

**AN INVESTIGATION INTO HOUSEHOLD WATER SUPPLY, SANITATION
AND HYGIENE OF A SELECTED SLUM WITH GENDER PERSPECTIVE**

Safina Naznin

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Institute of Water and Flood Management (IWFM)

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The thesis titled ‘**An Investigation into Household Water Supply, Sanitation and Hygiene of a Selected Slum with Gender Perspective**’ submitted by Safina Naznin, Roll No. M04052801F, Session: April 2005, has been accepted as satisfactory in partial fulfillment of the requirement for the degree of Master of Science in Water Resources Development on April 12, 2010.

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.....
Dr. G.M. Tarekul Islam
Associate Professor
Institute of Water and Flood Management
Bangladesh University of Engineering and Technology
Dhaka.

Chairman
(Supervisor)

.....
Dr. M. Shah Alam Khan
Professor and Director
Institute of Water and Flood Management
Bangladesh University of Engineering and Technology
Dhaka.

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Dhaka.

Member

.....
Ms. Hasin Jahan
Programme Director
WaterAid Bangladesh

Member
(External)

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(Safina Naznin)
Roll No: M04052801F
Session: April, 2005

*DEDICATED
TO
MY FATHER*

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Abbreviations

ADB	Asian Development Bank
BBS	Bangladesh Bureau of Statistics
BUET	Bangladesh University of Engineering and Technology
BWDB	Bangladesh Water Development Board
BWP	Bangladesh Water Partnership
CUS	Center for Urban Studies
DSK	Dushtha Shasthya Kendra
FAO	Food and Agricultural Organization
FGD	Focus Group Discussion
GoB	Government of Bangladesh
GWA	Global Water Alliance
IFAD	International Fund for Agricultural Development
IWRM	Integrated Water Resources Management
LGED	Local Government Engineering Department
MoWCA	Ministry of Women and Children Affairs
MoWR	Ministry of Water Resources
NGO	Non-Government Organization
NWP	National Water Policy
PDB	Power Development Board
RTI	Respiratory Tract Infections
T&T	Telegraph & Telephone
UN	United Nations
UNCED	United Nations Conference on Environment and Development
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
WARPO	Water Resource Planning Organization
DWASA	Dhaka Water Supply and Sewerage Authority
WHO	World Health Organization
WID	Women in Development
WSS	Water Supply and sanitation
WUA	Water User Association

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ABSTRACT

Lack of safe water and basic sanitation is an acute problem for the women and girls who live in poor and overcrowded urban slums in Bangladesh. Access to safe drinking water is a basic human right and essential for achieving gender equality, sustainable development and poverty alleviation. The study intends to identify the household water supply, sanitation and hygienic behavior in a selected urban slum. The study also highlights women contribution in household based water management. From the study it has been found that the water supply and hygienic condition of the study slum are worsening and people, especially women suffer the most due to lack of availability of water. Only 16% household used pipe water for their domestic purposes and remaining 84% used water from open reservoir. Their water storage behavior also unhygienic and 48% water storage pots remains uncovered in the study slum. Only 1% household used fitkiri as a disinfectant. They are habituated to take the contaminated water and suffer from various water-borne diseases including skin diseases, diarrhea, and year round abdominal pains. Moreover, 22% people of the slum area use open latrine besides lake. In addition to this, only 30% respondent use soap after toilet for hand washing and 48% use only water for hand washing. Remaining 22% does not use anything for hand washing. This is in part due to limited awareness or ignorance of the health hazard related to use of unsafe water for household purposes and unhygienic sanitation practices. Although women in Korail slum play a strong role in community mobilization in safe water and hygiene promotion; men, especially the elite and influential people have voice and decision making for water management and operation in this area. Moreover, women are not as widely consulted and women's priorities and requirements are not given as much attention due to different power relations between women and men. Although women have the opportunity to earn money, they do not have control over their resources. Moreover, they often subject to violence in the study slum. Women's control over resources is limited because of societal values and practices determining men as the guardians of property, the heads of the household and the decision makers in the public sphere.

CHAPTER ONE

INTRODUCTION

1.1 Background

Water is absolutely essential for man, animals and plants. Without water life on earth would not exist. It is difficult to imagine any clean and sanitary environment without water. Safe, adequate and accessible supplies of water, combined with proper sanitation, are basic needs and essential components of primary health care. The larger the quantity and the better the quality of water, the more rapid and extensive is the advancement of the public health.

Gender is a critical factor in shaping how people access, control and use natural resources (Agarwal, 1992). Gender analysis takes into account women's roles in production, reproduction, and management of community and other activities (World Bank, 1996). Gender analysis in the water sector reflects the interests and needs of women as well as men. Gender considerations are at the heart of providing, managing and conserving our finite water resources and safeguarding health through proper sanitation and hygiene. The importance of involving both women and men in the management of water and sanitation has been recognized at the global level, at least since the 1977 United Nations Water Conference at Mar del Plata and during the International Drinking Water Supply and Sanitation Decade, 1981-1990. The Dublin principles, endorsed at the international Conference on Water and the Environment in 1992, recognized that "Women play a central part in provision, management and safeguarding of water" (IANGWE, 2004).

Globally, the issue of water management and women has been almost exclusively focused on and women are responsible for the provision and management of water at the household and community levels (Tortajada, 2003). In developing countries women's life is particularly concerned with water availability and domestic context are very different from those of industrialized ones. Family work usually covers one third to one half of a woman's working day. In both rural and urban areas, it includes tiring tasks such as fetching water for domestic use. Women are the main users of water: for cooking, washing, family hygiene and sanitation. Although women's better

understanding of natural variations of water availability, accessibility is acquired through countless generations' experience as managers of domestic water sources, this knowledge is still scorned or simply ignored by policy-makers and engineers who are still usually men (Baden, 1993).

Lack of safe water and basic sanitation is an acute problem for the women and girls who live in poor and overcrowded urban slums in Bangladesh. Since 1990, over one billion people have gained access to improved drinking water and sanitation services. However, there are still 2.6 billion people who do not have sanitation facilities, and 1.1 billion people are still using water from unimproved sources (Water Supply and Sanitation Collaborative Council, 2004). They are mainly the poor, concentrated in rural areas and slums around big cities. In 1995, UNDP estimated that 70% of poor people are women.

Water is a basic need connected with the very survival of human beings. Since women are the primary collectors, users, and managers of water for domestic purposes and they manage home and community based sanitation activities, it will be effective to integrate their concerns, provide them with access to and control over resources and promote their decision making power to achieve desired results of policies, programs and projects. This study is intended to make a gender analysis of household based water supply, sanitation and hygiene. The study has been conducted on Korail slum near Mohakhali and Gulshan which is one of the largest and oldest slums in Dhaka city (CUS, 2006), where safe water and hygienic sanitation is a very basic problem and most slum dwellers have limited access to safe water for drinking as well as other domestic purposes.

1.2 Objectives:

- i. To identify the sources of water supply in the selected slum.
- ii. To assess water supply situation in relation to scarcity.
- iii. To analyze the behavioral pattern of safe water and sanitation practices of urban slum community.
- iv. To assess the gender role in water supply, sanitation and hygiene in household as well as community level.

1.3 Scope of the Study

Women carry out most of the water-related work throughout the world. In Bangladesh, where there are strong social and cultural barriers, only participation of both men and women will facilitate smooth achievement of process related outputs. Since women are the primary collectors, users, and managers of water for both domestic and agricultural production and they manage home and community based sanitation activities, it will be effective to integrate their concerns, provide them with access to and control over resources and promote their decision making power to achieve desired results of policies, programs and projects.

Historically, poor slum communities do not have adequate access in safe water and hygienic sanitation. The study will be helpful to identify the exact situation of safe water and hygienic sanitation situation in slum area, and broadly, in the study area. The study will also be helpful to integrate gender concerns and perspectives in policies and programmes for sustainable development. As women are mainly responsible for household based water management, their contribution should be acknowledged and include them in decision making level. It also would be used to aware the grassroots women about safe water and hygienic sanitation, water-related disasters and to reduce vulnerability.

1.4 Limitations of the Study

This study is very unique in the context of Bangladesh. As a result the relevant information was difficult to find. Some limitations of the study are:

- In some cases, the study has been confronted lack of adequate information from the respondent.
- Primary data variation from person to person.
- The study is concerned with a small area of urban slum for the time constraint.
- The study has been conducted in only a few households under a large slum; so, it was inadequate to focus the overall scenario.
- It is quite tough to arrange more interviews and FGD, as most of the respondent are working outside for a long time.
- The study focused on household water supply, sanitation and hygiene with gender perspective, so water quality have not analyzed.

CHAPTER TWO

LITERATURE REVIEW

2.1 Gender Issues in Water, Sanitation and Hygiene

Lack of safe water and sanitation remains one of the world's most urgent health issues. Some 1.1 billion people worldwide still lack safe water and 2.6 billion have no sanitation. According to the UN-HABITAT publication in 2003, *Water and Sanitation in the World's Cities: Local Action for Global Goals*, less than half the population in urban centers of Africa, Asia and Latin America has water piped into their homes. Less than one third of them have adequate sanitation. In urban Asia, up to 700 million people constituting half the population, do not have adequate water, while up to 800 million people or 60 percent of the urban population are without adequate sanitation. The report also documents that each year, 2.2 million deaths or 4% of all deaths can be directly attributed to inadequate supplies of clean water and sanitation. Each day, there are 6,000 deaths from diarrhoea, mostly of children under 5 years of age. In fact, child mortality rates in cities without proper sanitation are 10 to 20 times higher than those in cities with adequate sanitation (UN-HABITAT, 2006).

Health problems related to the inadequacy of water supplies are universal but generally of greater magnitude and significance in developing countries. Although population under water supply coverage improved significantly during the Water Supply and Sanitation Decade and after the Decade, it has been estimated about 25% of the population in developing countries still does not have access to Safe Water. As a result, millions of people in developing countries each year suffer from water-related diseases. The infant mortality rate is still very high in developing countries largely due to lack of safe water supply and sanitation and unhygienic behavior (Ahmed and Rahman, 2000).

In Bangladesh, every year 3 million children under five years of age die of diarrheal disease and every child suffers an average of three times diarrheal attacks in a year. It is recommended that diarrheal diseases can be prevented easily with the use of safe water and hygienic sanitation (WHO, 2000).

Those interested in participation have much in common with those interested in gender. The exploitation which millions of women suffer in developing countries should be of particular concern to those interested in implementing or promoting more participatory projects. Development interventions have been shown to be more sustainable when women are involved as equal partners (Blackburn and Holland 1998:5).

In 1977 a major UN gathering, ‘the World Water Conference’ in Mar del Plata, Argentina, declared that the 1980s were to become the International Drinking Water and Sanitation Decade. Realisation of the Decade slogan ‘water and sanitation for all’ would demand a radical overhaul of the way water and sanitation development was implemented. This included a vision for reaching the needs of the poor and marginalized and in this context gender equality and women’s participation began to be acknowledged as key themes.

Following the Decade and the preparation of the Earth Summit’s Agenda 21 Document (UNCED 1992), a set of agreed principles (most commonly known as the ‘Dublin Principles’) provided the basis for policy discussion in the water and sanitation sector. A key feature was recognition of water as an economic commodity, a factor which demanded that attention should be focused on the value water has to its users, including women and how such value translates into demand for services.

The need for a holistic, participatory and integrated approach in the management of scarce water resources and the environment was also seen as key and the importance of the role of women was clearly stated in Principle 3, below.

Principle 3, The Dublin Statement, January 1992

Women play a central part in the provision, management and safeguarding of water and goes on to state that:

The pivotal role of women as providers and users of water and guardians of the living environment has seldom been reflected in institutional arrangements for the development and management of water resources. Acceptance and implementation of this principle requires positive policies to address women’s specific needs and to equip and empower women to participate at all levels in water resources

programmes, including decision making and implementation, in ways defined by them.

A gender approach to hygiene offers men and women a role in the promotional work and division of responsibilities for family hygiene practices. It ‘encourages shared decision making about resources and the needs of men and women are addressed relative to their own areas of skill, authority and responsibility’ (Van Wijk-Sijbesma 1998).

Worldwide, 1.1 billion people still use unsafe drinking water sources. They are mainly the poor, concentrated in rural areas and slums around big cities. In 1995, UNDP estimated that 70% of poor people are women.

2.2 Gender Approach in Water Sector of Bangladesh

2.2.1 National Policies/Attempts

Government of Bangladesh (GOB) has taken initiatives to improve the situation and declared National Women Development Policy in 1997, which are a step towards women in development. In 1999, GOB declared the National Water Policy where women’s participation was highlighted (MoWR, 1999). In order to realize the broader objectives of development and empowerment of women, necessary steps have been taken to strengthen the institutional capacity of various national machineries. In 1999, BBS published “Gender Dimension in Development” where stated that “The government of Bangladesh realizes that there is still a big way to go to ensure women’s equality in development and empowerment. Government has undertaken measures relating to women issues in all spheres of life. In order to realize the broad objectives of development and empowerment of women, necessary measures have been taken to strengthen the institutional capacity of various national machinery.” (BBS & MoWCA, 1999).

In water resources management, an uncoordinated and sectoral approach has resulted in environmental degradation from over exploitation of water resources, inappropriate allocations among competing uses, inequitable distribution of benefits and burdens, and inadequate operations and maintenance of infrastructures. Inadequate involvement of both men and women has hindered program and projects aimed at

addressing sustainability in water resources management. Community participation and management approaches have failed to address these issues, largely because communities are often seen as collection of people with common purpose (GWA, 2005). So, gender perspective in water resources management is a key to ensure sustainable water management, as people centered approaches do not always ensure gender sensitiveness in resources management.

Integrated water resources development which is a cross sectoral holistic approach to water management for sustainable development illustrates in principle “women should be recognized as central to the provision, management and safeguarding of water”. Philosophy, policy and implementation guideline of IWRM also addressed “gender and social disparities in terms of equitable access to and control over resources, benefits, cost and decision-making between women and men”.

On the other hand, “National Water Policy-1999” is aimed at:

- To bring institutional changes that will help decentralize the management of water resources and enhance the role of women in water management.
- To develop a state of knowledge and capability that will enable the country to design future water resources management plans by itself with economic efficiency, gender equity, social justice and environmental awareness to facilitate achievement of the water management objectives through broad participation.

In the gender mainstreaming, NWP is undoubtedly a great leap forward to establish discipline and direction to the water management of the country. The policy looks at water resources and its multiple uses in a comprehensive manner and also clearly spells out the rights and responsibilities of various stakeholders.

Guideline for Participatory Water Resources Management was approved in 2000 (MoWR, 2001) while National Water Management Plan (WARPO, 2001a) emphasized on women’s participation in water resources management. As a reflection of all these policy and guidelines, Bangladesh Water Development Board (BWDB) and Local Government Engineering Department (LGED) have been incorporating

women in large and small scale water resources development and management projects in all stages ranging from planning to operation and maintenance via implementation.

2.2.2 Gender Concern in Water Resource Management

Women are half of the world's population, receive one-tenth of the world's income, account for two-thirds of the world's working hours and own only one-tenth of the world property (ILO, 1980). Most of the world's 1.2 billion poor people, two thirds of whom are women, live in water scarce countries and do not have access to safe and reliable supplies of water for productive and domestic uses (IFAD, 2001a).

A World Bank review of 121 rural water supply projects found that women's participation was among the variables strongly associated with project effectiveness. Furthermore, it was found that the failure to take gender differences and inequalities into account can result in failed projects. For example, in India, compost pits located outside villages went unused, and women continued to deposit waste near their homes - even when fined for doing so - because they did not wish to be seen carrying loads of refuse to the outskirts of the village. If there had been consultation with women, perhaps this problem could have been avoided (Narayan, 1995).

A study by the International Water and Sanitation Centre (IRC) of community water supply and sanitation projects in 88 communities in 15 countries found that projects designed and run with the full participation of women are more sustainable and effective than those that do not involve women as full partners (Wijk-Sijbesma, 1999).

Hoque, et al (1994) stated that women's direct involvement in water supply and sanitation (WSS) project as well as their participation in all stages of the project brought a significant achievement. The study findings had significant policy implications for effective involvement of rural women towards the development of sustainable WSS programs.

Nahar (2002) stated that, in terms of water supply and sanitation projects, women are the main users of water as they are mainly water collector as well as user at household

level. Women are involved in care taking of hand tube well, sanitary latrine, family health, vegetables production and all sorts of water uses at household work. Lack of sufficient water supply and lavatory facilities affect them in many ways. She also focused on some key areas of National Water Policy (NWP) by which the needs of women and poor in this sector as well as active participation of women have been highlighted.

Ahmed and Jahan (2000) attributed women's participation in water supply and sanitation. They have tried to ascertain some concern and way forward for women in WSS. The authors depicted the state of gender equality in water supply and sanitation system and also opined for a gender sensitive approach in WSS.

Kabir and Faisal (2005) portrayed some key areas where women can contribute a lot like household water management, health and wellbeing, irrigation water management in their study on "Analysis of Gender-Water Nexus in Rural Bangladesh".

Moinuddin (2004) emphasized mostly on proper WSS for betterment of women which constitute the half of the country population. Lack of safe drinking water is a major concern for Bangladesh people. Despite the abundance of surface water, there has always been the question of quality. Surface water pollution pushed up ground water dependency in Bangladesh. Access to safe drinking water is one of the most important determinants of health and socio-economic development. Proper WSS can unload women's work pressure and considerable health benefit, that can contribute to a greater work capacity and thus towards increased production and over all economic development.

There are a good number of successful water supply projects, where women's participation acts as a key tool to undertake the activity. *Dushto Sastha Kendra* (DSK) an NGO has revealed the success of women in WSS. Women were involved and entitled to do the entire activity through a cooperative community. Where the poor slum dwellers have a 100% repayment and no late payment, they successfully run the project. Women understood the economics and also appreciate the opportunity cost of having walked to collect water. Women can really value the water (ADB 2006).

Ashrafi (2007) assessed of women's empowerment through their participation in three small scale water resources development sub-project areas comparing with a base (control) site where no development intervention in water sector existed and portrayed the scenario that water intervention must have contribution in women empowerment.

Building an appropriate gender perspective into water resource management involves developing an approach to ensure gender equity such that women receive a fair share of development resources and benefits (BWP, 2000).

The involvement of communities, both men and women, in the selection of and planning for water interventions is the key to successful gender mainstreaming. Not addressing the multiple uses of water has been recognized as one of the causes of the lower participation of women in WUAs (IFAD 2001b).

Evidence from many countries, such as India, the Lao People's Democratic Republic, Nepal, Pakistan and Sri Lanka, shows that women's participation in WUAs is much lower than that of men. The pretext often used for excluding the participation of women in WUAs is that women do not physically irrigate fields because irrigation, by strict definition (opening and closing farm gates or field gates), is considered a man's job (Zwarteveen, 2006a).

WUAs need to play an active role in local water management in recognizing the multiple uses of water in and around households. Greater participation by women in WUAs has been achieved in cases where membership is open to multiple users of water (not only irrigators, but also livestock owners and fishers) (IFAD, 2006b).

Women took up leadership roles when they benefited from leadership training through the projects, such as for example in a project in Nepal (Empowerment of Women in Irrigation and Water Resources Management for Improved Food Security, Nutrition and Health Project) that is supported by the Food and Agriculture Organization of the United Nations and the United Nations Population Fund (FAO, 2003b).

Increased participation of women in WUAs has also been observed in Bangladesh and

Yemen, where efforts are being undertaken to empower rural women through the formation of women's groups, combined with the disbursement of agricultural credit (Jordans and Zwarteveen, 1997; IFAD, 2006b).

In Bangladesh, women accomplish most of the water-related work and they also faced strong social and cultural barriers to manage it. Traditionally, poor slum dwellers always suffer due to lack of access to adequate safe water and hygienic sanitation. The study will be helpful to identify the exact situation of safe water and hygienic behaviors in slum area. The study will also be helpful to integrate gender concerns and perspectives in policies and programmes for sustainable urban development. Since women are the primary collectors, users, and managers of water for both domestic and agricultural production and they manage home and community based sanitation activities, it will be effective to integrate their concerns, provide them with access to and control over water resources and promote their decision making power to achieve desired results of policies, programs and projects.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

A proper methodology is always necessary for the successful completion of any research work. It helps to organize and conduct the study. The following methods have been undertaken to complete the research work.

3.2 Conceptualization

It means developing clear understanding about what is intended to do in the study. This was done by communicating with the resource persons and studying different journals, books, seminar papers, reports, magazines, review papers etc., which focus on the issue related to the research topic, a clear concept about different aspects of the research were developed.

3.3 Selection of the Study Area

Study area is selected according to the objectives of the study. Korail slum is representing the exact scene of typical urban slum of Bangladesh from water use and sanitary practices. It is located near Mohakhali and Gulshan and considering one of the largest and oldest slums in Dhaka city (CUS, 2006). Moreover, the eastern and southern edge of the area is defined by the Gulshan-lake, a main water reservoir for the adjoining areas. Thus the problem of safe and available water is likely to be more acute than any other area. Because of its location near the high-end residential and commercial areas (Gulshan, Banani and Mohakhali) of Dhaka it attracted low income people engaged mostly in service jobs like cleaners, household helpers, rickshaw pullers as well as worker of ready-made garments industries. Besides, proximity of the area made it easier to collect information from different sources.

3.4 Reconnaissance Survey

Prior to data collection, a reconnaissance survey has been conducted in the study area. This survey has helped to realize the existing condition of the area.

3.5 Data Collection

In this study both primary and secondary sources have been used for data collection and both qualitative and quantitative methods have been used, though major emphasis has been given to the qualitative methods during data collection and analysis. Data collection has been completed during November, 2009 to December, 2009.

3.5.1 Primary Data Collection

Primary data were collected through field visits in the study area. Semi structured questionnaire has been used for in-depth interview of the slum dwellers (Appendix: A). According to the objectives the questions intends to know about the sources of water in the study slum, gender concern of water management, about their contribution in water resources management, about their behavioral pattern of safe water and hygienic sanitation, their socio-economic conditions and so on. That is why; both quantitative and qualitative methods have been used in the questionnaire.



Figure 3.1 Focus Group Discussions (FGD) in Korail Slum

Moreover, Focus Group Discussion (FGD) and Case study methods has been used for collecting primary data (Appendix: B). A small qualitative survey has been done among 50 households to identify their involvement in water resources management in their family as well as community level. The households are chosen randomly based on the criteria of location, condition of houses, ownership and period of tenancy and so on. Moreover, for data collection random sampling techniques is relatively easier

(Kothari, 2006). As women are primarily responsible for the use and management of water resources, sanitation and health at the household level, the research extensively focused on women's perception and would interview them with semi-structured questionnaire for primary data and case studies. In addition to this, Key informant interview and FGD would be conducted among different socio-cultural groups of men and women, as gender mainstream incorporate both men and women in water resources management. In addition to the formal process of collecting data, the researcher spent a considerable time observing the community in an informal manner by visiting the study area frequently and interacting with its residents as a participant observer.

3.5.2 Secondary Data Collection

This is an important issue of the study. All data and information were collected from different Government and Non-Government Organizations. Statistical report, articles, published material, officials' records and literature review are also necessary for getting secondary information. Internet materials are also widely used in this study. After collecting all the data, it will be analyzed by using Moser Gender Planning framework.

3.6 Gender Analytical Framework

This study is basically a qualitative assessment to understand the contribution of women in water supply, sanitation and hygiene practices. The Moser gender Planning Framework was adopted as a methodology to carry out the assessment of gender role in the study area. Moser's concept of gender analysis aims to challenge unequal gender relations and to support women's empowerment (March, 1999). Moreover, the framework is frequently used on gender issues to raise awareness of women's subordination, including their unequal workload and to find potential ways of challenging these. Case studies have been adopted for better understanding of the real situation.

Moser's framework consists of six tools:

Tool 1 – Gender roles identification / triple role

This tool involves mapping the gender division of labour by asking “who does what?” Caroline Moser identifies a triple role for low-income women in most societies, which she uses in this framework. The triple role for women consists of reproductive, productive and community-management activities. Using three categories helps highlight community management work that may often be ignored or overlooked in economic analysis. Table 3.1 and 3.2 indicate the three categories of productive, reproductive and community work and indicators respectively in this framework.

Table 3.1: Activity Profile for the Moser framework

Activities	Women/Girls	Men/Boys
Productive Activities Agriculture Income generating Employment Others		
Reproductive Activities Water related Fuel related Food preparation Childcare Health related Cleaning and repair Market related Others		
Community Involvement Attendance at meetings Religious activities Recreation Community activities Others		

(Source: Martch, 1991)

Table 3.2: Indicators for analysis of Activity profile

Profile	Category	Indicator
Activity profile	Productive Activities	Day labor; Household helper; Small Business; Service holder; Van driver; Garage worker; Shopkeeper; Waste collector etc.
	Reproductive Activities	Collection of fuel ;Control of water for house hold consumption; Cooking ; Caring for children; Caring of elderly and patients.
	Community Management activities	Attending to funeral, wedding ceremonies, Participation in NGO like BRAC, DSK, etc ; Participation in village meeting such as local ‘shalish’ etc.

Tool 2 – Gender needs analysis

Using the idea that women have different needs to men due to their triple role and their subordinate position in many societies, assess the needs of men and women using categories of practical and strategic needs.

Practical gender needs are those which, if met, help women with their current activities. They are a response to the immediate perceived necessities within a particular context and are usually of a practical nature (e.g. water provision, specific training or income earning opportunities to provide for the household). Their fulfilment, however, will not challenge existing gender divisions of labour or women’s subordinate position.

Strategic gender needs exist because of women’s subordinate social position and would, if met, enable women to transform imbalances of power between men and women. Strategic gender needs are context-specific but may include issues such as legal rights, education, equal wages or domestic violence.

A simple matrix (Table 3.3) could be used to map out and record the practical and strategic needs.

Table 3.3: Gender Needs Assessment Matrix

GENDER NEEDS ASSESSMENT	
Women’s practical gender needs	Women’s strategic gender needs
<ul style="list-style-type: none"> • Access to seedlings • Firewood • Needs related to reforestation and forestry activities • Improved ovens • Marketing of rattan products • Specific training • Paid work 	<ul style="list-style-type: none"> • Collective organisation • Right to speak out • Skills in leadership and leadership positions in the project or community • Education

Source: March, C., I. Smyth, M. Mukhopadhyay (1999)

Tool 3 – Disaggregate control of resources and decision making within the household

This tool examines the differences in the control of and access to resources by asking “who controls what?”, “who decides what?”, and “how?”. It also links between the allocation of resources within a household and bargaining processes. A matrix could be used to record the data similar to the Access and Control Profile used in the Harvard analytical tool (Table 3.4).

Table 3.4: Example of possible matrix for analysis of resource and decision-making control

ACCESS AND CONTROL PROFILE				
	Access		Control	
	Women	Men	Women	Men
Resources				
Land				
Equipment				
Labour				
Cash				
Education/training				
Other				

Benefits				
Outside income				
Assets ownership				
Basic needs (food, clothing, shelter)				
Education				
Political power/prestige				
Other				

Source: March, C., I. Smyth, M. Mukhopadhyay (1999)

Tool 4 – Plan for balancing the triple role

Examine how a policy, programme or project will affect any of the roles women have. Ensure that all women’s work and responsibilities are considered – concentrating on one role will lead to unrealistic assumptions being made about the other roles. Women must balance competing demands on their productive, reproductive and community responsibilities. The need to balance these roles determines women’s involvement in each of the roles, and potentially constraints their involvement in activities which will significantly increase the time they need to spend in one particular role.

Tool 5 – Evaluate intervention aims

This is mainly a tool for evaluation, to examine what approach has been used in existing project, program or policy. However, it can also be used to consider what would be most suitable approach for future work. This tool is also encouraged to consider how planning interventions transform the subordinate position of women, by asking: to what extent do different approaches meet practical and/or strategic gender needs.

Five approaches that have dominated development planning over the last few decades are identified in the framework:

- Welfare (recognises women’s reproductive role and seeks to meet their practical gender needs through top-down handouts)
- Equity (original WID approach – seeks to gain equity for women in the development process)

- Anti-poverty (second WID approach – a toned down version of the equity approach)
- Efficiency (third WID approach – preoccupation with ensuring development is more efficient and effective through women’s economic contribution)
- Empowerment (most recent approach that seeks to empower women through greater self-reliance)

Tool 6 – Involve women, gender-aware organisations and planners in planning

Finally, Moser Framework examines to what degree women and gender-aware organisations and individuals are involved in the planning process. Involving them to the maximum extent will ensure that women’s real practical and strategic gender needs are incorporated into the planning process. Examine how women gender-aware organisations and individuals can be directly involved at all stages, from analysis to implementation.

3.7 Strength and Limitations of Moser’s Framework

3.7.1 Strengths of Moser’s framework:

- Moves beyond technical elements of planning, recognizing its political elements and assuming conflict of interests in the planning process.
- Recognizes the transformative potential of gender planning;
- Conceptualizes planning as aiming to challenge unequal gender relations and support women’s empowerment;
- Makes all work visible and valuable to planners through the concept of triple roles;
- Distinguishes between types of gender needs: those that relate to women’s daily lives but maintain existing gender relations (practical gender needs) and those that potentially transform existing gender subordination (strategic gender needs);
- Categorizes policy approaches.

3.7.2 Potential limitations:

- The idea of gender roles obscures the notion of gender relationships and can give the false impression of natural order and equality;
- The framework does not mention other forms of inequality, such as class, race or ethnicity;
- The framework is static and does not examine change over time as a variable;
- The policy approaches should not be seen as mutually exclusive; they may often overlap each other in practice.

CHAPTER FOUR

PROFILE OF THE STUDY AREA

4.1 Selection Basis of the Study Area

For ensuring direct and in-depth involvement with the field, the study has been conducted on Korail slum near Mohakhali and Gulshan which is considered as one of the largest and oldest slums in Dhaka city (CUS, 2006), where safe water and hygienic sanitation is a very basic problem and most slum dwellers do not have access to safe water for drinking as well as for washing, bathing and other purposes. Moreover, the eastern and southern edge of the area is defined by the Gulshan-lake, a main water reservoir for the adjoining areas (Figure 4.1). Because of its location near the high-end residential and commercial areas (Gulshan, Banani and Mohakhali) of Dhaka it attracted low income people engaged mostly in service jobs like cleaners, household helpers, rickshaw pullers as well as worker of ready-made garments industries.



Figure 4.1: Korail Slum

In addition to this, a dirty lake surrounds the slum. Plastic pipes under the lake carry DWASA supplied water for the slum dwellers. The pipes have many sub pipes running like spider webs. These pipes run to reservoirs each allocated for 20-30 households. Normally, these pipes supply water once a day, rarely twice. When there is water, the slum dwellers, especially women collect it from these pipes directly by maintaining a queue and have to pay for this service.

This area also representing the exact scene of typical vulnerable community and people in this community suffer from various water-borne diseases including skin diseases, seasonal diarrhea, and year round abdominal pains. Women have to walk long distances and spend a large portion of their working hours for collecting water and most of the time they also have to carry their infants when they go out to bring water.

The initiatives so far taken and being taken at present at government and non-government levels are insufficient for providing sustainable solution of the safe water crisis. As a result, the lives and livelihoods of more than 1,00,000 people (CUS, 2006) of the area have become extremely vulnerable. Because of these reasons Korail Slum is selected as the study area.

4.2 Historical Background of Korail Slum

In 1965, the then East Pakistan Telegraph & Telephone Board (T&T) acquired a piece of land in the Korail area of Gulshan from several landowners for its own use. During 1980s' because of change of technology, the installations in the Korail area became obsolete. Most of the technical set-ups were withdrawn from the area. The Telephone Board sold the land to the Power Development Board (PDB). But, during this time one of the pre-1965 landowners filed a law suit against the T&T arguing that the T&T did not have a legal basis to sell the land as it was acquired for T&T's purpose only. In the meantime, the slum was established by several influential elites of the area. The then ward commissioner and several other political leaders led the establishment of the slum. From the very beginning, the tenure rights have been highly insecure for the slum dwellers. However, the High Court has provided an injunction against any eviction on August 2, 2003. This legal intervention provided a certain level of tenure security in Korail slum. At present, there are 8,914 households and 32,725 people living in the area (BRAC Health Programme, 2008). Most are migrants from different districts of the country, particularly from Jamalpur, Barisal, Mymensingh and Kishoreganj. Recently, the interim caretaker government has evicted many slums in big cities including Dhaka. Many evicted slum dwellers now live in Korail slum, affecting the living conditions and service delivery in the slum (The Asia Foundation, 2008).

4.3 Description of the study area

4.3.1 Location

Korail slum is a built-up area, surrounded by water. It is located near the high-end residential and commercial areas of Gulshan, Banani and Mohakhali of Dhaka. Geographically the study area is located in central part of Bangladesh at 23°42'0" north latitude and 90°22'30" east longitudes. The slum is in ward number 19 of Dhaka City Corporation area. The total area is approximately 62.72 ha., total household around 20480 and total population 107700, population density is around 1750 inhabitants/ha. In this study around 50 household surveyed for direct and in-depth analysis.

Location map of the study area is shown in Figure-4.2

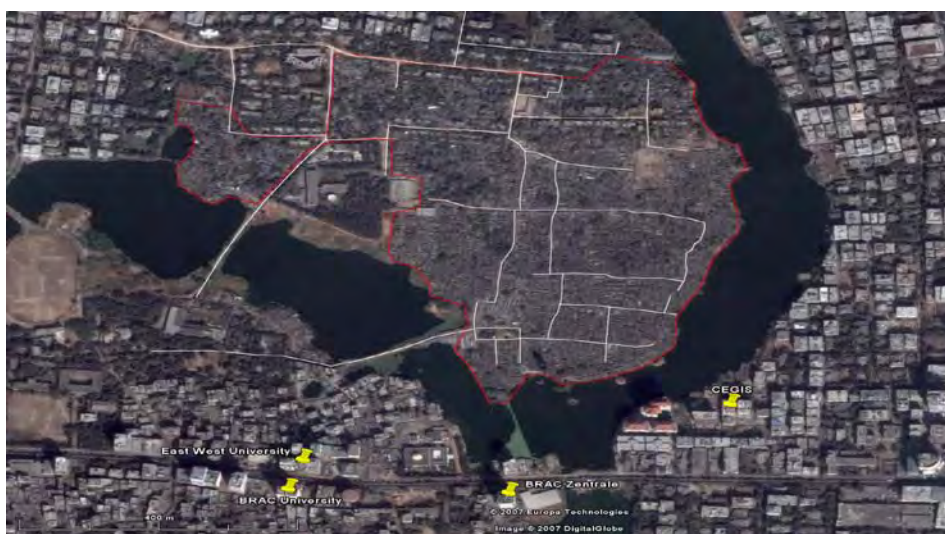


Figure 4.2: Location Map of the study Area

4.3.2 Socio-economic Status

The occupational status within the study area is dominant by garments workers and household helpers. According to field survey, 24% of the total occupational group in this slum is engaged in household helper and 20% worked in garments factory. Besides this group, a significant section of the study slum people are shopkeepers, day labor, rickshaw puller, van puller, cleaner etc. It was observed that a major portion of male household (14%) unemployed. They are totally depends on their working wife/daughter/son. The average income of the residents of the studied slum is significantly low-ranging between Tk.1000 to 5,000 per month. Table 4.1 shows the Socio-economic condition of the study slum.

Table 4.1: Socio-economic condition of the study slum

Occupation	Percentage of Male	Percentage of Female	Percentage of Total Population	Income/month
Garments Worker	10	20	15	3000-5000
Van puller	14	0	7	2000-4000
Day labor	16	0	8	1000-2000
Rickshaw puller	16	0	8	3000-5000
Household helper	0	24	12	1500-3000
Small business	14	16	15	2500-4000
Shopkeeper	16	16	16	3000-5000
Cleaner	0	10	5	1500-2000
Midwife	0	2	1	2000-3000
Housewife	0	12	6	0
Unemployed	14	0	7	0

4.3.3 Education and Literacy Status

Government acts as the key provider of educational facilities but does not give much attention for education purpose in the study slum. Some NGOs like BRAC, Phulki worked for education in the slum. Hence the children of this slum get opportunity to have primary education. But the adult people are not well educated. Only 40% male have primary education and 50% female got their primary education. Although some NGOs and social mobilization group work in the slum area, people are not aware about safe water and hygienic sanitation. Table 4.2 shows the education and literacy status of the study slum.

Table 4.2: Education and literacy status of the study slum

Percentage of population	No schooling	Primary education	Secondary Education (SSC)	Higher Education (HSC)
Male	30%	40%	20%	10%
Female	40%	50%	10%	0

4.3.4 Housing

The housing pattern of the study slum is very poor. The area is very congested with high population density. Every day new poor migrants are coming to the Korail slum but new rooms are not being constructed accordingly. So, living space is becoming very scarce. With the recent price hike, rents are also increasing and the quality of the housing is deteriorating. Several landlords are not repairing their houses. Most of the houses of the slum are made of bamboo, straw, low quality wood and tin sheets. The floor of these rooms usually made of brick and cement. Most of them hold a single room with average size of 100-126 sq. ft. for the whole family (5-6 members) that makes the slums very congested. Women, especially adolescent girls often have lack of privacy and dignity due to such environment. According to a recent report, population density in slums and squatters ranges from 700 to 4,210 per acre, and a minimum of four and maximum of ten people share a room, which is highly congested and unhealthy (Singha, 2001). Also, “in a landlord house at least five poor households share the same kitchen,” said one female slum dweller. Most of the people work all day long. Poor people get very little time to prepare food. Within the short time, completing the whole kitchen tasks is really tough. Although the poor housing quality, most of the houses rented at 700-1500 BDT per month.

4.3.5 Electricity

Slum dwellers are not eligible for electricity services as they do not live in legally-owned lands. In Korail slum, there are registered associations namely Slum Welfare Committees. These committees subscribe electricity in their name. Also, several neighboring elites who have their own land subscribe electricity. They then provide electricity through these subscriptions to the slum dwellers. The cost of such service is too high for the poor and they paid around 240 BDT per month for electricity. Mainly the elites who control the associations benefit from the inflated charge for electricity. Another very common practice that the electricity suppliers follow is that they deliberately switch off the connection several times a day in the name of load shedding by the authority. By doing so, they lower their electricity bill, while taking the same amount of money from the tenants. Thus, when it comes to urban service delivery, the tenants continue to suffer.

4.3.6 Water

Like electricity, slum dwellers are not entitled to get water supply because they do not have holding addresses. In this slum, groups of elites control the whole business of water supply. However, an interesting thing is, these groups of elites are not always necessarily the ones who control the water supply. New actors emerge and in a particular case, the supply of water has a political dimension. Slum having no tap water supply facilities are paying much more for drinking water than the rich people. They have to depend on water vendor or with some illegal sources for collecting drinking water after a long queue.

Figure 4.3 indicates the water supply structure in Korail slum. In this slum, in the name of associations, the elites along with corrupt DWASA officials control the water supply. Around 53 water supply lines exist in this slum, among them only 5 are legal. Slum dwellers have to pay (around 100 Tk/month) for the water service to the house owner. There are middlemen/contractor operating these connections, who have managed to obtain them on payment of the illegal service charge. However, the contractors do not pay to DWASA for this supply. Some corrupt DWASA officials also help the illegal water business.

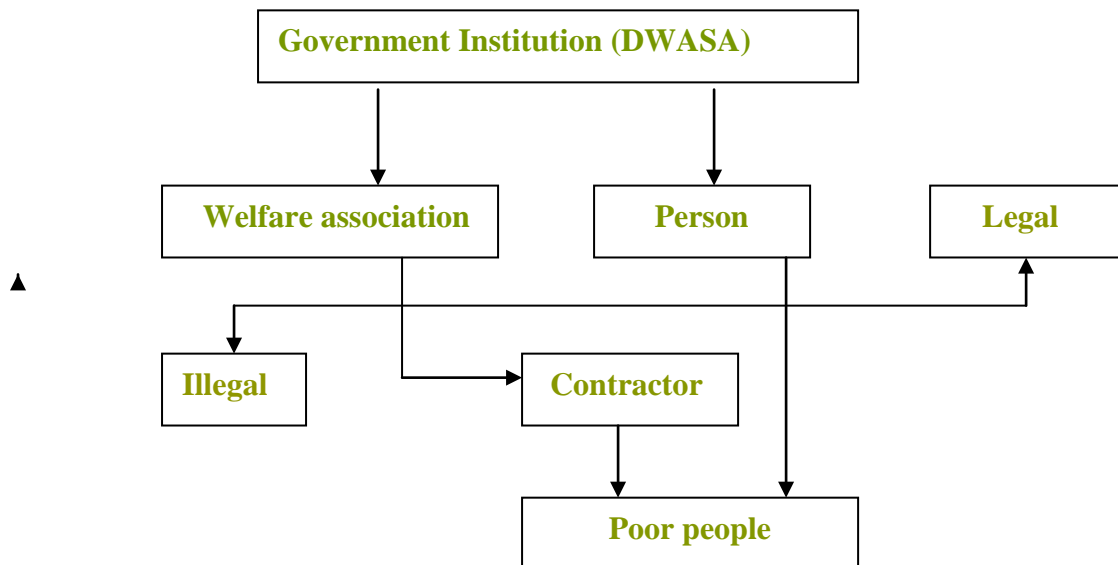


Figure 4.3: Water Supply Structure in the Study Slum

4.3.7 Sanitation and Hygiene Practices

Regarding sanitation in Korail slum, toilet facilities are absolutely inadequate and sharing toilets is very common. There are around 88 Cluster latrines, 11 Twin pit latrine and 91 unhygienic latrines in the study slum (DSK, 2009). Some organizations, like WaterAid Bangladesh, DSK etc. working in the slum for sanitation and hygiene promotion. They provide community latrine to the slum dwellers. Around 20 household shared a two chamber (one for male, another for female) latrine in this slum. However, sanitary latrine is very inadequate in this slum. If someone becomes ill with dysentery or diarrhea he or she has to use the toilet more often which hampers other people's chance to use when there is a shortage of toilets. The condition is more severe in the morning, as most of them are working outside. At that time they maintain a queue for defecation. Women often loss their privacy and dignity due to such sanitation practices.

Sometimes, because of lack of hygienic toilets, the poor go to open spaces. Because of their poverty and illiteracy they are not enough conscious about hygienic behavior. They often use soap for hand washing. Menstrual hygiene is also a problem for most of the female slum dwellers, except those who use sanitary latrine provided by Water Aid and DSK.

The working conditions of slum dwellers, especially women and children are also not hygienic. Garment workers, household maids, day labor - many of them are women, work 12-hour /days, leaving them little time to keep their children and houses clean. Mothers have no days off in the week. Slum children themselves often work as garbage pickers, helpers on public transport, or helpers in restaurants, which is also unhygienic as well.

Because of poor environmental condition and malnutrition the slum dwellers suffer from different skin diseases, RTI problems, diarrhea, etc. Women suffering from menstrual irregularities, anemia, gastritis and skin diseases are found in great many numbers. Children are also susceptible to most of these common diseases.

4.3.8 Solid Waste Management

Slum dwellers are used to throughout their solid/kitchen waste in the nearby road or drain. Sometimes, the solid waste creates problems to drainage congestion. Solid wastes are usually dumped besides the narrow road and obviously creates problem for the passerby. The condition is worsening during the rainy season. Fortunately, some NGOs work in this slum for waste collection like other area of Dhaka City Corporation. Dustha Shasthya Kendra (DSK) with the support of Water Aid Bangladesh provides 5 waste collector vans for 1200 household and they recruited some collectors from the slum dwellers to collect household waste. They charged Tk. 20 for each household. Although this is a good practice, but inadequate for the large slum, like Korail. Sometimes, poor slum dwellers are not willing to pay this for waste management.

CHAPTER FIVE

WATER SUPPLY, SANITATION AND HYGIENE SITUATION

5.1 Water Supply Situation in Korail Slum

Like other urban slum, Korail have the vulnerable situation in case of water supply situation. Slum dwellers are not entitled to get water supply because they do not have holding addresses. Some local elite or influential people control the illegal water supply business. In Korail slum, in the name of associations, the elites along with corrupt Dhaka Water Supply and Sewerage Authority (DWASA) officials control the water supply. Around 53 water supply lines exist in this slum (DSK, 2009). Among them, 48 water supply lines are illegal in this slum and all the lines carry water for the slum dwellers. Moreover, a dirty lake surrounds the slum and plastic pipes under the lake carry DWASA supplied water. The pipes have many sub pipes running like spider webs (see Figure 5.1). These pipes run to reservoirs each allocated for 20-30 households. Normally, these pipes supplying water once a day, rarely twice for an hour, which is not frequent in all times. Slum dwellers have to pay around 100 BDT per month for this service. When there is water, the slum dwellers, especially women and girls collect it from these pipes directly by maintaining a queue. All slum dwellers have been used pipe water for their drinking purpose.

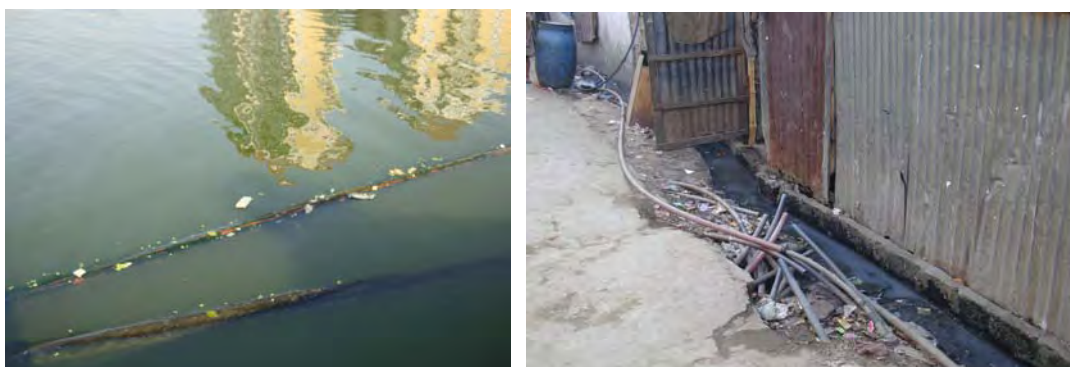


Figure 5.1: Water Pipe Carrying Drinking Water

In case of domestic use, the slum dwellers prefer the open reservoirs, which are usually near about their house. 84% of the respondents fulfill their domestic water demand such as, cooking, cleaning and washing, from these sources. As the reservoirs

are open, contamination might be possible in these sources. Remaining 16% use pipe water for their domestic purposes (Table 5.1). According to a study conducted by Centre for Urban Studies also explored, most slum dwellers have access to safe water for drinking purpose only, and most use unsafe water for washing, bathing and other purposes. A small proportion of the urban poor (20%) use sanitary latrines and the majority still use a variety of non-hygienic latrines (CUS, 1996).

5.2 Water Collection, Preservation and Storage Technique

Women in the study area have to walk long distances and spend a large portion of their working hours for collecting water and most of the time they also have to carry their infants when they go out to bring water. Slum dwellers are carrying water for drinking and other domestic purposes once in a day averaging 10 liter per vessel and store it. Usually they have to go to the collection point for more than 5 times in a day.



Figure 5.2: Water Collection and Storage Practices in Korail Slum

It takes around 1-2 hours to collect and store water from the nearby sources. Usually they collected around 80-100 liter per day for drinking and other domestic purposes, which is not adequate as well. 54% household has to collect water at the morning, when most have rushed to go to their workplace. Around 36% has to collect water at

noon/evening and 10% collected at night (Table: 5.1). If any one could not able to collect water for the drinking purpose, her neighbors collect it. In that case she (neighbors) had to carry more water. They always maintain a good community relationship and it is a very common practice in this slum.

Table 5.1: Status of Water Sources and Water Use Pattern

Water Use Pattern			Percentage of Household
Water Sources	For Drinking	Direct pipe water	100
		Piped water stored in open reservoir	0
	Domestic purpose	Direct pipe water	16
		Piped water stored in open reservoir	84
	Collection Time	Morning	54
		Evening/Noon	36
		Night	10
Water Storage	Storage pot	Aluminum pot	24
		Plastic jar	64
		Plastic drum	12
	Covered with	Lid	30
		Uncovered	48
		Polythene	22
Water Purifying Technique	Water Boiling		0
	Fitkiri		1
	Water Purifying Tablet		0

The storage condition of water is not adequate. Most of the time they did not use any lid on the storage vessel and they introduce their dirty hands on these vessels. For research purpose all household provide information about their water storage pattern. Around 64% people use plastic jar, which are usually rejected/used 5 liter oil jar (Table 5.1). Only 30% use lid on the storage vessels. Sometimes the storage vessels have wide mouth and they often introduce their dirty hands on these vessels. They clean the storage pot quite often. From field survey, 48% household store water, where the storage devices are frequently left uncovered and subject to contamination. Although others use lid (30%) or polythene (22%), there was still not adequate to

prevent contamination. Another study on safe water and hygienic sanitation strongly suggests the role of containers in the contamination process. Having unsanitary storage containers is known to contribute to substantial degradation in water quality (Saha and Naznin, 2005).

Because of their lack of knowledge, they are often unaware about disinfectant. However, only 1% respondent used disinfectant (Fitkiri) in storage vessels. Although most of them mentioned about their concern on water boiling, which is a very common practice for disinfectant in Dhaka city, they could not able to do this. Lack of time, cooking facility and increased rate of fuel wood encourage them for not to use boiling water. Actually they might be habituated to take the contaminated water and suffer from various water-borne diseases including skin diseases, diarrhea, and year round abdominal pains. This is in part due to limited awareness or ignorance of the health hazard related to use of unsafe water for household purposes.

5.3 Behavioral Pattern of Sanitation and Hygiene

In the study slum, large numbers of people do not have access to safe water. They used piped water for drinking as well as for domestic purpose. Usually they store drinking water in their room. The water they used for domestic purpose preserved in an open reservoir. Both the water contains visible pollutants and sometimes the pipe remains in the waste (Figure 5.3). Moreover, a large number of people are illiterate. Because of their illiteracy they have few or sometimes no knowledge about safe water and hygienic sanitation.



Figure 5.3: Water Pipes Remains in Drain

Table 5.2: Behavioral Pattern of Sanitation and Hygiene

Sanitation Practices		Percentage of Household
Latrine use	Cluster/Sanitary latrine	18%
	Twin pit latrine	34%
	Ring slab latrine	26%
	Unsanitary/Open latrine	22%
Hand Washing Practices after Toilet Use	Using soap	30%
	Only water	48%
	No hand washing	22%
Solid / Kitchen Waste	Waste collector	28%
	Dumping	14%
	Throughout the street/drain	58%

Proper sanitation can control many excreta related diseases and contamination. Interestingly, 22% people of the slum area use open latrine besides lake. Open defecation also found during the field survey. This also leads to water contamination in the study slum. However, 18% people use cluster/sanitary latrine provided by a local NGO (DSK with the support of Water Aid Bangladesh). Another 34% use twin pit latrine and 26% use ring slab latrine in the study slum (Table 5.2). Most of the latrines are very near about their water source, from where they collect water for domestic purposes. Sometimes they preserve water in toilets, which they use for their domestic purposes (Figure 5.4).



Figure 5.4: Hygienic Behaviors

Adequate hand washing is very important for good health. In the slum area, only 30% respondent use soap after toilet for hand washing and 48% use only water for hand washing. Remaining 22% does not use anything for hand washing (Table 5.2). Because of their lack of knowledge, they often introduce their dirty hands on water vessels. As a result, a large number of slum dwellers suffer from different water borne diseases.

WHO (1993) recommended that, infectious diseases are transmitted primarily through human and animal excreta, particularly faeces. If there are active cases or carriers in the community, then faecal contamination of water sources will result in the causative organisms being present in the water. The use of such water for drinking or for food preparation, contact during washing or bathing, or even inhalation of water vapour or aerosols may then result in infection.

5.4 Menstrual Hygiene

In Korail slum, menstrual hygiene is a problem for many adolescent girls and women, who lack the privacy to properly wash and dry menstrual rags. Due to a culture of silence and ignorance, the issues related to menstrual hygiene and management is absent here. A vast majority of women and girls use rags torn from old saris, known as “nekra”, instead of sanitary towels/napkin. Rags are washed and used several times. There is no private place to change and clean the rag and often no safe water and soap to wash it properly. A culture of shame forces them to wait for privacy even at home. The rag is washed and hung to dry in some well hidden, often damp and unhealthy place. Sometimes, they use dirty clothes due to lack of availability of water for washing these clothes as well as using wet rags results in infection. This practice is responsible for a significant proportion of illnesses and infections associated with female reproductive health. The condition is worse who use open/unsanitary latrine. Fortunately, the sanitary latrine users (provided by Water Aid and DSK) have the opportunity to wash these clothes separately in their toilet. However, most of them are not aware about menstrual hygiene.

5.5 Solid Waste Management

Incase of solid/kitchen waste, most of the respondent (58%) used to throughout their waste in the nearby road or drain (Table 5.2). Sometimes, the solid waste creates

problems to drainage congestion. The condition is worsening during the rainy season. Fortunately, some NGOs work in this slum for waste collection like other area of Dhaka City Corporation. Dustha Shasthya Kendra (DSK) with the support of WaterAid Bangladesh provides 5 waste collector vans for 1200 household and they recruited some collectors from the slum dwellers to collect household waste. They charged Tk. 20 for each household. Although this is a good practice, but inadequate for the large slum, like Korail. Sometimes, poor slum dwellers are not willing to pay this for waste management.

Water supply along with sanitation and hygiene conditions in the study area is very poor and people suffer mostly for this, as water is basic need to survive. Field survey and observation strongly suggests that household contamination of drinking water significantly contributed to diarrheal diseases. Contaminated water along with unsafe storage and unhygienic behavior leads to poor health on the slum community. It was found that all household suffer much in diarrheal diseases, because of their unhygienic behavior. In this slum, people, especially women are in worse condition.

CHAPTER SIX

GENDER ROLE ASSESSMENT

6.1 Introduction

This study is basically a qualitative assessment to understand the contribution of women in water supply, sanitation and hygiene practices. The Moser gender Planning Framework was adopted as a methodology to carry out the assessment of gender role in the study area. Moser's concept of gender analysis aims to challenge unequal gender relations and to support women's empowerment (March, 1999). Moreover, the framework is frequently used on gender issues to raise awareness of women's subordination, including their unequal workload and to find potential ways of challenging these. Case studies have been adopted for better understanding of the real situation.

6.2 Gender Role Assessment

6.2.1 Gender Roles Identification / Triple Role

This tool involves mapping the gender division of labour by asking "who does what?" Caroline Moser identifies a triple role for low-income women in most societies, which she uses in this framework. The triple role for women consists of reproductive, productive and community-management activities. Table 6.1 indicates the three categories of productive, reproductive and community work in the study slum.

6.2.1.1 Productive Activities

In Korail slum, both men and women are involved in different types of productive activities for their livelihoods such as, day labor, household helper, small business, service in different organization, van driver, rickshaw puller, garments worker, garage worker, shopkeeper, hotel worker etc. (Table 6.1). As this slum is located in high commercial and residential area, there is a greater opportunity to get different lower class job for the slum dwellers.

Most of the women, who have a limited education (Primary education) or sometimes no education, have the opportunity to get a job in any garments factory. Although men have also the opportunity to get job in garments factory, the frequency is not that much higher compared to female worker. Moreover, women are also involved in household worker. Both women and men are visible in small business, such as

traditional cake, grocery shop, phone shop, etc. ignoring the social and cultural norms. A major portion of women is involved in cleaner in the municipal area. They worked even at midnight. Poverty and economic needs influence them to do this work. However, some productive work, such as, rickshaw and van puller, boatman etc. only designated for men. Table 6.1 clearly mentions the productive activities in the study slum.



Figure 6.1: Women's Productive Activities

6.2.1.2 Reproductive Activities

Table 6.1 shows that women are involved in household activity such as collection of fuel, water, cooking food, caring for children, nursing, household shopping, washing clothes, cleaning toilets etc. in the study area. Men are involved occasionally in caring of children and water collection. If the female member is outside of home and they are available then some of them (men) sometimes collect water and caring their children. Water and hygiene related activities, such as; collection, storage, cleaning etc. are totally done by women in the study area. In the study area, women have to bring water from the water sources (pipe), which is far away from their home and spend a long time on line for collection of drinking water. Sometimes they bring their child to collect water. It takes away from women 1 to 2 hr every day for water fetching. On the other hand, it exposes them to health hazards. It also takes time away that might be used for more productive activities. Because of the scarcity of water, they become more vulnerable and it hampers their productive work time. However, with their productive activities they have to manage their reproductive work as well. A research revealed that men work between 3138 and 3700 hours a year whereas women's productive hours have been estimated at 2048 hours a year which devoted to paddy work, livestock raising and kitchen gardening (Farouk 1980 ; cited in Ara and Khan, 2005).

Table 6.1: Activity Profile for the Moser framework

Activities	Women/Girls	Men/Boys
Productive Activities		
Day labor	Very Less	Yes
Household helper	Yes	No
Small Business	Yes	Yes
Garments worker	Yes	Less
Service	No	Very less
Van driver	No	Yes
Rickshaw puller	No	Yes
Garage worker	No	Yes
Shopkeeper	Yes	Yes
Waste collector	Very Less	Less
Boatman	No	Yes
Cleaner	Yes	Very less
Fishing	Very Less	Yes
Reproductive Activities		
Collection of fuel	Yes	No
Collection of water	Yes	Very Less
Shopping	Yes	Yes
Cooking food	Yes	No
Washing cloth & plates	Yes	No
Cleaning household	Yes	No
Cleaning of toilets	Yes	No
Caring for children	Yes	Very less
Nursing	Yes	No
Community Management Activities		
Participation in social Function	Yes	Yes
Wedding ceremonies	Yes	Yes
Participation in NGO meeting	Yes	Yes
Participation in Shalish	Very less	Yes

Note: Yes indicates all members of FGDs and informal interviews agreed

Less indicates at least half of the members of FGDs and informal interviews agreed

Very less indicates only few members of FGDs and informal interviews agreed

No indicates no one agreed

Khan (1993) explored that women do much expenditure saving works such as fetching water, collecting fuel wood, cooking, cleaning, child care, house repair, fishnet and trap making etc.

6.2.1.3 Community Management Activities

Both men and women are involved in different types of community management activities in the study area (Table 6.1). Both of them participate in different community functions, social meeting, NGO meeting etc. They participate in the social functions such as funeral, wedding ceremonies and play their specific role. Basically women are involved in the decoration of house and beautification of bride & bridegroom; singing song and preparing sweets & cakes. Men are involved in the financial management and outside activities. However, sometimes women play a strong role in financial management in different function. Table 6.1 shows that poor people of the study area informed about their participation in different NGOs such as BRAC, DSK, Practical Action etc. Men are actively involved in village meeting such as shalish. Men have voice in case of decision making. Except some NGO meeting, women have no voice in case of decision making. However, women play a strong role in community mobilization in safe water and hygiene promotion. Men, especially the elite and influential people have voice and decision making for water management & operation in the study area.

From the qualitative analysis of activity profile of Moser Framework (Table 6.1), it is found that people are deprived of many kinds of water related benefits. Due to lack of water supply and sanitation coverage, the people cannot avail of the facilities enjoyed by the people living outside the slum.

6.2.2 Gender Needs Analysis

Using the idea that women have different needs to men due to their triple role and their subordinate position in many societies, assess the needs of men and women using categories of practical and strategic needs.

Practical gender needs are those which, if met, help women with their current activities. They are a response to the immediate perceived necessities within a particular context and are usually of a practical nature (e.g. water provision, specific

training or income earning opportunities to provide for the household). Their fulfilment, however, will not challenge existing gender divisions of labour or women's subordinate position.

Strategic gender needs exist because of women's subordinate social position and would, if met, enable women to transform imbalances of power between men and women. Strategic gender needs are context-specific but may include issues such as legal rights, education, equal wages or domestic violence. Table 6.2 indicates the practical and strategic gender needs in the study slum.

Table 6.2: Gender Needs Assessment

GENDER NEEDS ASSESSMENT	
Women's practical gender needs	Women's strategic gender needs
<ul style="list-style-type: none"> • Access to water • Reducing women's work load through increasing of water availability. • Improvement of health & sanitation through easy accessibility to water basically for women, especially during their delivery & menstruation period. • Improvement of health through primary health center • More job opportunity will increase women empowerment. • Firewood • Specific training on safe water and hygiene practices 	<ul style="list-style-type: none"> • Collective organisation • Right to speak out • Skills in leadership and leadership positions in the community • Participation of women in the executive body such as member, union chairmen, will change the social structure and helpful to raise women's voice. • More education facilities will make poor women to get literacy which is a predictor of decision making. • Capacity building in case of decision making through easy access of women to training & education program. • Creation of job sector so that skilled or trained women could exercise their knowledge and increase their ability.

6.2.3 Disaggregate control of resources and decision making within the household

This tool examines the differences in the control of and access to resources by asking “who controls what?”, “who decides what?”, and “how?” It also links between the allocation of resources within a household and bargaining processes. Table 6.3 indicates the access and control profile of the study slum.

6.2.3.1 Resources

Table 6.3 indicates that men have limited access to and control over the land in the study area, whereas, women do not have any access and control over the land in this area. They are more vulnerable in case of land ownership. The land ownership goes to the male member of the family. Most of the slum dwellers migrate from different regions of the country. Some of them sold everything and migrate to Dhaka for better opportunity. A study made by Ara and Khan (2005) revealed that in rural areas land is the most important primary resource that opens access to credit, rights to water and other natural resources.

Table 6.3 also indicates about the limited access of women to water in the study slum. Women spent 1-2 hrs on an average during water collection for household activities. UNFPA (2002) studied that women in many developing countries walk for an average of about 6 kilometres each day to collect water. Although women collect limited amount of water but they have control over its multipurpose use such as cooking, washing cloths and utensils, bathing, caring of children and cleaning toilets. However, influential people (mostly men) are involved in water supply for the slum dwellers. Water availability depends on their interest. In that case, women become more vulnerable in the study slum.

Although both men and women have access to income, women have very limited control over their income. Usually, they used to spend their money for household purpose. However, their husband often forced to take their income and use this for his own purpose. Salhuddin (1994) revealed that only in 2.5% of male headed households, the wife alone controls the income from sale of crops. The same thing was also happened in case of NGO credit program. Different NGOs are involved in the study slum and get the credit opportunity for slum dwellers. Usually they prefer

women to take loan under the credit program. However, women have very limited or sometimes no control over their credit. Salahuddin (1994) revealed that credit has been made available to women in a limited way to rural women's groups through collateral free special credit programs of Grammen Bank, Swanirvar Bangladesh and other NGOs.

Table 6.3: Analysis of Resource and Decision-making Control

ACCESS AND CONTROL PROFILE				
	Access		Control	
	Women	Men	Women	Men
Resources				
Land	No	Less	No	Yes
Water	Less	Less	Less	Yes
Cash/Income	Yes	Yes	Less	Yes
Education/training	Less	Less	No	Less
NGO Credit Program	Yes	Less	Less	Yes
Benefits				
Outside income	Yes	Yes	Less	Yes
Assets ownership	No	Less	No	Less
Basic needs (food, clothing, shelter)	Less	Less	Less	Less
Education	Less	Less	No	Less
Political power/prestige	No	Less	No	Less
Decision making Power	Less	Yes	Less	Yes

Note: Yes indicates all members of FGDs and informal interviews agreed

Less indicates at least half of the members of FGDs and informal interviews agreed

No indicates no one agreed

6.2.3.2 Benefits

Table 6.2 shows that both male and female members of the household have access to outside income, whereas, women have very limited or sometimes no control over the income. They are forced to give this income to their husbands. Men have limited access and control over asset ownership. However, women do not have access to and control over this type of resources.

Table 6.2 indicates that women face difficulty for collecting of drinking water. They have less access and control over that collected water (Table 6.2). UNDP (2000) studied that 80% of all sickness and disease in the developing world can be attributed to unsafe water and inadequate sanitation. They have limited access over the food because they have less agriculture production and less income. They do not get sufficient food for their livelihood. Due to less availability of drinking water, food and nutrition, people face difficulty in health condition. People of the study area suffered from different health hazard due to water scarcity. Smyke (1991) revealed that Tanzanian women use up 12- 20% of their daily calorie intake fetching water and faces different health hazard.

In the study area, both men and women have limited access to education. However, women do not have control over their education or training. They are also getting less chance in training which is very important to improve their own capacity. Both men and women are getting access for awareness building, mobility for their empowerment and opportunity for capacity building under different NGO activities. Women have limited voice in case of decision making in the study area from household level to community level (Table 6.2).

6.2.4 Plan for Balancing the Triple Role

Women in the study area have the triple role, like productive, reproductive and community management activities. They work hard for balancing these triple roles. As most of the women are very poor, productive work is their main activities along with the reproductive activities. Because of social and cultural norms women have the responsibility of household works. In the study slum, most women wake up in very early morning (at 4-5 am) and start their work. They did all the household work and after that going outside for their productive work. After completing their outside work

they return home and again work up to midnight. In evening, they attended different community management work, such as NGO meeting or different motivational work, which is totally voluntary work in the study slum. Both men and women in the study slum expressed that women's work load might be reduced if water is available in the study area.

6.2.5 Evaluate Intervention Aims

This tool helps to examine the most suitable policy approaches for future work. In this case, the study emphasised on gender role in water supply sanitation and hygiene. Therefore, the underlying policy approach was equity approach, as this approach recognises women as active participants in development. It also recognises the triple role of women.

On the other hand, the study also highlights the anti-poverty approach, as women are disproportionately represented among the poorest people; the purpose of the anti-poverty approach is to ensure that poor women move out of poverty by increasing their productivity. This approach recognises the productive role of women and seeks to meet their practical gender need of earning an income, particularly in small-scale, income-generating activities.

6.2.6 Involving Women, and Gender-aware Organizations and Planners, in Planning

All the decision-makers in the study slum were men. Sometimes women were able to exert some influence through the women's association. However, this might not include the community's poorer women. Although some represents in the meeting, their voice have not raised along with men.

6.3 Case Studies

Case Study – 1

Marjina (35) is a garments worker and lives with her husband and one daughter. Her husband is a rickshaw puller and earns around 6000 BDT per month. She earns around 4000 BDT per month. She does all the household work along with her income earning activities.

Every morning she wakes up at 5.30 am. Before going to her workplace she does all the household work, like cleaning, cooking, child caring etc. She walked around 4 km to go to her workplace. Usually she returns home after 8 pm. In that time she buys her daily household grocery. After returning home she again cooks, cleans and takes care of her child and husband. She collects water in morning, when the rash is high. Sometimes she becomes late in her office or sometimes unable to collect water. The situation was worst when she was pregnant, she added. Marjina thought, if water is available in this slum then their productivity might be increased. It also reduces their workload and they pass a happy life.

Case Study – 2

Sufia Khatun, lives in the slum since 15 years. She is 55 years old and works as a midwife in BRAC Health Program in Korail slum. She migrated from Jessore and lives with her three sons. Her husband married another women and stays with his second wife in another place. Her sons are not well educated and depend on their mother. Sufia is the only earning member in her family and bear all the responsibility.

Every day Sufia wakes up very early morning, usually 5-6 am. She does all the household works like cleaning, cooking etc. After that she goes to her workplace, which is situated in the slum. She usually returns home around 2 pm. Sufia collects drinking water from the nearby water points in evening. Sometimes she misses to collect water for her outside work, as she is closely related to health related service, she has to work beyond the working hour. Usually she stores water in used oil jar. She is also an active CBO (Community Based Organization) member of a local NGO named Dustha Shasthya Kendra (DSK). She actively participates in the meetings. However, she does not actively participate in decision making process.

Sufia works sincerely and happy to do this work. Although she earns money, she does not have control over this. Every month her husband comes to her to take her income and if she denies, he tortured her. She said, “I would be happy, if he stays with me. Unfortunately he stays with his second wife with my income”. Her sons also have not taken any responsibility to take care of her. She does not know about her future and worried how to survive when she would be unable to work?

Most of the slum women face situation like this.

Gender analysis found that women in Korail slum are equally carry out their role on productive, reproductive and community management work and they are mainly responsible in household water management along with their productive work. Although they play a strong role in community mobilization in safe water and hygiene promotion; men, especially the elite and influential people have voice and decision making for water management and operation in the study area. Women also have the opportunity to be a paid worker; however, they do not have control over their income. Moreover, sometimes they are subject to violence in this area. They are also vulnerable in case of decision making in household as well as community level.

CHAPTER SEVEN

CONCLUSION AND RECOMMENDATION

7.1 Conclusion

Water is a basic need connected with the very survival of human beings. Lack of safe water and basic sanitation is an acute problem for the women and girls who live in poor and overcrowded urban slums in Bangladesh. Access to safe drinking water is a basic human right and essential for achieving gender equality, sustainable development and poverty alleviation.

- From the study it has been found that the water supply and hygienic condition of the study slum are worsening and people, especially women suffer most due to lack of available water.
- Only 16% household used pipe water for their domestic purposes and remaining 84% use water from open reservoir.
- Their water storage pattern also unhygienic and 48% water storage pots remains uncovered in the study slum. Only 1% household used fitkiri as a disinfectant.
- 22% people of the slum area use open latrine besides lake, however, 18% people use cluster/sanitary latrine, another 34% use twin pit latrine and 26% use ring slab latrine in the study slum
- Only 30% respondent use soap after toilet for hand washing and 48% use only water for hand washing. Remaining 22% does not use anything for hand washing.
- Women are mainly responsible in household water management along with their productive work.
- Gender analysis found that women in the study are equally carry out their role on productive, reproductive and community management work.
- Although women play a strong role in community mobilization in safe water and hygiene promotion, men, especially the elite and influential people have voice and decision making for water management and operation in the study area.

- Women are visualized in the public places, such as in market, small business, shopkeeper, and different outside works, which is encouraging.
- Although women have the opportunity to be a paid worker, they do not have control over their income. They are also vulnerable in case of decision making in household as well as community level.

7.2 Recommendations

Water management must be democratic and transparent and represent the needs of the people, especially women, who are the primary users (collectors) of water throughout the world. It has been found that projects/schemes, in which women and men have an equal say have a better chance for success and sustainability because they address the needs of both. Some of the recommendations from the study are given below:

- Increase supply of safe water in the study area, so that the household, especially women can have safe water sources within favorable or proximal distance for household purpose.
- Provide proper hygienic education to ensure available safe water and sanitation facilities; slum women and children to be the focus of such education.
- Provide poor families with sanitary latrines for overall improvement of the environment. Construction and installation of proper number of sanitary latrines within the area as for community basis sanitation facilities.
- Upgrading of unsanitary latrine to a sanitary latrine to be made as regular program in order to reduce open defecation around the slum. All family members including children to be encouraged to use the latrine properly.
- Consider women's participation and voice in the utilization and management of water resources in the broader context of their access to productive assets and resources.

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APPENDIX - A

An Investigation into Household Water Supply, Sanitation and Hygiene of A Selected Slum with Gender Perspective

Questionnaire for Interview

(All the information provided here would be used for research purpose only.)

Name of the Place:

Date:

1. Name:

2. Age:

3. Occupation & monthly salary:

4. Husband's/wife's occupation and monthly salary:

5. Household member:

6. Religion:

Questions

1. Daily activities.
2. Who does what (husband/wife/boys/girls)?
3. What is the source of drinking water?
4. Is this water used for other purposes (cleaning/ washing/bathing)?
5. If yes/no, why?
6. How far it from your home?
7. What is your water preservation technique?
8. How many times (in a day) spending in water related activities (collect, preserve etc.)?
9. Do you pay for water? If yes how much.
10. Is there any sanitary latrine in your household/community?
11. How you share it?
12. Where/how you dump the household wastes?
13. Who has what (money/ land/ knowledge etc.)?
14. Do you have any micro credit / involved in any NGO/other organizations?
15. If yes, how many times spend in that activity?
16. Who makes decisions about the household (children's education, marriage, etc.) and the use of different assets?
17. Which places you usually go?
18. Do you need any permission?

APPENDIX - B

An Investigation into Household Water Supply, Sanitation and Hygiene of A Selected Slum with Gender Perspective

Questionnaire for FGD

(All the information provided here would be used for research purpose only.)

Name of the Place:

Date:

Questions

1. What is the source of drinking water?
2. Is this water used for other purposes (cleaning/ washing/bathing)?
3. If yes/no, why?
4. Please specify the water preservation technique in this slum.
5. Usually who collect/store water in this slum?
6. How many times (in a day) spending in water related activities (collect, preserve etc.)?
7. Do you pay for water? If yes how much.
8. Is there any sanitary latrine in your household/community?
9. How you share it?
10. Where/how you dump the household wastes?
11. Who does what in a family (husband/wife/boys/girls)?
12. Who has what (money/ land/ knowledge etc.)?
13. Who makes decisions about the household (children's education, marriage, etc.) and the use of different assets?