cities. They investigate as to how much time is spent collecting water and how that is changed by the introduction of a new system of water collection. The use of GPS tracking provides for a better understanding of the time spent collecting water, compared to interview data but the two methods combined provide insights that neither could suggest alone.

Chaplin (2011) explains two reasons for the millions of people living in illegal settlements that lack adequate sanitation and other basic urban services. First is the legacy of the colonial city, characterized by inequitable access to sanitation services, a failure to
manage urban growth, proliferation of slums, and the inadequate funding for urban Government. The second is the nature of the post-colonial state, which, instead of being an instrument for socioeconomic change, is dominated by coalitions of interests, accommodated by the use of public funds to provide private goods. The research argues that the two factors have enabled the middle class to monopolize what sanitation services the state has provided because the urban poor, despite their political participation, have not been able to exert sufficient pressure to force Governments to effectively implement policies designed to improve their living conditions.

2.3.8. WOMEN, WATER AND SANITATION

Nallari (2015) describes how a lack of access to adequate sanitation facilities affects the lives of adolescent girls in urban poor India. The researcher draws specifically on the experiences of four adolescent girls, each living in one of the four informal settlements chosen for study in Bengaluru, India. The study reveals that where sanitation facilities are lacking, adolescent girls face many deprivations (education, leisure time, privacy and independent mobility) and risk (sexual harassment and assault, health risks) and that this inadequacy can be a structural pathway for cyclical gender-based disempowerment and injustice.

Dos Santos et al. (2015) explore the burden of women for accessing water in Sub-Saharan Africa. The authors report that women and girls spend 40 billion hours every year transporting water. The study speaks of how the person responsible for collecting water in the household is a woman and also compares the conditions in households with men. Modelling data from Ouagadougou, the capital city of Burkina Faso, is used for multivariate logistic analyses to assess the effect of different factors on the woman. Preliminary results indicate that the factors related to water access have a significant effect on the outcome. The study
also reports that the future analysis includes a refined measure of household composition and develops potentially emancipating activities.

Hulland (2015) demonstrates the evidence of how inadequate access to water and sanitation is linked to psychosocial stress among women, forcing them to navigate against social and physical barriers during their daily sanitation routines. The study examines sanitation related psychosocial stress across women’s reproductive lives in different geographical locations of Odisha, India with 60 samples. The results of the study reveal that the sanitation behaviours, which are most restricted, are the most stressful.

Asaba et al. (2013) explore gender differences in water collection in Makonda Parish of Uganda as a case study. The data of study confirm that children and women are most burdened by water collection. Unless it is from commercial or work-related reasons, or when there is a long drought, men rarely fetch water. The study further reveals that children and women walk distances of less than half a kilometre to more than two kilometres, on rugged and hilly roads and paths, carrying water on their heads or by hand. They spend a lot of time queuing at ‘unimproved’ water sources and suffer from health complications such as prolonged fatigue, chest pain and headache as a result of carrying water. Children and women are also distressed by the dangers of verbal and physical assault and rape at both the improved and unimproved water points. Authors contend that whereas time and distance remain important determinants of the burden of water collection, socio-cultural, environmental and health-related conditions are equally critical in understanding the troubles that children and women face while collecting water.

Crow and McPike (2009) produce literature on access to safe water and gender relations in urban slums of the developing world. They find from the literature that women’s lives and income-generating opportunities in poor urban communities are profoundly shaped by their inadequate access to water. They identify the main modes of access to water and
their possible influence on women’s lives. Then, they also examine the descriptions of women’s lives and the range of difficulties they face in collecting water (time of access, uncertainty and quality of supply, and costs). The study concludes that the global figures on improved access to water in urban areas focus only on the technology of access, overlooking social obstacles like the collection time and cost of access, and thus obscuring the wide-ranging social advantages of household water connections.

Bouwer (2006), reports about the association of water and women through a review. She explains the difficulties faced by women to access of water and also time consumption. She inputs the importance of women in decision making at all phases of water sectors. The exclusion of women adds additional burden and unfortunate consequences for women, which she explains by the example of interventions that happened in Nepal.

Bapat and Agarwal (2003) extract information from interviews with slum dwellers, primarily women of Mumbai and Pune about the conditions they cope with every day in regard to water and sanitation and the ways the conditions change overtime. The study explains women’s difficulty in a variety of circumstances – on pavements, besides railway tracks, in swampy areas and on steep slopes and this affects the particular problems they face. But in all cases, dealing with their needs for water and sanitation is a stressful and time-consuming challenge. The interviews provide insights that rarely emerge in quantitative studies.

O’Reilly (2006) analyzes the connections between women and water in a Rajasthani drinking water supply project as a significant part of drinking water’s commodification. Her findings indicate that water is not commodified simply by charging money for it, but through a series of discourses and acts that link it to other “modern” objects like women. She argues for women’s participation activities that link gender and modernity to new responsibilities and increased mobility for women involving the clean water supply. Women and water
resources are further connected through projects staff’s efforts to promote latrines by targeting women as their primary users. Thus, this research fills a gap in feminist political ecology, which often overlooks how gender is created through natural resource interventions, by concerning itself with how new meanings of “water” and “women” are mutually constructed through struggles over water use and its commodification.

2.3.9. SLUM IMPROVEMENT STRATEGIES AND INTERVENTION

Dhaktode (2014) speaks about sanitation issues, in particular, open defecation and the Government intervention programmes. This is on Sarola village in Tuljapur block of Osmanabad district, Maharashtra. The village has an initiative for its sustainable development with the help of Government agencies and has also succeeded in establishing a new identity for the village. The village launched Sant Gadgebaba Gram Swachhata Abhiyam (SGGSA), a sanitation programme of the Maharashtra State Government to become open defecation free. The study discusses how various factors, especially community organization and community action, enable Sarola to become open defecation free. This case study also shows that the goal of being open defecation free is not as simple as building toilets; many other factors of development are also interlinked with it.

Kundu (2013) speaks of the vision and operationalization of making Indian cities slum-free. He points out that the schemes in operation lack a reliable framework for identifying non-tenable slums and legitimate slum households that are entitled to get dwelling units. Further, the study explores the design of the Rajiv Awas Yojana (RAY), which betrays a big-city for bias to attract global capital.

Amis (2001) reflects however on the findings of an impact assessment of slum upgrading programme in three cities, Visakhapatnam, Indore and Vijayawada in India. The study documents the approach taken, including formal survey work and extensive
consultation with households in 12 slums, and presents the findings. The findings highlight the many dimensions of deprivation faced by the slum dwellers and the relative success of the upgrading projects in providing basic infrastructure. The study also discusses the difficulties in drawing simple policy recommendations and the often-unexpected ways in which studies such as these influence international donors, including those that commission them.

2.3.10. RESETTLEMENT COLONY

Saini (2012) aims to assess water and sanitation facilities in a resettlement colony of Madanpur Khadar. The main objective of the study is to find out the existing water and sanitation facilities available to the community and to understand the community’s practices in respect of the facilities. Interviews, focus group discussions, observations and community mapping are the methods applied to collect data. Women are the key respondents to understand the problems of water and sanitation from a gender perspective. The findings of the study reveal that the water and sanitation conditions in the resettlement colony are unsatisfactory. Ultimately, the researcher suggest collaboration of sector-related agencies and departments for a focused implementation of the water and sanitation programmes, along with the involvement of NGOs and community, especially women, who could make such a plan truly participatory and ever sustaining, in the future.

Ghosh (2008) examines the issues of a resettlement colony in Delhi, in the local and global context. The slum dwellers of the resettlement colonies have better housing with security of tenancy. Also, they earn more than before, both in relative and absolute terms. But relatively better income and housing have however failed to bring about substantial change in living standards. While the continuous pressure of population on infrastructures has deteriorated the physical and environmental conditions of the resettlement colonies, the casualization of employment in the informal sector has led to marginalization of the poor residing in the resettlement colonies. The study concludes that the resettlement policy needs
to address the issue of employment to formulate income-generating schemes for the slum dwellers.

2.3.11. METHODOLOGICAL REVIEW

Wutich (2007) on the other uses theories from social vulnerability and socio-ecological systems to examine the effects of urban water scarcity on the residents of Villa Israel, a squatter settlement in Cochabamba, Bolivia during the 2004 dry season. The paper tests the relationship between households’ assets within and access to market and non-market water distribution systems and their vulnerability, resilience, and robustness to urban water scarcity. The data are a part of an 18-month anthropological study of Villa Israel. The three dependent variables are: vulnerability, resilience, and robustness. They are measured using a scalogram analysis technique. The findings indicate that the households with fewer assets and less access related to the market system are significantly more vulnerable, more resilient, and less robust than those with more assets and access. The research argues that these findings can only be understood with reference to the political ecology of urban water distribution in Cochabamba at the time of the research. It concludes with recommendations for conducting future research that integrates social vulnerability and socio-ecological system theories more fully.

Rowe and Wolch (1990) develop a theoretical framework for understanding the role of social networks among the homeless. The concept of time-space continuity is offered as a way to conceptualize the impacts of homelessness on social network formation, daily paths, life paths, personal identity and self-esteem. Ethnographic research among homeless women in Skid Row, Los Angeles is used to illustrate the theoretical framework. Results indicate that the homeless women develop both peer and “homed” social networks as a means of coping with their circumstances and re-establishing time-space continuity. Network relationships can also serve as substitutes for place-based stations in the daily path such as home and work.
The characteristics of social networks and daily time-space paths appear to have affected the identities and self-esteem of the homeless women.

2.3.12. GEOGRAPHICAL FOCUS OF PRESENT RESEARCH

Coelho et al. (2013) make a study of work and livelihoods in Kannagi Nagar, Chennai’s largest resettlement site and reflect on paid domestic work as one among the limited range of occupations available to unskilled women workers in urban areas. The study takes a spatial approach to analyzing markets for urban domestic work, where issues of location, distance, travel, and timings determine opportunities for employment. The authors also look at domestic work against the background of larger employment markets for low-skilled female workers, and the range of options and preferences that frame it. The study strengthens the argument for recognition and regulation of domestic work as a category of labour that has to be turned into ‘decent work’. Padmanabhan and Shekhar (2012) review Chennai’s public sanitation challenge and also review different management models used for providing public sanitation in India and make recommendations for the Corporation of Chennai’s on-going efforts to provide public toilets via a public private partnership.

Kumaran et al. (2012) describe the findings of an 8-year study on human health and community engagement in Anjukuisai, an ‘objectionable’ slum in Chennai. The study reveals that human behaviour constrained by socio-economic factors, leading to ecosystem degradation and frequently causing reactions that jeopardize people’s health. Furthermore, the study argues that the institutional structures often prevent holistic integrated thinking and action. The study concludes that the urban health issues are closely linked to both environmental and socio-economic conditions. The impact of environmental degradation is often most severe on the poorest segments of the society as among slum dwellers, women, children and the elderly.
Sobotova (2011) investigates the preconditions for, and implications of, slum residents’ participation in slum upgrading and improvement programmes in Chennai city. Challenges for participation are analyzed with respect to sustaining or to developing outcomes of upgrading programmes in the study area. The main objective of the field research in Chennai slums is to assess the threats and opportunities for participatory development and the research identifies some areas of possible difficulties for community participation in the context of slum dwellers’ lives. The analysis further provides recommendations towards designing a programme or a project.

Sujatha et al. (2010) speak of the urban health of Chennai city. The study mainly provides spatial-information on the extent of poverty by slum/non-slum residence, according to the census; demographic and socio-economic characteristics of slum/non-slum residence and the urban poor household living conditions; health and health care for Chennai city. The perceptual study is essentially for the future planning of urban living conditions.

Srinivasan et al. (2010) adopt a systems-modelling approach to analyzing the informal tanker-water market in Chennai city of India. The results indicate that the demand for tanker supply is caused by a lack of groundwater availability in private wells as well as unreliable piped supply. The study shows that two groundwater factors are relevant: depth to water and aquifer productivity. Together, these could explain the differences in spatial, temporal and consumer-specific variations in tanker-water dependence in the city.

Coelho et al. (2010) explain the latest Cooum River Restoration Project in Chennai, which aims at focusing on slum eviction as an achievable first step. A 19-km elevated expressway on the river is also planned. Together estimated to displace over 18,000 families from the banks of the Cooum, the two projects testify as to how waterfront development, beautification, and eco-restoration along with high-end infrastructure serve multiple
purposes, both as direct strategies for capital accumulation through real estate value as well as idioms through which cities position themselves in the global arena.

2.4. RESEARCH GAP

Geographers worldwide have made a remarkable contribution to the water and sanitation research, focusing on both the rural and urban contexts. Many of them have concentrated on spatial, socio-political, economic, governance, and health related issues. But there is a very little research done in feminist geographical perspective of water and sanitation. In India, and in particular Chennai, gender and geographical research on water and sanitation is limited as most has been carried out on an exploratory basis or considered as a small ingredient of the whole research. For example, based on a base-line survey, Bandyopadhyaya and Agrawal (2013) focus on living conditions of slum dwellers in India where they study water and sanitation as one of the factors related to issues of slum dwellers. In local context, Bunch (1997) and Chandramouli (2003) study the slum profiles of Chennai city where also water and sanitation is considered as part of the study. However, from the above review of the research problem on hand, it seems that most research is quantitative and that qualitative research is rather limited. The gender-geographical approach of the research issue requires more of qualitative analysis, which can describe the conditions of women in particular geographical space or location for water and sanitation resources.

Water and sanitation is very essential and is the basic need of human beings, which is considered under the subsector of health than the other sectors in researches of India. It is well-known that bad public health among the urban poor is a devastating situation and that they are the worst sufferers from the miserable water and sanitation conditions. The poor availability and accessibility among the urban poor only causes the situations. Despite this, the studies on the availability and accessibility among the urban slum dwellers is lacking and
relatively very low effort is made to explore the reasons the solutions for the issues in gender and geographical approach, on an everyday basis.

On the other hand, researchers in feminist political ecology have more recently started to examine critically how women, economic, political and cultural processes in cities shape, and are shaped by, the urban metabolism and ecological conditions (Gandy, 2004; Kaika and Swyngedouw, 2000). This approach originates from an interdisciplinary mix of neo-Marxist ideas in urban geography and political economy that not only focus on the importance of the economy but also recognize other inequalities that exist in society (Mizanur, 2012).

Therefore, there is a considerable research gap in the water and sanitation of urban slums, where a potential contribution could be made through gender and geographical approach for sustainable development of cities and resources. Considering this gap, the present thesis tries to identify the availability of, and accessibility to, water and sanitation facilities among urban slum women and its impact on her everyday life, based on the time and space concept.

2.5. SUMMARY OF THE CHAPTER

This chapter has discussed some of the relevant literature, which encompass the local and global water and sanitation related concerns and also some of the critical issues that have been, and are, widely visible in managing relevant projects in the developing countries. Many countries across the Global South have been rapidly urbanizing. However, while urban areas have been driving economic growth (Bolay, 2006: 293), the number of people living in urban slums has also been rising. India is no exception to this where, the urban population has increased by 30.8 per cent from 2001 to 2011 (Cummings, 2012) and the number of people living in slums has been estimated to have increased from 75.26 million to 93.06 million (MHUPA, 2010).
The literature on slums provides many reasons for the rise in slum population, with rural to urban migration being a primary factor. It has been argued that the decline in the agricultural economy, as a result of economic liberalization, has pushed people to seek employment in cities (Roy, 2001; Harvey, 2007) which has caused an urbanization of poverty (Datta, 2006). It has also been argued that the model of economic growth in Indian cities has maintained the divide between the poor and the wealthy. As Harvey (2007: 34) argues, Marx’s theory of primitive accumulation could be seen in contemporary capitalism, so new areas could be opened up for privatization, such as public utilities and housing. So while the urban poor have provided cheap labour for the global economy, basic needs such as housing, water and sanitation facilities have become increasingly expensive for the poor. All of these factors have been argued about towards increasing urban poverty and the concomitant demand for low-cost housing. When this demand has not been met, people inevitably resort to living in slums.

The existence of slums has not been a necessary consequence of urbanization but due to government’s failure to ensure enough low-cost housing (Cummings, 2012), while some argue that this has been due to lack of financial resources (Milbert, 2006) and also some others have suggested that financial resources have not been a constraint (The Times of India, October 2011; Cummings, 2012). Slums have become a central concern in urban development research with various scholars discussing the issue in terms of urban poverty and exclusion and considering slum dwellers as victims. Also some literatures have treated slum dwellers as the sub-alterns and lauded them and their strategies of self-help and collective action (Roy, 2011: 224).

In urbanized areas, there have been limits on what the poor could do, independently of the state, to satisfy their basic needs such as water and sanitation (Satterthwaite, 2008: 308). In Chennai city, with a slum population of 1.3 million, there have been inadequate and
inappropriate water and sanitation facilities for the slum dwellers. Until recently, several attempts have been made to provide infrastructure services to the slum dwellers. But the extent of the services has been unsatisfactory due to resource constraints and a worrying concentration of slums that has contaminated the city ecology (Mizanur, 2012; Mabud, 2008) on a broad-spectrum. The complex social and environmental dynamics of the slums, together with inappropriate or inadequate facilities, and an incompetent governance system, have obstructed the pace of water and sanitation interventions. Lack of water and poor sanitation has been one of the many challenges faced by the poor urban population (Pore and Randive, 2014).

Water and sanitation have been closely linked with gender and class identities and has also been embroiled in competing understandings of the urban environment and the state (Batra, 2004; Coles and Wallace, 2005; Bapat and Agarwal, 2003). As such, the meanings and consequences of water and sanitation practices have varied considerably, shaping power, rights and citizenship in the city (Swyngedouw, 1999, 2004). Everyday water practices have been predominately carried out by girls and women (Agarwal, 1992; Bapat and Agarwal, 2003; Haider, 2000), and this group has also faced a unique set of obstacles with regard to sanitation. The water and sanitation have placed a severe burden on slum women who could not easily travel to another source, but who have faced bullying and escalating monetary demands every time they have attempted to procure/access the facilities (Truelove, 2015). Such local social relations have illuminated another dimension of water inequality noted in studies such as Bapat and Agarwal’s (2003) examination of women, which has found that “anyone can take charge of water and collect money”. Due to the irregularity and insufficiency of services, women from slums have shown a variety of illegal and/or informal methods for accessing it. The water supply has often failed to come for days in scheduled times. When they have arrived, both unpredictable timings and insufficient quantities have
made women to resort to a variety of other sources on a nearly daily basis, often requiring women to compensate through practices that bend and break their physical and mental health (Truelove, 2015). Having no access to toilets in their own slum cluster, they have resorted to walking together each morning in large groups for an approximate one hour return trip. Specifically, women have recounted stories of harassment, abduction, and rape while visiting their sanitation points (Truelove, 2015). The accumulation of these experiences has contributed to women’s sense that their bodies and lives have been ‘de-valued’ within particular spaces of the city.

Since taking care of family responsibilities and needs of water and sanitation related activities have been gender-coded as female activities, long-distance commuting and time consuming has become a deciding factor of their state of living conditions. The study of human activities and movements in space and time in the urban context has long been an important theme in research. But only very few studies have however been found to have applied time and space concept for studying water and sanitation facilities with a gender perspective. The Scholten’s strongest argument for turning to time-geography has been that it has given the possibility to visualize constraints, dominant projects and individual reach by creating images of the everyday struggles between activities, decision-making, hindrances and intervening policies from an individual perspective and at all local geographical level (Scholten et al, 2012).

Few scholars have argued for feminist approaches in water and sanitation sectors (Turelove, 2011; Bouwer, 2006; Parikh et al, 2015) as it has been useful for understanding how the everyday practice has been tied to the construction of scales such as the body, household and city at large. An understanding of the ways in which gendered and cultural water and sanitation practices have been productive of particular social differences, distribution differences and “access and control” have become the only means for
understanding how water and sanitation practices are tied to power and inequality. Understanding the ‘everydayness’ of water has been particularly important and timely given recent global efforts to create a unified discourse of how to solve global ‘water problems’ (Goldma, 2005, 2007).

The role of government and its political will to provide housing and basic services like water and sanitation to the poor has therefore been a key determinant to the living standards of slum dwellers. However, for government policy and political will to adequately address the needs of the poor, there must be public pressure calling for the government to do so (Dreze and Sen, 1996), therefore the effective engagement of public with government will addresses the needs of slum people and also in development strategies of resettlement (Currie, 1998). The movement of inhabitants from a squatter settlement to a resettlement colony could be perceived as a rise in the status of the slum dwellers. But relatively better housing has however failed to bring about substantial change in living standards (Ghosh, 2008).

Thus an analysis of wide-ranging and complex water and sanitation related experience has helped to demonstrate that a sole focus on access, control and distributional differences is insufficient for capturing the scope of inequalities related to water and sanitation in the city. Therefore, there is a considerable research gap in particular at local context and so this study has applied gender-geographical approach in studying the water and sanitation facilities for the urban poor women, which could help to illuminate how and why social and spatial inequality have continued to be tied to water and sanitation even when the quantities and access points have been improved.