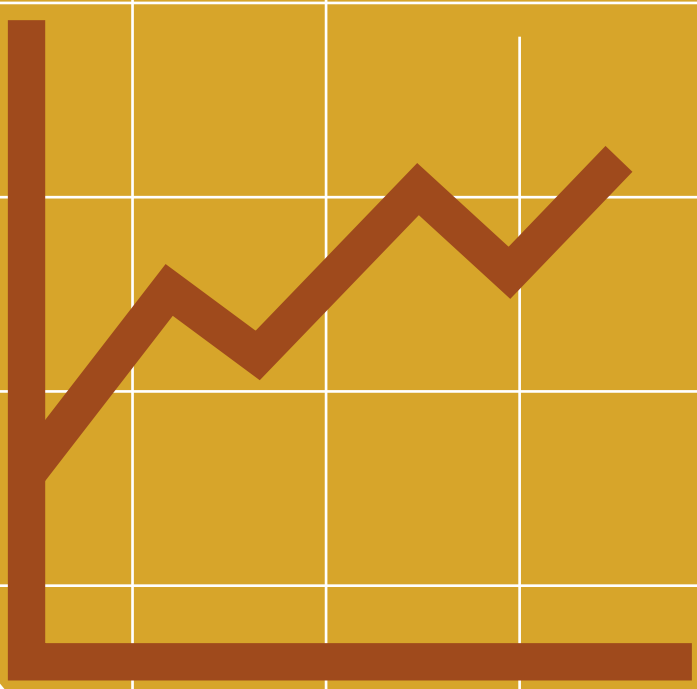
POPULATION MONOGRAPH OF BANGLADESH

HOUSEHOLD AMENITIES AND ASSETS

Population Monograph: Volume-8



Bangladesh Bureau of Statistics
Statistics and Informatics Division
Ministry of Planning

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COMPLIMENTARY

POPULATION MONOGRAPH OF BANGLADESH

HOUSEHOLD AMENITIES AND ASSETS

November 2015

BANGLADESH BUREAU OF STATISTICS (BBS)
STATISTICS AND INFORMATICS DIVISION (SID)
MINISTRY OF PLANNING
GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH

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Minister
Ministry of Planning
Government of the People's Republic of Bangladesh

Message

I am delighted to know that Population and Housing Census 2011 Project of Bangladesh Bureau of Statistics (BBS), Statistics and Informatics Division (SID) has prepared fourteen Population Monographs using the census data of different years. This is the first time BBS is publishing population monographs with in-depth analysis of the population census data. The present monograph on 'Household Amenities and Assets' is one of such monograph series.

Each monograph deals in a particular issue related to population and housing where census data have been used in multidimensional approaches. In addition, cross country comparison and in country comparison have also been made to oversee the representativeness of data with other national sources. It is expected that the monographs will useful in national planning and policy making particularly in the field of population and development.

I would like to thank concerned officials of SID and BBS and also authors of the monographs for their relentless effort in preparing these monographs and publication thereof. Special thanks to European Union (EU) and United Nations Population Fund (UNFPA) for their generous support in conducting 5th decennial census of Bangladesh and preparing the population monographs.

Dhaka
November, 2015

AHM Mustafa Kamal, FCA, MP

State Minister
Ministry of Finance
and
Ministry of Planning
Government of the People's Republic of
Bangladesh

Message

I have come to learn that Population and Housing Census 2011 Project of Bangladesh Bureau of Statistics, Statistics and Informatics Division has prepared fourteen Population Monographs using census data of different years. Population is the main ingredient for national planning and policy making. Therefore, Population Monographs are of vital importance in the field of population planning of the country.

Each monograph has been prepared with a particular issue related to population and housing. To prepare these Monographs census data have been used widely in multidimensional way where secondary data from other sources have also been used. The monographs are a new dimension in the wide use of data generated through national censuses of the country.

My sincere thanks and gratitude to the honorable Minister, Ministry of Planning for his dynamic leadership and active guidance in implementing all our activities including census undertaking. I would like to thank Secretary, Statistics and Informatics Division, Director General, BBS for their relentless effort in preparing these monographs and publication thereof. Special thanks to European Union (EU) and United Nations Population Fund (UNFPA) for their generous support in conducting 5th decennial census of Bangladesh and preparing the population monographs.

Dhaka
November, 2015

M.A. Mannan, MP

Secretary
Statistics and Informatics Division (SID)
Ministry of Planning
Government of the People's Republic of Bangladesh

Foreword

Population Census is the single most important statistical undertaking in any country. Bangladesh Bureau of Statistics of the Statistics and Informatics Division has conducted the 5th decennial census of the country during 15-19 March, 2011. In order to supplement the main census a large scale sample survey was conducted in October 2011 which covered detailed information on Population & Housing. The Monograph on 'Household Amenities and Assets' is mainly based on the findings of main census and sample census conducted during 2011. Data from other secondary sources have also been used to prepare the Monographs.

It may be mentioned that Bangladesh Bureau of Statistics (BBS) has been publishing a number of Population Monograph series and Population Monograph on 'Household Amenities and Assets' is one of the fourteen monographs being published by BBS using Population Census Data. Monographs are the in depth analysis of a particular topic of interest. This population monograph covered the access of households to safe drinking water, lighting system, fuel for cooking, excreta disposal facility, solid wastage management system and ownership of selected household assets.

In light of that, population monograph on 'Household Amenities and Assets' will be useful for proper planning for improving the household amenities of the country.

I like to express my sincere thanks to Director General, Deputy Director General of BBS, Project Director of Population and Housings Census 2011 Project and his team for preparing this Monograph. I acknowledge with gratitude the support of European Union (EU) and United Nations Population Fund (UNFPA) for successful completion of the Population and Housing Census 2011 and preparing the Monographs.

Dhaka
November, 2015

Kaniz Fatema ndc

Director General
Bangladesh Bureau of Statistics (BBS)
Statistics and Informatics Division (SID)
Ministry of Planning
Government of the People's Republic of Bangladesh

Preface

The fifth population and housing census of Bangladesh was conducted during 15th March to 19th March, 2011. The main objective of the census was to collect information on the basic characteristics related to housing, households and population for developing a comprehensive database for development planning and human resource development programmes as well as economic management.

Population and Housing Census 2011 were conducted in three phases. In the First Phase, basic data about all households and individual members of the households were collected through ICR formatted questionnaire during 15th March to 19th March, 2011. In the Second Phase, quality and coverage of the main count were verified through a Post Enumeration Check (PEC) survey during 10th April to 14th April, 2011. For the first time in the census history of Bangladesh, PEC was conducted by an independent organization, namely Bangladesh Institute of Development Studies (BIDS). In the Third Phase, detailed socio-economic information was collected by administering a long machine readable questionnaire in a sample survey held during 15th October to 25th October, 2011.

One of the objectives of the Population and Housing Census 2011 Project was in-depth analysis of census data and preparation of Population Monograph series. Monographs are useful to the users to know the detailed information about the related area for taking appropriate policy measures and further research.

The Population Monograph on 'Household Amenities and Assets' is one of the 14 monograph series which discussed about the current situation of household amenities and assets in the country.

I express my heartfelt gratitude to the Honorable Minister for Planning for his effective guidance and significant cooperation in making the census a success. I express my deepest gratitude to Secretary, Statistics and Informatics Division (SID) for her whole-hearted support and cooperation to the census. Moreover, members of 'Steering Committee', 'Standing Technical Committee', Consultants and the participants of the Seminar-cum-Expert Consultation deserve special thanks for their valuable contributions for finalizing the questionnaire and the census programme. I am thankful to Mr. Md. Shamsul Alam, Consultant and other officials of the project for preparing this monograph. Thanks to European Union (EU) and United Nations Population Fund (UNFPA) for their technical and financial support to the Population and Housing Census 2011 Project.

Finally, I like to thank Deputy Director General, BBS, Project Director, Population and Housing Census 2011 Project, members of the Technical Committee and other officers & staff members of BBS for bringing out this monograph.

Dhaka
November, 2015

Mohammad Abdul Wazed

Representative
UNFPA Bangladesh

Message

This report is part of a series of 14 monographs developed by the Bangladesh Bureau of Statistics (BBS) with support from the United Nations Population Fund (UNFPA). UNFPA has supported the BBS since the very first census in 1974, a cooperation that has grown stronger with each census. Through the "Support to 2011 Bangladesh Population and Housing Census" project UNFPA has been working closely with the BBS to ensure that best use is made out of the resources invested in the census. The project has put a major emphasis on in-depth analysis of census data and the production of thematic reports in the form of these monographs. This series will provide its readers a better and clearer understanding of the trends, the current country scenarios and the gaps indicating where targeted interventions are necessary.

The availability of quality, reliable and timely data, as well as a thorough, methodologically sound and user-friendly analysis of data is more important than ever before. The information generated by population and housing census, the numbers of people, their distribution, their living conditions, are all critical for development. Without accurate data, policymakers do not know where to invest in schools, hospitals or roads and the most in need remain invisible. The implementation and monitoring of the Sustainable Development Goals, the guiding framework for the development agenda 2030, will require the production and analysis of a large amount of data, big data, requiring strong and independent National Statistics Offices, which UNFPA will continue to support.

I would like to take this opportunity to congratulate and thank the Statistics and Informatics Division and the Bangladesh Bureau of Statistics' authority and the project team for their efforts to produce this series, as well as the experts who contributed to the development of the monographs. My special gratitude goes to the Delegation of European Union in Bangladesh for their generous support and co-operation in implementing the "Support to Bangladesh Population and Housing Census 2011" project and in the preparation of these monographs.

Dhaka
November, 2015

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Ministry of Planning

Acknowledgements

It is my great pleasure to acknowledge the contributors who were engaged in preparing the fourteen Population Monographs of Bangladesh under Population and Housing Census 2011 Project of Bangladesh Bureau of Statistics (BBS). This initiative of BBS is a new dimension with regard to the wide use of census data in the country and the abroad.

Monographs have been prepared by the BBS in collaboration with public universities, research organizations and a local consultant of this project. A series of review meetings were organized to finalize the draft monographs.

I would like to express my profound regards and deep sense of gratitude to the Secretary, Statistics and Informatics Division (SID) and Director General, Bangladesh Bureau of Statistics for their valuable suggestions, continuous guidance and all out support in smooth completion of all the activities of this project and bringing out the population monographs.

It is worth mentioning that European Union (EU) has provided generous support in the implementation of the Population and Housing Census 2011 Project. I take the opportunity to express my indebtedness to United Nations Population Fund (UNFPA) for the partnership of this project of BBS.

I am extremely grateful to the institutions and the authors who were engaged in preparing the monographs. My sincere thanks to Mr. Nicholas Jhon Mcturk, Technical Expert on Population Development, Asia and the Pacific Regional Office, Dr. Chrisophe Lefrance, Technical Advisor, Population and Development, UNFPA Regional Office and the local consultant of this project Mr. Md. Shamsul Alam for their whole hearted co-operation in the preparation of monographs.

Thanks are also due to Mr. Iori Kato, Deputy Representative, Dr. Shantana R. Halder, Chief PPR and Mr. Mahboob-E-Alam, NPO, UNFPA for their kind support and help. I am grateful to Mr. Md. Mostafa Ashrafuzzaman, Deputy Director, Mr. Md. Khorshed Alam, Assistant Statistical Officer, Mr. Mohammad Abdullah, Assistant Statistical Officer and all other officials of Population and Housing Census 2011 project of BBS who worked hard to conduct the census and to prepare the monographs.

Dhaka
November, 2015

Md. Mashud Alam

Executive Summary

At the very beginning of the study some cross country comparison and in country trend analysis have been made to observe the current scenario of housing facilities of Bangladesh.

The cross country comparison on housing facilities shows that there exists differences in sources of drinking water among Bangladesh, India & Nepal. In India, hand pump is the main source of drinking water (33.5%) followed by tap water from treated sources (31.9%) and tap water from non-treated sources (11.6%). In case of Nepal, tap/piped water is the highest (48.1%) followed by tube well (35.3%). In Bangladesh tube well is the dominant source of drinking water where as many as 89.1% use this source.

In case of distance of water source, it is seen that in Bangladesh 60.7% have water source inside dwelling as against 46.6% in India. The main source of lighting is electricity in all the three countries namely Bangladesh, India and Nepal. In Bangladesh 56.6% have access to electricity in 2011 and such percentage for India was 67.3% and 66.7% for Nepal for the same period.

Wood is the main source of cooking in all the three countries Bangladesh, India, & Nepal. The corresponding percentages were 34.8%, 49.0% & 64.4% respectively. Gas/LPG is used by 12.7% households in Bangladesh, 28.5% in India & 21.2% in Nepal.

The in country comparison of some selected housing facilities such as sources of drinking water, sources of lighting and fuel for cooking obtained from censuses, BDHS and SVRS for the same period show similarity in these three sources. The trends over time for these facilities obtained from census and sample census (post census long questionnaire survey) show tremendous progress in the use of modern facilities.

The information pertaining to household amenities and assets collected in the post census long questionnaire survey (Sample census) shows that access to tap water to the households are still very limited. Only 2.1% rural household and 32.9% urban households have such facilities. Tube- well was observed as the main source of water supply both in urban and rural area. As high as 84.6% rural households and 66.2% urban households use tube well water for drinking purposes. As regards socio-economic differentials in the use of drinking water it is found that household with literate head, higher level of education, female member owning land have improved water source.

Use of boiled/bottled/filtered water was found to be used by 7.8% households at the national level, 2.9% households in the rural area and 27.8% household in the urban area. Use of these treated water was found higher in the households with literate head, head having higher level of education, female member owning land and remittance receiving households. The use of boiled/bottled/filtered water was found higher in the urbanized zilas compared to non-urbanized zilas.

Regarding the distance to water source, it is observed from the survey that at the national level 60.7% have water source inside dwelling. In the rural area such percentage is 57.6% and in the urban area 73.6%. Water source within 200 meters was 31.6% at the national level,

33.78% for the rural area and 22.8% in the urban area. Water source at a distance within 200 meters was found higher in northern zilas compared to southern zilas of Bangladesh. Water source inside dwelling was found higher for male headed households, households with literate head, head with higher level of education, female member owning land, remittance receiving households and non-slum households.

As regards toilet facilities of the households at the national level, 27.8% have sanitary toilet with water seal. Such percentages were 22.9% in the rural area and 48.2% in the urban area. About one third household in both urban and rural areas reported to have sanitary toilet without water seal. There exists wide variation in the use of sanitary toilet with water seal among the zilas of the country. The percentage of households with higher percentage of sanitary toilet with water seal facilities were observed in households with male head, literate head, head with higher level of education, female member owning land, remittance receiving household and non-slum household.

As regards disposal of solid waste, unmanaged dustbin was dominant in rural area whereas managed dustbin was found in higher percentage in the urban area. For the rural area 55.3% household disposes their solid waste in the managed dustbin whereas in the urban area 47.9% household use managed dustbin for disposal of solid waste. The use of managed dustbin was observed in higher proportion in the urbanized zilas compared to non-urbanized zilas. Managed dustbin for disposal of solid waste was found at a higher percentage for male headed household, household with literate head, household with higher level of education, household with female member owning land and remittance receiving household.

In the recent year, the access of electricity has increased tremendously in the context of Bangladesh. During the Census (2011) 56.8% households reported the use of electricity, 3.3% reported to use solar energy and the rest used kerosene and other source. The use of electricity was reported to use by 48.8% household in the rural area and 88.7% households in the urban area. Solar energy was reported to use by 4.0% rural household. Like other socio-economic variables the use of electricity was found at a higher percentage in the urbanized zilas. Use of electricity was also higher in case of male headed household, household with literate head, head with higher level of education, female member owning land and remittance receiving households.

Regarding the use of fuel for cooking, the traditional fuel still dominate in the country. Solid fuel like straw/dried cow dung was found to be used by 51.2% households. Such percentage for rural area was 59.1% and urban area 18.4%. Solid fuel like wood was used by 34.8% household in the national level, 35.1% in the rural area and 33.4% in the urban area. Gas/LPG was reported to use by 12.7% households at the aggregate level, 4.5% in the rural area and 46.9% in the urban area. It is notable that wood was used in higher percentage in the zilas where availability of trees are higher and straw/dried cow dung was widely used in the northern zilas. Use of gas/LPG was found low in the northern and western zilas of the country and high in eastern and southern zilas. The use of modern fuel like gas/LPG was found at a higher percentage in the household with male head, literate head, head with higher level of education, household with female member owning land and remittance receiving households.

Access to print and electronic media shows that on an average 0.57 male member and 0.10 female members have access to newspaper. Only 0.08 male member and 0.09 female member listen to radio, 1.01 male member and 0.95 female member view television and 0.04 male and 0.01 female use internet at the national level. The use of these print and electronic media varies widely with the residence and socio-economic characteristics of the household heads like literacy, level of education, female member owning land and access to remittance. Those heads who are literate, have higher level of education & household where female member owned land and those who have access to remittance have higher access to print and electronic media.

Ownership of household assets was reported by household with wide variation among zilas. It is praise worthy that more than three forth of household reported to have mobile phone and about one fifth have bicycle. More than one third household reported to own television and one fifth household have dish antenna. Ownership of computer, fridge/deep fridge, dish antenna, mobile, bus/truck/motor car, scooter/CNG/auto rickshaw was reported to be higher among urban household compared to their rural counterpart. Ownership of modern articles like mobile, television, dish antenna, computer etc. was reported at a higher percentage for households with male head, literate head, head with higher level of education, households with female member owning land and remittance receiving households. Variation in the ownership of assets also varies by zilas by the economic condition as well as geographic condition. The ownership of boat was higher in the coastal zilas whereas ownership of bicycle and motorcycle was higher in the zilas where communication networks are well-off.

1. INTRODUCTION

House is one of the basic needs of human beings. Over the years, housing amenities improved to a great extent. The housing facilities and amenities is influenced by local environment and affordability of the households to have such facility. Housing condition and housing facilities also focuses the economic condition of the household.

In the context of Bangladesh, the first Housing Census was held in 1973 before the Population Census of 1974. Thereafter, Housing Censuses were conducted with the Population Census simultaneously since 1981 and this tradition continued up to 2011. Some basic housing questions are generally covered in main census and detailed housing questions are covered in the post Census Large Scale Demographic Survey termed as Sample Census.

In Sample Census 2011 a large number of information related to housing facilities were covered. The information on housing facilities that were covered in the sample census include, source of drinking water, use of boiled/bottled/filtered water, distance of water source type of toilet, disposal of solid waste, source of lighting, cooking fuel, access to print and electronic medias like newspapers, radio, television, internet etc. The Sample census 2011 also included questions on the ownership of house by sex, ownership of bull/buffalo cart, push cart/rickshaw/van, bicycle, motorcycle, motor car/bus/track, scooter/CNG/auto rickshaw, telephone, mobile, sewing machine, television/radio/transistor, dish antenna, computer, fridge/deep fridge. This report is based mainly on sample census 2011 and data provided in chapters 4 to 11 refers to 2011.

It may be mentioned that, the housing facilities depends on other socio-economic factor like headship rate, education level and literacy of head, landownership, access to remittance . There exist variation by geographic location in housing facilities. As gas connection is not extended to some south and western zilas of the country, therefore, use of gas in these zilas should me much less than the zilas where gas connection already exists.

The housing facilities that has direct bearing on the socio-economic characteristics of the head is of vital importance for policy point of view as government intervention should be developed for the improvement of the socio-economic condition of the member which will help in the improvement of housing condition and household facilities across the country.

In order to compare the housing facilities of the neighboring countries cross country comparison has been made. Moreover, in country comparison with other data sources and trends over time have been discussed in chapter-3. The comparison over the period indicates considerable improvement of housing facilities over last three decades.

2. CONCEPTS & DEFINITIONS

Main Source of Drinking Water: A household may drink water from several source but information on main source of drinking water has been collected. The main source of drinking water include- tap, tube well/deep tube well, pond, river/ditch/canal and other than these source.

Use of Boiled/Bottled/Filtered Water: Currently the use of boiled/bottled/filtered water has increased in Bangladesh. But there is no reliable information on the use of these source. Therefore, use of such source has been collected in the sample census-2011.

Distance to Source of Water: Many households in rural and urban area collect water for drinking and other use from distance places. To measure these phenomenon question regarding to source of water has been included in sample census 2011. Three categories have been used in this case which include water source inside house, water source within 200 meters and water source more than 200 meters.

Type of Toilet: Type of toilet is an important housing facility to protect members from communicable diseases. Four distinct category of toilet have been included in the sample census questionnaire. These are sanitary with water seal, sanitary without water seal, non sanitary/kutcha and open space. Sanitary water sealed latrine are those latrines which contain water on the commode. Sanitary without water sealed are those latrines which do not contain water in the commode. Non sanitary/kutcha latrines are those latrines in which there is no protective measures to cover the excreta. These latrines may be pucca, semi-pucca or kutcha. Open space are also used by some households for excreta disposal.

Disposal of Solid Waste: Solid waste is defined as the decomposable and non decomposable wastes. Decomposable wastes are the wastes from vegetables, fish, meat and non decomposable wastes include plastic bottle, iron bars etc. If the solid wastes are dumped in a particular dumping place of the city Corporation/Paurashava or any committee then it is treated as managed dustbin, if the solid waste is dumped haphazardly elsewhere then it is termed as unmanaged dumping place. If the solid wastes are buried inside any pit/ditch then it is termed as waste management by burying and if the solid wastes are burred then it is classified as burning.

Source of Lighting: Source of lighting in the household has been classified in five categories. The general use of these sources has been treated as the source. Occasional use of certain source has been ignored. The connection of electricity is considered whether there is meter or not.

Fuel for Cooking: The use of fuel for cooking has been classified into six categories namely- wood, kerosene, gas/ LPG, electricity, straw/leaves/dried cow dung & bio-gas. The maximum use of any fuel has been treated as the use of that fuel by the household.

Household Access to Radio, Television and Internet & Newspaper: The number of members using radio, television, internet & newspapers by sex have been collected in the sample census.

Ownership of Land by Sex: The ownership of land by sex of the member of the households has been collected for the first time in sample census. This will facilitate to know the extent of land ownership by female members of the household.

Ownership of Selected Household Assets: Ownership of selected household assets which is useful for household for smooth running of day to day activities of the households smoothly and also for income generation have been collected in the sample census. The items that have been included are boat, bull/buffalo cart, push cart/rickshaw/van , bicycle, motorcycle, motorcar/bus/truck, scooter/CNG auto rickshaw, telephone, mobile, sewing machine, television/radio/transistor, dish antenna, computer fridge/deep fridge etc.

3. LITERATURE REVIEW ON HOUSING FACILITIES

Housing facilities across neighboring countries and within country are presented in this chapter.

The neighboring countries are India and Nepal. In case of Bangladesh, data obtained from Sample Vital Registration System (SVRS) & Bangladesh Demographic and Health Survey (BDHS) have been discussed. It may be noted that the facilities that are discussed are sources of drinking water, distance of drinking water source, source of lighting and fuel for cooking. It may be noted that the type of sources of drinking water, sources of lighting and fuel for cooking are not similar in these countries. Therefore, it is difficult to compare and discuss similar items. Yet through this comparison, an ides can be obtained about the position of Bangladesh in terms of these facilities compared to the neighboring countries.

A: CROSS COUNTRY COMPARISON

3.1 Sources of Drinking Water in India, Nepal and Bangladesh

The source of drinking water in India, Nepal and Bangladesh has been presented in Table-3.1. The types of sources are not same in all the three countries. Therefore, it is presented separately. In case of India tap water is supplied from two sources; treated source and untreated sources, but in Bangladesh & Nepal such information is not available. The type of well in India and Nepal are of two types covered and uncovered but such category is not is not available in Bangladesh.

It is seen from the table that 31.9% households of India as a whole use tap water from treated source and such percentage are 17.9% and 62.0% in the rural and urban area. Tap water from untreated source are used by 11.6% at the aggregate level 13.0% in the rural area and 8.6% in the urban area. In case of Nepal 48.1% have access to tap water at the national level and such percentages are 45.3% and 59.6% respectively in the rural and urban area. In Bangladesh the access to tap water are much lower than India & Nepal. Only 8.1% have access to tap water and such percentage for rural and urban area are 2.1% and 32.9% respectively. It is notable that urban-rural differential in the use of tap water is well pronounced in Bangladesh compared to India & Nepal. Wide use of tube well water may be reason for such low use of tap water in Bangladesh. In case of India, the second highest source of drinking water is hand pump which is reported to use by 33.5% household at the aggregate level, 43.6% in the rural area and 11.9% in urban area. In case of Nepal, 35.3% households reported to use tube well water at the aggregate level and such percentage were 37.9% and 24.7% in rural and urban area of the country. In Bangladesh use of tube well is almost universal. It is used by 89.1% households at the national level, 94.6% households of the rural area and 66.2% households in the urban area.

In India 8.5% households at the national level use tube well/borehole water for drinking and such percentage in rural and urban area are 8.3% and 8.9% respectively. In Nepal,another

important source of drinking water is spout, which is reported as the source of water for 5.8% households at the national level and 6.5% and 2.9% in the rural and urban area respectively. In Bangladesh the sources of drinking water other than tube well and tap are insignificant.

Table3.1: Sources of drinking Water of Bangladesh India and Nepal-2011

Sources of Drinking Water	India		
	Total	**Rural**	**Urban**
Total	100.0	100.0	100.0
Tap water from treated source	31.9	17.9	62.0
Tap water from un-treated from	11.6	13.0	8.6
Covered well	1.6	1.5	1.7
Un-covered well	9.4	11.8	4.5
Hand pump	33.5	43.6	11.9
Tube well /bore hole	8.5	8.3	8.9
Spring	0.5	0.7	0.2
River/canal	0.6	0.8	0.2
Tank/pond/lake	0.8	1.1	0.4
Other sources	1.5	1.4	1.7
	Nepal		
Total	100.0	100.0	100.0
Tap/piped	48.1	45.3	59.6
Tube-well	35.3	37.9	24.7
Covered well	2.5	2.2	3.4
Un-covered well	4.7	5.5	1.7
Spout	5.8	6.5	2.9
Rivers/stream	1.1	1.3	0.3
Other	2.5	1.3	7.4
	Bangladesh		
Tap	8.1	2.1	32.9
Tube well	89.1	94.6	66.2
Well	0.7	0.8	0.2
Pond	1.3	1.5	0.3
River/	0.4	0.4	0.2
Other	0.5	0.6	0.2

3.2 Distance of Water Source from Dwelling, Bangladesh & India

Distance of water source from dwelling in Bangladesh and India can be seen from Table-3.2. It is observed from the table that in case of India, at the national level, 46.6% households have water source within premises and such percentage for rural and urban area are 35.0% and 71.2% respectively. Water source near premises (without assigning any distance) is reported by 35.8% household at the aggregate level 43.0% in the rural area and 20.7% in the urban area. Water source away from households was reported by 17.6% households at the national level 22.0% in the rural area and 8.1% in the urban area.

In case of Bangladesh, the tabulation category was not the same as India, however, it is more or less comparable. In Bangladesh, 60.7% households reported the water source inside dwelling and such percentages were 57.6% and 73.6% for the rural and urban area of the country. Water source within 200 meters (which may be comparable to near premises of India) is reported by 31.6% households at the aggregate level, 33.8% for the rural area and 22.8% in the urban area. Water source at a distance more than 200 meters was reported by 7.7% households at the national level 8.7% in the rural area and 3.7% in the urban area.

Table3.2: Distance to Sources of Water for Bangladesh and India 2011

Distance/ Location of Water Source	India		
	Total	Rural	Urban
Within Premises	46.6	35.00	71.2
Near Premises	35.8	43.0	20.7
Away	17.6	22.0	8.1
	Bangladesh		
Inside dwelling	60.7	57.6	73.6
Within 200 meters	31.6	33.8	22.8
More than 200 meters	7.7	8.7	3.7

3.3: Source of Lighting in Bangladesh, India and Nepal

Source of lighting in the households of Bangladesh, India and Nepal is compared in Table-3.3 . The lighting sources are well compared among these countries. At the national level 56.6% households (2011) reported to have access to electricity in Bangladesh and such percentages for the same period in India and Nepal were 67.3% and 66.7% respectively. In the rural area of Bangladesh, India & Nepal such percentages were 48.8%, 55.3% and 61.2% respectively. For the urban area of these countries the corresponding percentages were 88.7% for Bangladesh, 92.7% for India and 94.8% in Nepal. The second highest source of lighting was kerosene in all the three countries.

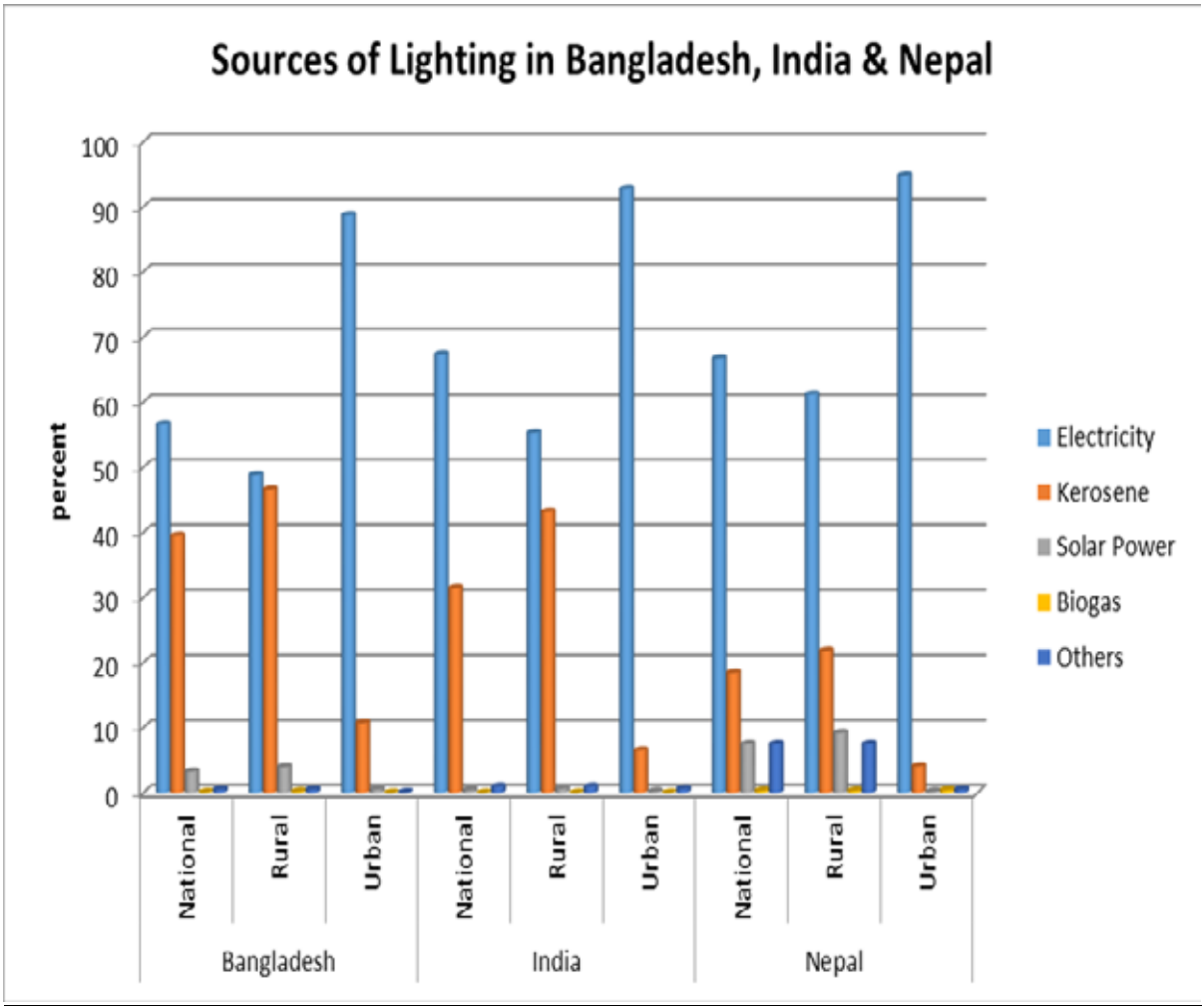
In Bangladesh 39.5% households at the national level used kerosene as the source of lighting and such percentages for India and Nepal were 31.4% and 18.4% respectively. In case of rural area, the percentages of the use of kerosene for Bangladesh, India and Nepal were 46.6%, 43.2% and 21.8% respectively. In the urban area, the percentages of the kerosene

users were 10.7%, 6.5% and 4.1% in India, Bangladesh & Nepal. The use of solar energy was reported by 7.5% households of Nepal and 3.3% households of Bangladesh & only 0.4% households of India. The other sources were insignificant.

Table 3.3: Source of Lighting by Neighboring Countries and Bangladesh, 2011

Sources of Lighting	Bangladesh			India			Nepal		
	National	Rural	Urban	National	Rural	Urban	National	Rural	Urban
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Electricity	56.6	48.8	88.7	67.3	55.3	92.7	66.7	61.2	94.8
Kerosene	39.5	46.6	10.7	31.4	43.2	6.5	18.4	21.8	4.1
Solar energy	3.3	4.0	0.5	0.4	0.6	0.2	7.5	9.2	0.2
Biogas	0.1	0.2	0.0	0.0	0.0	0.0	0.3	0.3	0.4
Others	0.5	0.5	0.1	0.9	0.9	0.6	7.5	7.5	0.5

Figure-1: Sources of Lighting in Bangladesh, India and Nepal, 2011



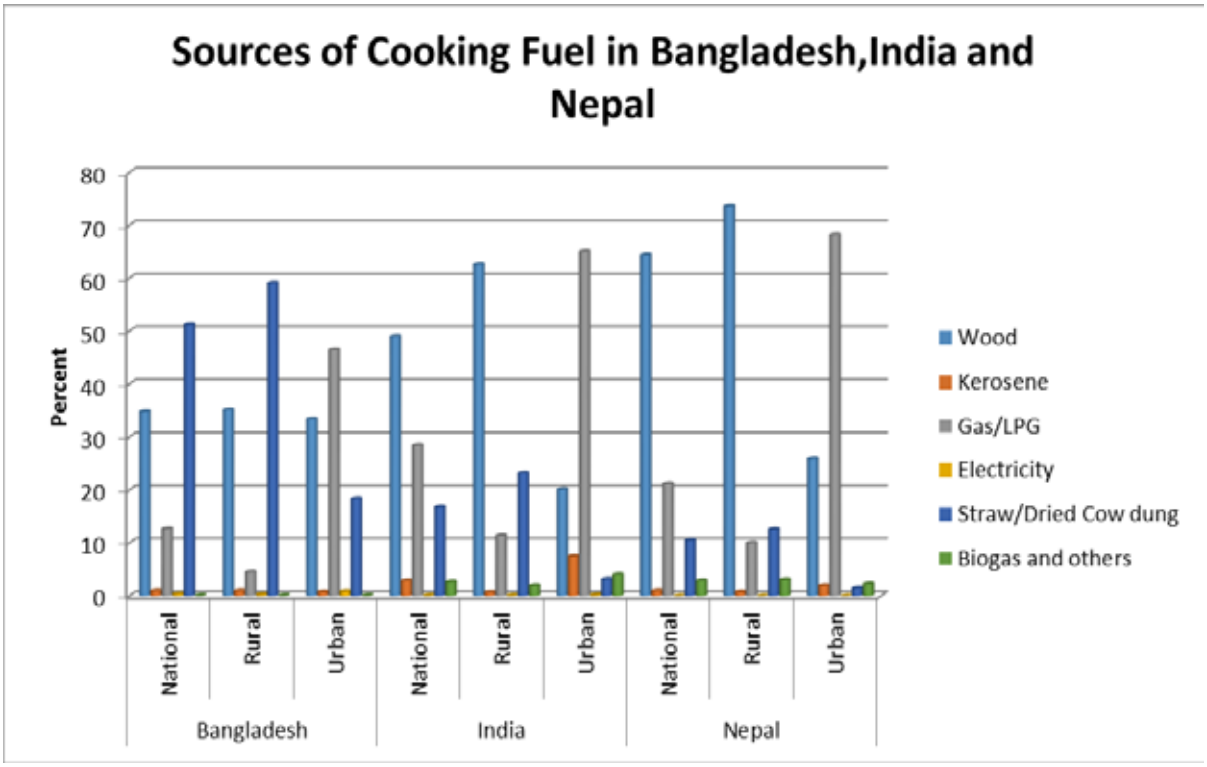
3.4 : Use of Fuel for Cooking in Bangladesh, India & Nepal

The use of fuel for cooking in the three countries shows that solid fuel is the dominant source for cooking fuel (Table3.4). In Bangladesh 34.8% households use wood for cooking purpose and such percentage are 49.0% for India and 64.4% for Nepal respectively. The availability of wood in Nepal may be responsible for higher use of wood as cooking fuel in the country. There exists urban rural variation in the use of wood in all the three countries. In Bangladesh the rural urban percentages of the use of wood are 35.1% and 33.4%, India 62.6% & 20.1% and Nepal 73.6% and 25.9% respectively. Straw/dried cow dung is another important source of fuel in these countries. In Bangladesh 51.2% household use this fuel for cooking and India & Nepal the percentages are 16.8% and 10.5% respectively. There also rural-urban variation in the use of such fuel in all the three countries. The modern fuel gas/LPG is used by 12.7% households of Bangladesh, 28.5% households in India and 21.2% households of Nepal. The use of gas/LPG is higher in urban area compared to rural area in all the three countries.

Table 3.4: Use of Cooking Fuel by Neighbouring Countries and Bangladesh, 2011

Type of Cooking Fuel	Bangladesh			India			Nepal		
	National	Rural	Urban	National	Rural	Urban	National	Rural	Urban
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Wood	34.8	35.1	33.4	49.0	62.6	20.1	64.4	73.6	25.9
Kerosene	1.0	1.0	0.8	2.9	0.7	7.5	1.0	0.8	2.0
Gas/LPG	12.7	4.5	46.5	28.5	11.4	65.0	21.2	10.0	68.2
Electricity	0.4	0.3	0.9	0.1	0.1	0.2	0.0	0.0	0.0
Straw/Dried Cow dung	51.2	59.1	18.4	16.8	23.2	3.2	10.5	12.6	1.5
Biogas and others	0.1	0.1	0.1	2.7	2.0	4.0	2.9	3.1	2.3

Figure-2: Sources of Cooking Fuel in Bangladesh, India and Nepal



B: IN COUNTRY COMPARISON AND TRENDS OVER TIME

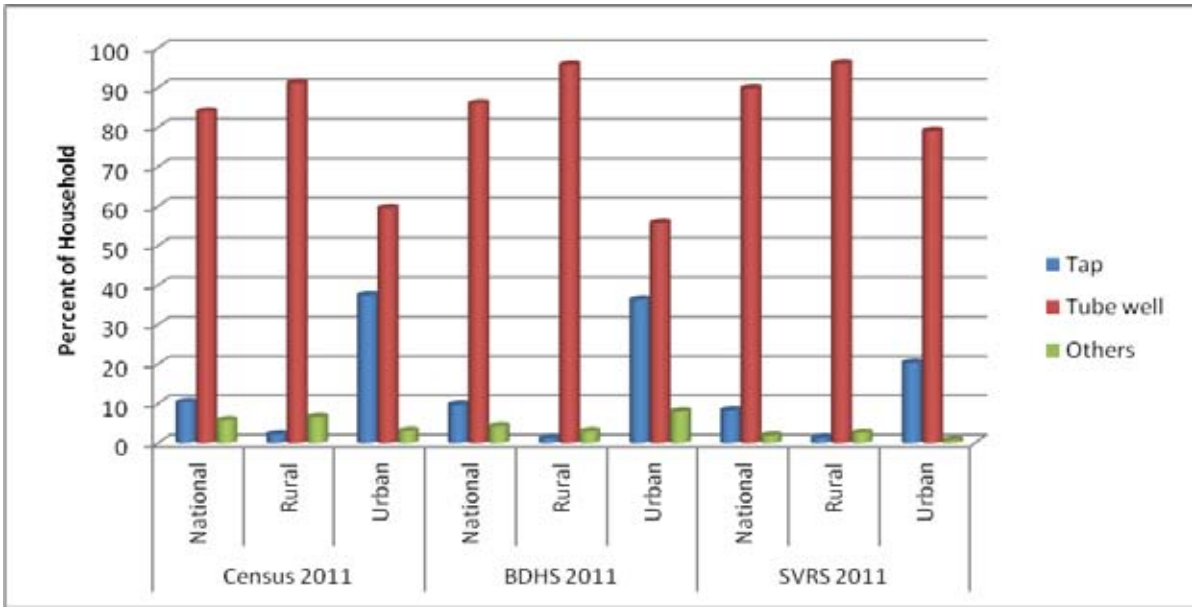
3.5 Source of Drinking Water in Census 2011, BDHS-2011 and SVRS-2011

Information on Sources of drinking water obtained from three sources shows that use of tap water is a bit high in census compared to SVRS and BDHS. The difference in urban area in case of SVRS is much pronounced than the difference between census & BDHS. Use of tube well water of national and rural level shows some differences among these three sources, but for the urban the difference between census & BDHS are narrower than SVRS. The parentages from these three source are 59.5% for census 55.7% for BDHS and 79.0% for SVRS respectively. The other sources like pond/tank/river/stream etc are also high in census than BDHS and SVRS. It can be borne in mind that census data cannot be directly comparable with survey data but some indication can be obtained through this comparison.

Table 3.5: Source of Drinking water in 2011 in Census, BDHS and SVRS

Source of Water	Census 2011			BDHS 2011			SVRS 2011		
	National	Rural	Urban	National	Rural	Urban	National	Rural	Urban
Tap	10.3	2.2	37.4	9.7	1.2	36.3	8.3	1.3	20.3
Tube well	83.9	91.1	59.5	86.0	95.8	55.7	89.8	96.1	79.0
Other	5.8	6.6	3.1	4.3	3.0	8.0	1.9	2.6	0.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Figure-3: Sources of Drinking Water in Census 2011, BDHS 2011 and SVRS 2011



3.6 Sources of Drinking Water 1981-2011

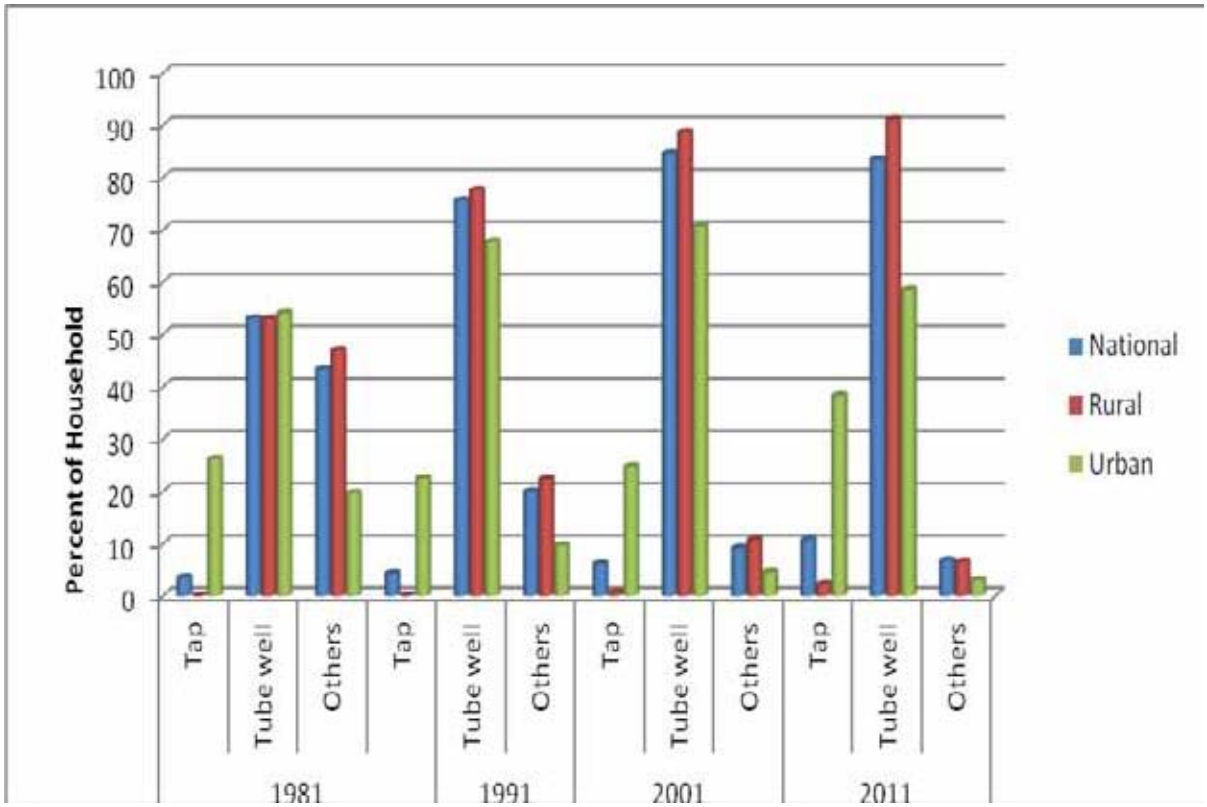
Sources of drinking water from 1981-2011 has been presented in Table3.6. Three sources has been included is namely tap, tube well and others. It is observed from the table that substantial improvement has taken place in access to safe drinking water over the years. In 1981 the percentage of households used tap water at the national level was only 3.6% where it increased to 10.7% in 2011. Households who used tube well water was 53.1% in 1981 which increased to 83.5% in 2011. The other source of water like well, pond, river/stream/canal etc decreased to a large extent. In 1981 such sources were 43.3% which reduced to only 6.8% in 2011. Access to safe drinking water increased both in urban and rural area during the period.

Table3.6: Source of Drinking Water in 1981-2011

Year/ Residence	Sources of Drinking Water		
	Tap	Tube well	Others
1981			
National	3.6	53.1	43.3
Rural	0.0	53.0	47.0
Urban	26.2	54.1	19.7
1991			
National	4.3	75.7	20.0
Rural	0.1	77.6	22.3
Urban	22.5	67.8	9.7
2001			
National	6.1	84.6	9.2
Rural	0.6	88.7	10.7
Urban	24.8	70.7	4.5
2011			
National	10.7	83.5	6.8
Rural	2.3	91.1	6.6
Urban	38.3	58.6	3.1

N.B: Others include well, pond, river/stream/canal etc.

Figure-4: Sources of Drinking Water in Different Years by Residence



3.7 Sources of Lighting from Sample Census, SVRS and BDHS

Information on the source of lighting obtained from sample census -2011, SVRS-2011 and BDHS-2011 shows that the access to electricity reported in three source are sample census 56.6%, SVRS-63.6% and-BDHS 59.6% (Table 3.6). For the urban area the rates are 88.7%, 87.0% and 90.2% respectively from sample census, SVRS and BDHS. In case of rural area that rates are 48.8%, 50.00% and 49.3% respectively. Keroene is the 2nd highest source of lighting in the country. In the rural years solar energy and bio-gas are also being used by some households.

Table3.7: Sources of Lighting from BDHS, SVRS and Sample Census 2011.

Sources of Lighting	Sample Census 2011			SVRS-2011			BDHS-2011		
	National	Urban	Rural	National	Urban	Rural	National	Urban	Rural
Electricity	56.6	88.7	48.8	63.6	87.0	50	59.6	90.2	49.3
Kerosene	39.5	10.7	46.6	34.5	11.2	48.1	----	----	----
Others**	3.9	0.6	4.6	1.9	1.9	1.9	40.4*	9.8*	50.7*
Total	100	100	100	100	100	100	100	100	100

*Includes Kerosene & Others

** Others include solar energy, biogas & others

3.8 Sources of Lighting,1982-2011

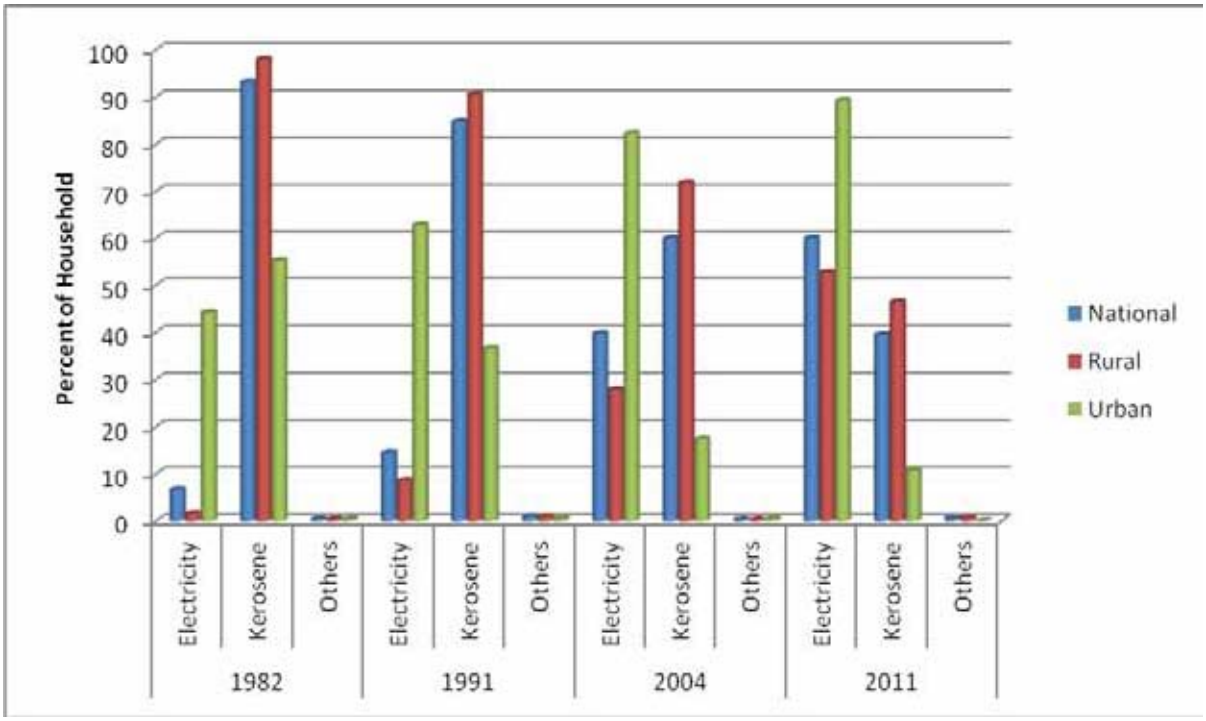
The sources of lighting in the households from 1982 to 2011 obtained from sample census have been presented in Table-3.8. It is observed that access to modern system of lighting that is electricity increased almost 10 times than the position in 1981. It was only 6.6% in the national level in 1982 which increased to 59.9% in 2011 including solar energy and bio-gas. In the rural area it increased from 1.6% in 1981 to 52.8% in 2011. In the urban area it increased from 44.3% in 1981 to 89.2% in 2011.

Table3.8: Sources of Lighting in 1982-2011

Year/Residence	Source of Lighting			
	Total	Electricity	Kerosene	Others
1982 (Sample Census)				
National	100.0	6.6	93.1	0.4
Rural	100.0	1.6	98.0	0.4
Urban	100.0	44.3	55.3	0.4
1991 (Sample Census)				
National	100.0	14.4	84.7	0.9
Rural	100.0	8.6	90.5	0.9
Urban	100.0	62.8	36.7	0.5
2004 (Sample Census)				
National	100.0	39.8	59.9	0.3
Rural	100.0	27.9	71.8	0.3
Urban	100.0	82.2	17.4	0.4
2011 (Sample Census)				
National	100.0	59.9	39.5	0.6
Rural	100.0	52.8	46.5	0.7
Urban	100.0	89.2	10.7	0.1

NB= In 2011 Electricity includes solar energy & others.

Figure-5: Sources of Lighting in Different years



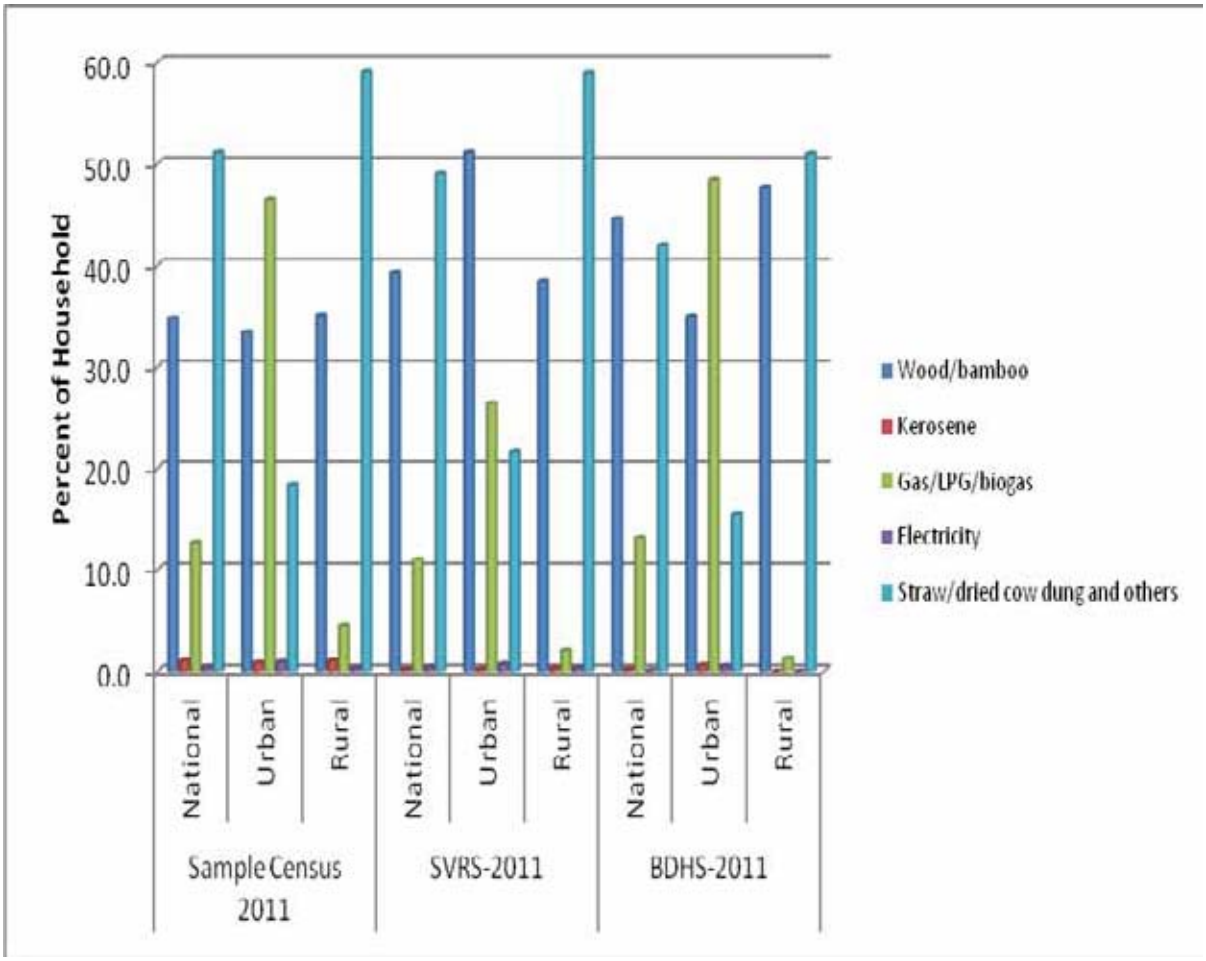
3.9 Main Source of fuel used for Cooking from Sample Census, SVRS and BDHS

The information on the sources of fuel used for cooking obtained from sample census, SVRS and BDHS has been presented in Table-3.9. Wood/bamboo as a source of fuel reported by 34.8% households in sample census, 39.3% households in SVRS and 44.6% households in BDHS. The percentage of households using such sources show higher rate in BDHS. In case of the use of gas/LPG/bio-gas the percentage of households reported using such sources were 12.7% in sample census 11.0% in SVRS and 13.1% in BDHS. It is notable that percentages reported in sample census and BDHS are very close but differs from SVRS. The other dominant source of fuel straw/dried cow dung other reported by 51.1% households in sample census, 49.1% in SVRS and 42.0% in BDHS. These exists urban-rural variation in use of these sources among of sample census, SVRS and BDHS. The rates of BDHS are lower than the other two sources.

Table 3.9: Main Source of Fuel used for Cooking from BDHS, SVRS and Sample Census 2011

Sources of Fuel	Sample Census 2011			SVRS-2011			BDHS-2011		
	National	Urban	Rural	National	Urban	Rural	National	Urban	Rural
Wood/bamboo	34.8	33.4	35.1	39.3	51.1	38.4	44.6	35.0	47.7
Kerosene	1.0	0.8	1.0	0.2	0.2	0.3	0.2	0.6	0.0
Gas/LPG/biogas	12.7	46.5	4.5	11.0	26.4	2.0	13.1	48.4	1.3
Electricity	0.4	0.9	0.3	0.4	0.7	0.3	0.1	0.5	0.0
Straw/dried cow dung and others	51.1	18.4	59.1	49.1	21.6	59.0	42.0	15.5	51.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Figure-6: Sources of Cooking Fuel from Different Sources



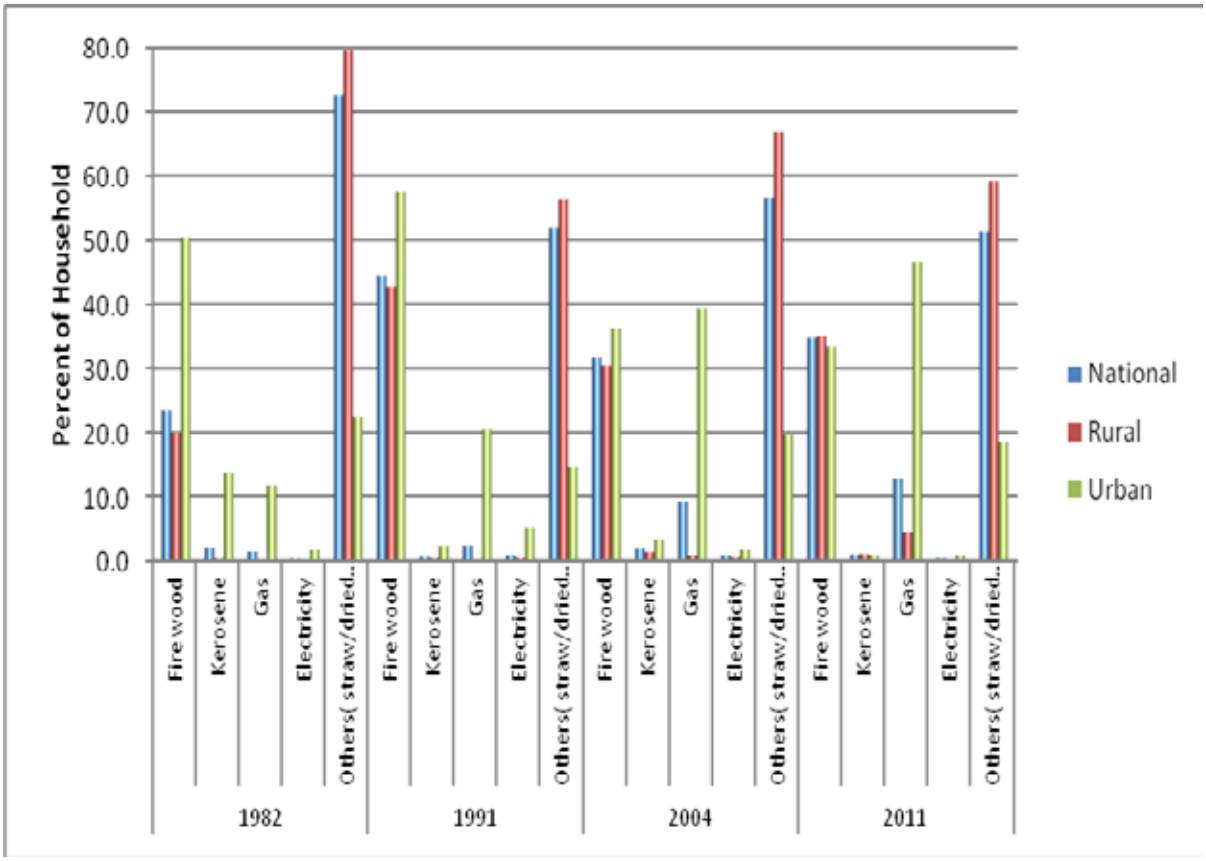
3.10 Sources of Cooking Fuel 1982-2011

Sources of cooking fuel from 1982-2011 shows that use of gas increased over the years but straw/dried cow dung leaves still are the main source of fuel for cooking in the Bangladesh. In 1982 firewood was used by 23.5% households, kerosene 1.87% households gas 1.4% households, electricity 0.33% households and straw/dried cow dung & leaves 72.5% households. In 2011 such percentages were fire wood 34.75% kerosene 1.0% gas 12.65% electricity 0.38% and straw/dried cow dung and leave 51.22% households. There exists rural and urban variation in the use of fuel in all these years with higher use of gas in the urban area compared to rural area (Table 3.10).

Table3.10: Sources of Fuel for Cooking in 1982-2011

Year/Residence	Sources of Fuel					
	Total	Fire wood	Kerosene	Gas	Electricity	Others (straw/dried cow dung leaves etc)
1982						
National	100.0	23.5	1.9	1.4	0.3	73.0
Rural	100.0	20.0	0.3	0.1	0.2	79.5
Urban	100.0	50.4	13.8	11.7	1.6	22.5
1991						
National	100.0	44.3	0.6	2.4	0.9	51.9
Rural	100.0	42.7	0.4	0.2	0.4	56.4
Urban	100.0	57.	2.3	20.4	5.1	14.5
2004						
National	100.0	31.8	1.8	9.1	0.8	56.6
Rural	100.0	30.5	1.4	0.7	0.5	66.9
Urban	100.0	36.3	3.3	39.3	1.6	19.5
2011						
National	100.0	34.8	1.0	12.7	0.4	51.2
Rural	100.0	35.1	1.0	4.5	0.3	59.1
Urban	100.0	33.4	0.8	46.5	0.9	18.5

Figure-7: Sources of Cooking Fuel in Different Years (1982-2011)



3.11 Households Access to Excreta Disposal Facility

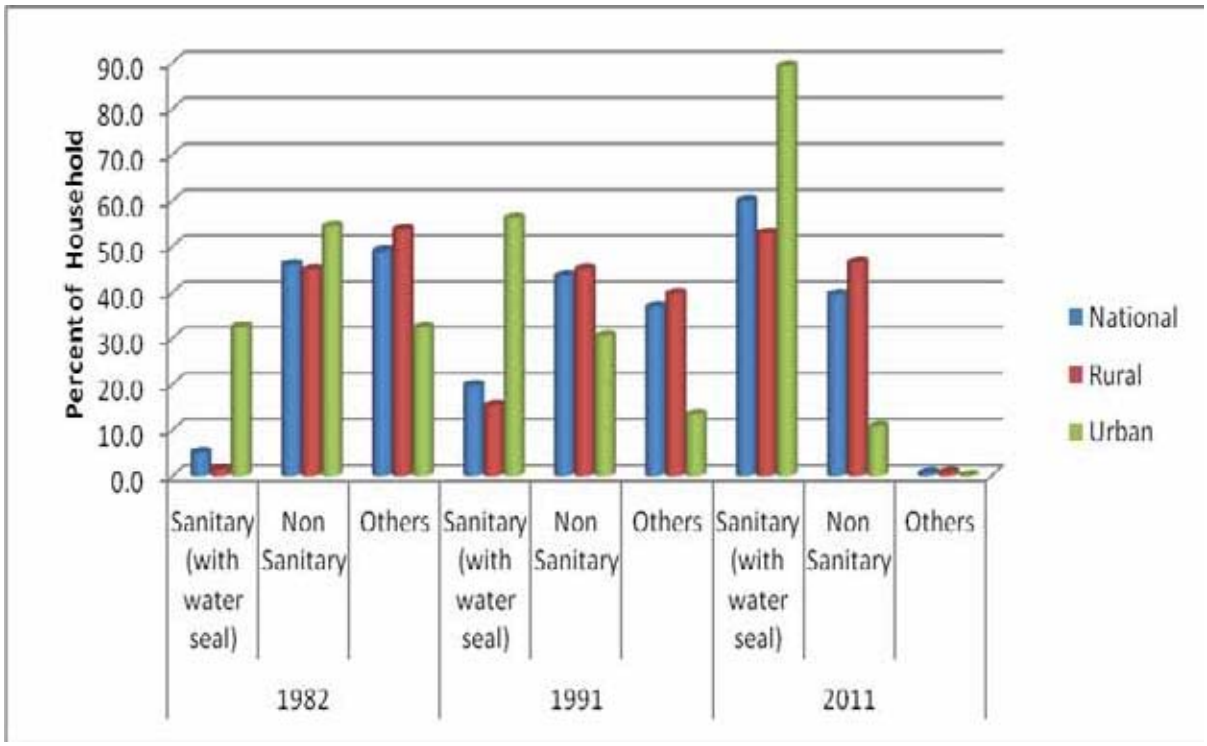
Households' access to hygienic excreta disposal facility increased in the recent year. In 1982 only 5.1% households had access to sanitary latrine which increased to 59.9% in 2011. The use of non-sanitary latrine decreased from 46.0% in 1982 to 39.5% in 2011. Other latrine which includes kutcha and open space decreased to a large extent from 48.9% to only 0.6%. The percentage of sanitary latrine with water seal was only 1.5% in rural area in 1982 which increased to 52.8% in 2011. On the other hand it increased from 32.4% in 1982 to 89.2% in 2011 in the urban area (Table 3.11)

Table 3.11: Households by Access to Toilet Facility, 1982-2011

Year/Residence	Type of Toilet facility			
	Total	Sanitary (with water seal)	Non Sanitary	Others
1982 (Sample Census)				
National	100.0	5.1	46.0	48.9
Rural	100.0	1.5	44.9	53.6
Urban	100.0	32.4	54.4	32.2
National	100.0	5.1	46.0	48.9
1991 (Sample Census)				
National	100.0	19.7	43.5	36.8
Rural	100.0	15.3	45.0	39.7
Urban	100.0	56.2	30.4	13.4
2011 (Sample Census)				
National	100.0	59.9	39.5	0.6
Rural	100.0	52.8	46.5	0.7
Urban	100.0	89.2	10.7	0.1

NB= Non Sanitary includes sanitary without water seal, pit latrine.
Others include kutcha latrine, open space etc.

Figure-8: Excreta Disposal Facilities of Household in Different Years



4. DRINKING WATER

Main source of drinking water is an important housing facility and closely related to the hygienic safety of the members of the households. In absence of safe drinking water household members may be affected by the water borne diseases. In the present chapter main source of drinking water of the household has been discussed. It may be mentioned that one household may use drinking water from two different sources, in that case the dominant source has been considered in the survey. Source of drinking water by national, rural and divisions & zilas have been discussed. In addition sources of drinking water by socio-economic variables like sex of head of household, literacy, level of education of head, land ownership and receipt of remittance, slum and non-slum households has been discussed in this chapter.

4.1 Source of Drinking Water by Residence

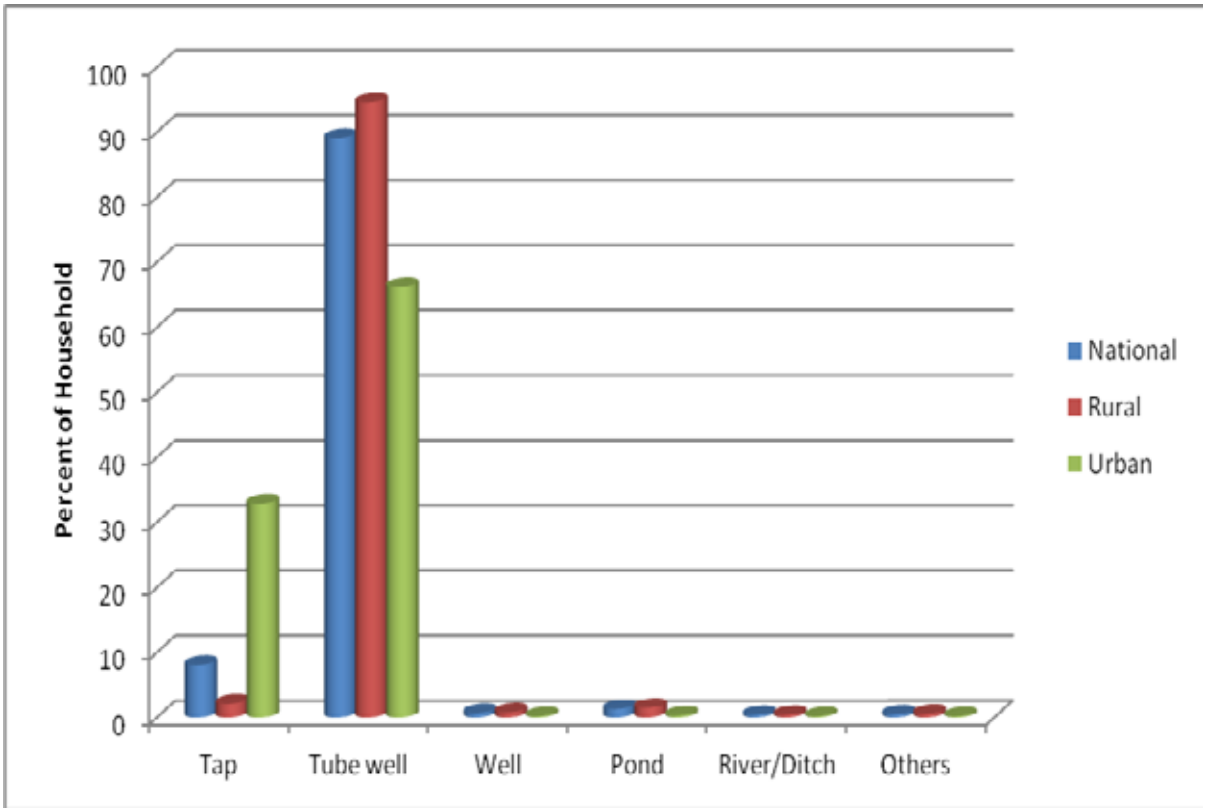
Source of drinking water by residence has been presented in Table-4.1. It is observed from the table that tube well is the main source of drinking water in Bangladesh. As many as 89.1% household reported this source as their main source of drinking water followed by tap water (8.1%), well (0.7%), pond (1.3%), river/ditch (0.4%) and others (0.5%). There exists urban-rural variation in the source of drinking water. In the urban area 66.2% reported tube well as the main source of drinking water followed by tap (32.9%). The other sources of water were well (0.2%), pond (0.3%), river/ditch (0.2%) and other (0.2%) In the rural area, as many as 94.6% reported tube well as their main source of drinking water, the use of tap was 2.1%. The other sources were well (0.8%), pond (1.5%), river/ditch (0.4%) and others (0.6%)

Table -4.1: Distribution of Households by Main Source of Drinking Water & Residence, 2011

Residence	Total	Source Drinking Water					
		Tap	Tube well	Well	Pond	River/Ditch	Others
National	100.0	8.1	89.1	0.7	1.3	0.4	0.5
Rural	100.0	2.1	94.6	0.8	1.5	0.4	0.6
Urban	100.0	32.9	66.2	0.2	0.3	0.2	0.2

Note: This table and all subsequent tables are form Sample Census 2011

Figure-9: Sources of Drinking Water by Residence, 2011



4.2 Source of Drinking Water by Division

Source of drinking water by divisions have been presented in Table-4.2. It is notable that in all divisions of the country tube well was the main source of drinking water with highest 98.4% in Rangpur followed by 96.9% in Rajshahi and 94.1% in Barisal. Use of tap water as source of main drinking water was the highest in Dhaka (17.5%) followed by Chittagong (7.0%) and Sylhet (4.8%). Use of well as the main source of drinking water was found the highest in Sylhet (3.3%) followed by Chittagong (1.9%) and Rangpur & Rajshahi (0.5%). Pond water was usedthe highest 6.4% households of Khulna division followed by Sylhet Division (4.0%) and Barisal Division (3.1%) water from river/ditch was used by 1.1% households of Barisal, 1.1% households of Chittagong, 0.2% households at Dhaka 0.1% households of Khulna and 1.0% households of Sylhet.

There exists urban-rural variation in sources of drinking water by divisions of the country. Higher rates of tap water in the urban area was observed in the divisions with comparatively higher proportion in Dhaka, Chittagong, Sylhet and Khulna.

Table-4.2: Distribution of Households by Main Source of Drinking Water by Division and Residence

Division	Residence	Source of Drinking Water						
		Total	Tap	Tube well	Well	Pond	River/Ditch	Others
Barisal	Total	100.0	1.5	94.1	0.1	3.1	1.1	0.1
	Rural	100.0	0.4	95.0	0.1	3.2	1.2	0.1
	Urban	100.0	9.4	87.8	0.0	2.2	0.2	0.4
Chittagong	Total	100.0	7.0	88.8	1.9	0.7	1.1	0.6
	Rural	100.0	0.8	94.3	2.3	0.9	1.1	0.7
	Urban	100.0	29.7	68.4	0.6	0.2	0.8	0.3
Dhaka	Total	100.0	17.5	81.9	0.2	0.0	0.2	0.3
	Rural	100.0	5.1	94.1	0.2	0.0	0.2	0.4
	Urban	100.0	52.2	47.6	0.0	0.0	0.0	0.2
Khulna	Total	100.0	2.7	89.8	0.1	6.4	0.1	0.8
	Rural	100.0	0.9	90.5	0.1	7.4	0.1	0.9
	Urban	100.0	11.8	86.5	0.0	1.1	0.2	0.3
Rajshahi	Total	100.0	2.1	96.9	0.5	0.0	0.0	0.5
	Rural	100.0	1.0	97.8	0.5	0.0	0.0	0.6
	Urban	100.0	7.4	92.1	0.2	0.1	0.0	0.1
Rangpur	Total	100.0	0.6	98.4	0.5	0.0	0.0	0.5
	Rural	100.0	0.1	98.9	0.5	0.0	0.0	0.5
	Urban	100.0	4.6	95.0	0.2	0.0	0.0	0.2
Sylhet	Total	100.0	4.8	86.2	3.3	4.0	1.0	0.8
	Rural	100.0	1.6	88.5	3.7	4.3	1.1	0.9
	Urban	100.0	27.0	70.4	0.2	2.3	0.0	0.1

4.3 Source of Drinking Water by Zilas

Source of drinking water by zilas shows that tube well is the main source of drinking water in most of the zilas except Bandarban, Rangamati and Dhaka zilas. It is notable that more than 90.0% households of 51 Zilas use tube well water as the main source of drinking water.Use of well was found the highest in Rangamati (36.4%) followed by Khagrachari (27.1%) and Bandarban (10.8%). Use of pond water was found the highest in Bagerhat (32.3%) followed by Khulna & Satkhira (12.0%) and Sylhet (9.9%).Use of river/ditch water found the highest in Bandarban (31.0%) followed by Rangamati (9.9%) and Pirojpur (3.1%).

Table-4.3: Distribution of Households by Main Source of Drinking Water & Zilas

Zilas	Source of Drinking Water						
	Total	Tap	Tube well	Well	Pond	River/ Ditch	Others
Barguna	100.0	2.6	90.0	0.1	5.9	1.3	0.1
Barisal	100.0	1.3	98.2	0.0	0.4	0.1	0.0
Bhola	100.0	0.6	97.9	0.2	0.1	1.1	0.0
Jhalokati	100.0	0.4	96.4	0.0	1.9	1.3	0.1
Patuakhali	100.0	0.3	98.8	0.0	0.1	0.7	0.0
Pirojpur	100.0	4.6	75.9	0.2	15.3	3.1	0.9
Bandarban	100.0	7.7	38.6	10.8	0.2	31.0	11.8
Brahmanbaria	100.0	1.2	98.4	0.4	0.0	0.0	0.0

Zilas	Source of Drinking Water						
	Total	Tap	Tube well	Well	Pond	River/ Ditch	Others
Chanpur	100.0	2.2	92.0	0.0	3.4	2.2	0.1
Chittagong	100.0	18.5	81.0	0.2	0.2	0.0	0.2
Comilla	100.0	4.6	94.7	0.1	0.3	0.3	0.1
Cox's Bazar	100.0	0.5	96.6	1.8	0.0	0.0	1.0
Feni	100.0	2.8	97.0	0.0	0.0	0.0	0.2
Khagrachhari	100.0	1.0	68.8	27.1	0.2	2.4	0.5
Lakshmipur	100.0	4.2	93.9	0.2	0.7	0.9	0.1
Noakhali	100.0	0.8	95.6	0.5	2.3	0.2	0.6
Rangamati	100.0	4.8	41.0	36.4	0.5	9.9	7.3
Dhaka	100.0	60.9	39.1	0.0	0.0	0.0	0.0
Faridpur	100.0	1.8	98.0	0.0	0.0	0.0	0.3
Gazipur	100.0	12.0	87.7	0.0	0.0	0.0	0.2
Gopalganj	100.0	4.6	94.5	0.1	0.2	0.2	0.5
Jamalpur	100.0	0.7	99.1	0.2	0.0	0.0	0.2
Kishoreganj	100.0	0.2	99.5	0.0	0.0	0.0	0.1
Madaripur	100.0	0.8	97.0	0.7	0.2	0.0	2.0
Manikganj	100.0	2.3	97.0	0.0	0.0	0.0	0.0
Munshiganj	100.0	1.5	98.4	0.3	0.0	0.0	0.0
Mymensingh	100.0	1.8	96.9	0.1	0.1	0.0	0.9
Narayanganj	100.0	11.7	87.0	0.0	0.0	1.1	0.0
Narsingdi	100.0	1.5	98.4	0.1	0.0	0.0	0.1
Netrokona	100.0	0.0	97.4	0.3	0.0	2.3	0.2
Rajbari	100.0	0.3	99.3	0.0	0.0	0.0	0.1
Shariatpur	100.0	0.6	98.4	1.7	0.0	0.0	0.9
Sherpur	100.0	0.2	98.1	0.2	0.0	0.0	0.0
Tangail	100.0	0.6	98.4	0.2	0.0	0.0	0.8
Bagarhat	100.0	8.6	53.9	0.0	32.3	1.3	3.8
Chuadanga	100.0	2.6	97.0	0.0	0.0	0.0	0.4
Jessore	100.0	1.3	98.2	0.0	0.0	0.0	0.5
Jhenaidah	100.0	1.4	97.4	0.0	1.0	0.0	0.2
Khulna	100.0	1.3	86.1	0.5	12.0	0.0	0.2
Kushtia	100.0	0.3	99.5	0.1	0.0	0.1	0.0
Magura	100.0	1.6	98.4	0.1	0.0	0.0	0.0
Meherpur	100.0	3.8	96.1	0.0	0.0	0.0	0.0
Narail	100.0	1.1	97.4	0.0	0.5	0.0	0.5
Satkhira	100.0	6.0	79.8	0.1	12.0	0.0	2.1
Bogra	100.0	0.6	99.3	0.0	0.0	0.0	0.1
Joypurhat	100.0	0.5	99.0	0.0	0.0	0.0	0.4
Naogaon	100.0	0.8	96.8	2.4	0.0	0.0	0.0
Natore	100.0	0.3	99.6	0.1	0.0	0.0	0.0
Chapai -Nawabganj	100.0	8.1	90.3	0.8	0.1	0.0	0.6
Rajshahi	100.0	5.8	93.8	0.4	0.0	0.0	0.0

Zilas	Source of Drinking Water						
	Total	Tap	Tube well	Well	Pond	River/ Ditch	Others
Pabna	100.0	0.6	96.6	0.0	0.0	0.0	2.8
Sirajganj	100.0	1.4	98.0	0.0	0.0	0.1	0.5
Dinajpur	100.0	0.3	99.2	0.2	0.0	0.0	0.3
Gaibandha	100.0	1.9	96.9	0.0	0.0	0.0	1.2
Kurigram	100.0	0.7	99.1	0.0	0.0	0.0	0.2
Lalmonirhat	100.0	0.2	98.9	0.8	0.0	0.0	0.2
Nilphamari	100.0	0.2	97.1	2.0	0.0	0.0	0.6
Panchagarh	100.0	0.7	97.2	1.1	0.0	0.0	1.0
Ranpur	100.0	0.5	99.1	0.2	0.0	0.0	0.2
Thakurgaon	100.0	0.2	99.1	0.3	0.0	0.0	0.3
Habiganj	100.0	3.9	92.1	0.5	1.3	0.2	2.0
Moulvibazar	100.0	3.5	82.3	12.4	0.8	0.3	0.6
Sunamganj	100.0	1.2	96.1	0.6	1.1	0.8	0.1
Sylhet	100.0	8.7	77.1	1.5	9.9	2.1	0.6

4.4 Main Source of Drinking Water by Sex of Head of Household

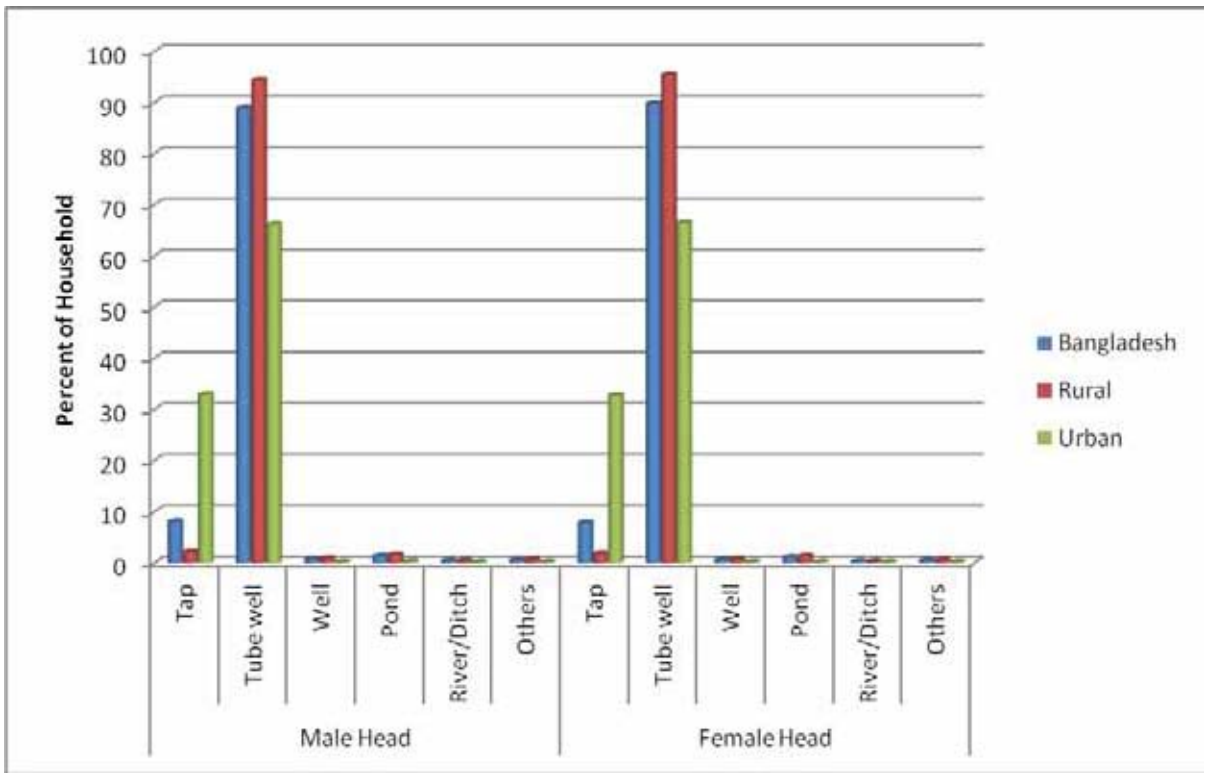
Main source of drinking water by sex of head of household have been presented in Table-4.4. It is notable that for male headed household 88.9% use tube well water as the main source of drinking water followed by tap water (8.1%), pond (1.3%) and well (0.7%). For the female headed household 89.8% use tube well as the main source of drinking water followed by tap water (7.8%) and pond (1.1%). The other source of drinking water for male headed household was river/ditch (0.4%) and others (0.5%). Such source for female headed household was well (0.6%), river/ditch (0.3%) and others (0.5%).

There exists no significant urban-rural variation in the use of source of main drinking water by sex of head of household.

Table-4.4: Distribution of Households by Main Source of Drinking Water by Sex of Head & Residence, 2011

Sex of head	Residence	Source of Drinking Water						
		Total	Tap	Tube well	Well	Pond	River/ Ditch	Others
Male	Bangladesh	100.0	8.1	88.9	0.7	1.3	0.4	0.5
	Rural	100.0	2.1	94.4	0.9	1.6	0.4	0.6
	Urban	100.0	32.9	66.2	0.2	0.3	0.2	0.2
Female	Bangladesh	100.0	7.8	89.8	0.6	1.1	0.3	0.5
	Rural	100.0	1.8	95.4	0.7	1.3	0.3	0.5
	Urban	100.0	32.7	66.5	0.2	0.2	0.2	0.2

Figure-10: Source of Drinking Water by Sex of Head of Household 2011



4.5 Main source of Drinking Water by Literacy of Head of Household

Main source of drinking water by literacy status of head of household has been presented in Table-4.5. It is observed from the table that there exists difference in the main source of drinking water by literacy level of head of household.

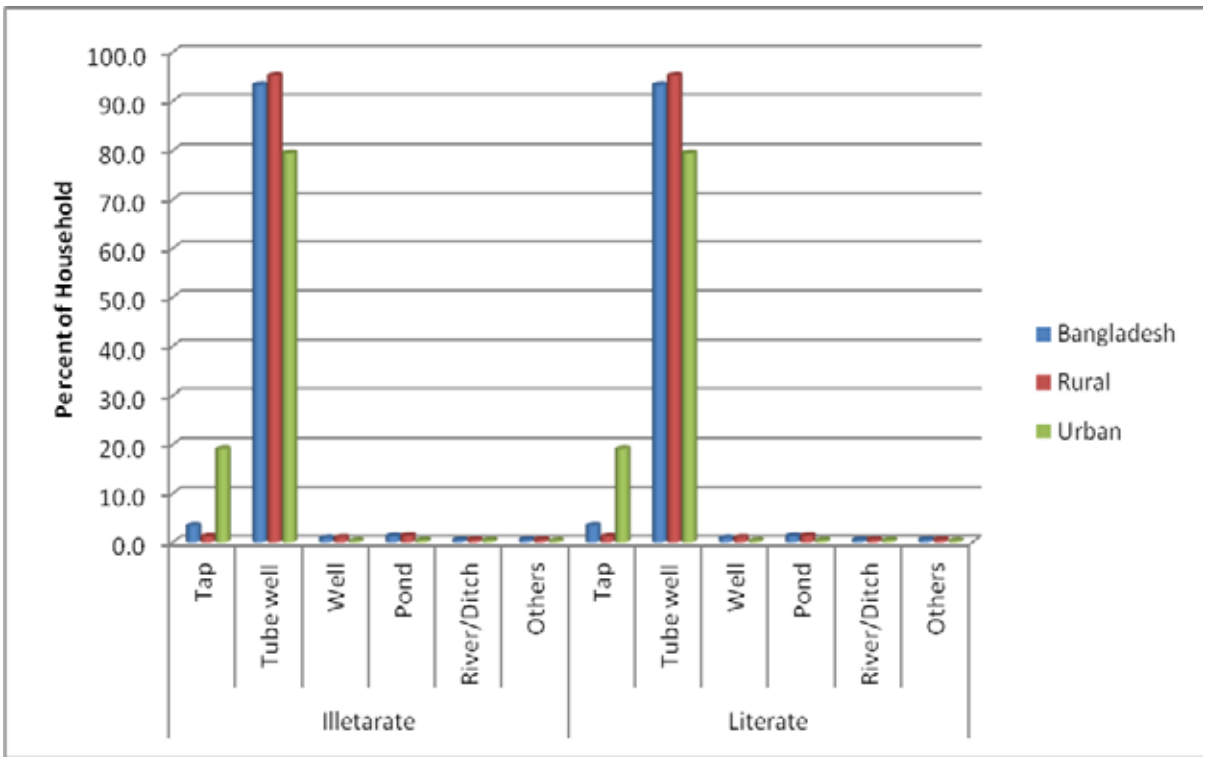
Though tube well is main source of drinking water for household with both literate and illiterate head, yet there exists difference in percentage between the two groups. For the household with illiterate head 93.3% use tube well as main source of drinking water as against 84.1% for the households with literate head. Use of tap water was 13.5% for households with literate heads as against only 3.4% for the illiterate heads. Use of well as source of drinking water was 0.9% for illiterate headed household as against 0.5% for literate headed household. Interestingly, use of pond water was the same (1.3%) between illiterate and literate headed household.

There exists distinct urban-rural variation between literate and illiterate headed household with respect to source of drinking water.

Table-4.5: Distribution of Households by Main Source of Drinking Water by Literacy Level of Head & Residence

Literacy Level of Head	Residence	Source of Drinking Water						
		Total	Tap	Tube well	Well	Pond	River/ Ditch	Others
Illiterate	Bangladesh	100.0	3.4	93.3	0.9	1.3	0.5	0.6
	Rural	100.0	1.2	95.2	1.0	1.4	0.6	0.6
	Urban	100.0	19.1	79.5	0.3	0.4	0.4	0.3
Literate	Bangladesh	100.0	13.5	84.1	0.5	1.3	0.2	0.4
	Rural	100.0	3.3	93.6	0.7	1.7	0.2	0.4
	Urban	100.0	40.1	59.3	0.1	0.3	0.1	0.2

Figure-11: Source of Drinking Water by Literacy Level of Head and Residence



4.6 Main Source of Drinking Water by Level of Education of Head of Household

Main source of drinking water by level of education of head of household has been presented in Table-4.6. It is observed from the table that there exists variation in the use of drinking water by the level of education of head. It is notable that use of tap water increases with the increase of level of education of head. On the contrary, the use of tube well water decreases with the increase of level of education of head, though it is the main source of water for drinking in all household. Tube well as main source of drinking water was 90.4% for the

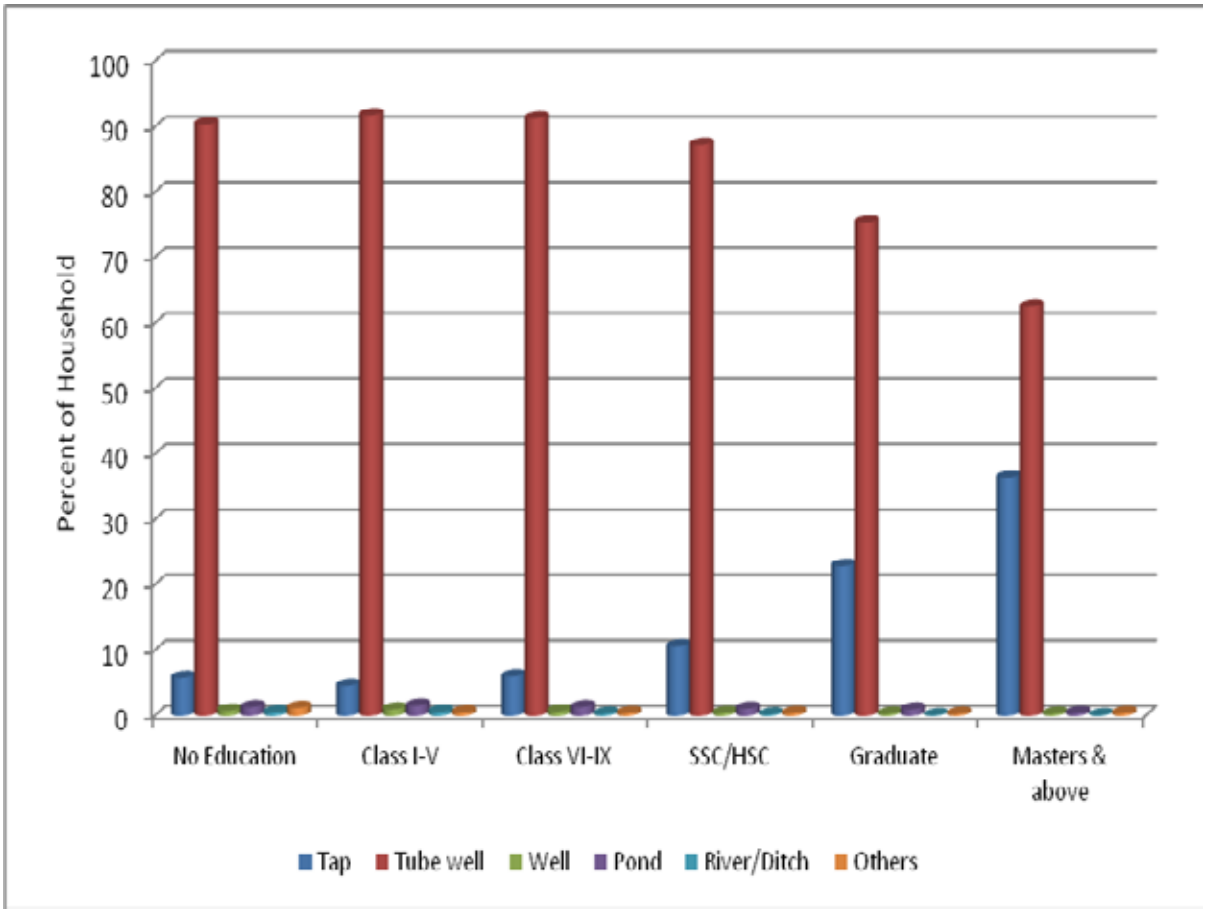
household with head without education, 91.8% for those households with head having education class I-V, 87.3% for household with head having education level SSC/HSC, 75.4% for households with head having education level graduate and 62.5% for the household with head having education level masters and above. Use of tap water was the highest 36.4% for households with head having masters and above level education. Such percentage was 22.9% for household with head having education level graduate, 10.6% for household with head having education level SSC/HSC, 6.0% for households with education level class VI-IX, 4.6% for household with education level class I-V.

There exists urban-rural variation in the main source of drinking water by level of education of head.

Table-4.6: Distribution of Households by Main Source of Drinking Water by Level of Education & Residence

Residence	Level of Education	Source of Drinking Water						
		Total	Tap	Tube well	Well	Pond	River/ Ditch	Others
Bangladesh	No Education	100.0	5.8	90.4	0.8	1.3	0.5	1.2
	Class I-V	100.0	4.6	91.8	1.0	1.5	0.6	0.5
	Class VI-IX	100.0	6.0	91.3	0.7	1.3	0.3	0.4
	SSC/HSC	100.0	10.6	87.3	0.4	1.1	0.2	0.4
	Graduate	100.0	22.9	75.4	0.3	1.0	0.1	0.3
	Masters & above	100.0	36.4	62.5	0.3	0.4	0.1	0.4
Rural	No Education	100.0	2.3	93.4	0.9	1.5	0.6	1.3
	Class I-V	100.0	1.6	94.3	1.1	1.7	0.6	0.6
	Class VI-IX	100.0	2.0	95.0	0.8	1.5	0.3	0.4
	SSC/HSC	100.0	2.4	95.2	0.6	1.3	0.2	0.4
	Graduate	100.0	4.5	93.0	0.4	1.5	0.2	0.4
	Masters & above	100.0	3.5	94.0	0.6	0.9	0.2	0.8
Urban	No Education	100.0	22.8	75.7	0.4	0.4	0.0	0.7
	Class I-V	100.0	23.3	75.6	0.3	0.3	0.3	0.3
	Class VI-IX	100.0	26.5	72.5	0.2	0.3	0.3	0.1
	SSC/HSC	100.0	35.6	63.5	0.1	0.4	0.2	0.2
	Graduate	100.0	49.9	49.6	0.1	0.3	0.0	0.2
	Masters & above	100.0	60.0	39.9	0.0	0.1	0.0	0.1

Figure-12: Distribution of Households by Main Source of Drinking Water by Level of Education by Residence



4.7 Main Source of Drinking Water by Ownership of Land

Main source of drinking water by ownership of land has been presented in table-4.7. There exists difference in the main source of drinking water of households by any member of the household owning land and female member owning land.

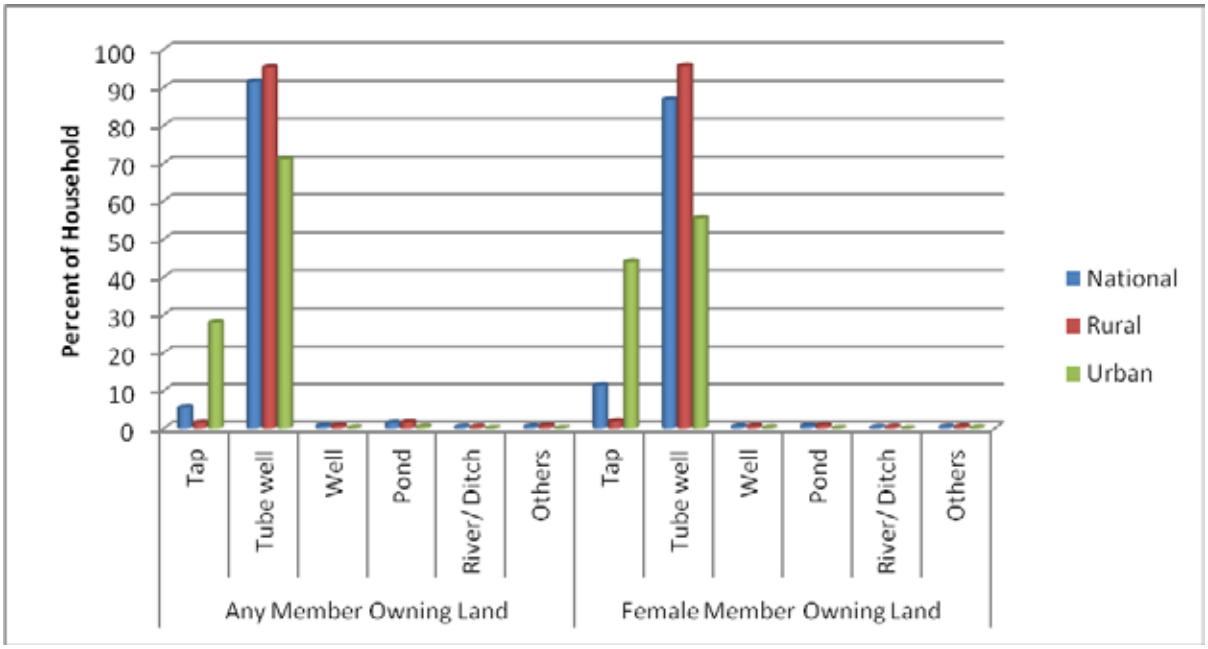
For the household with any member owning land, 5.4% household use tap water, 91.6% use tube well water, 0.7% use water from well, 1.4% use water from pond, 0.4% use water from river/ditch and 0.5% use water from other source for drinking purposes. On the other hand, for female member owning land 11.4% use tap water, 86.7% use tube well water 0.8% use water from well 0.7% use water from pond and 0.4% from other source.

There exists urban-rural variation in the use of main source of drinking water between household with any member owning land and the female member owning land.

Table-4.7: Distribution of Households by Main Source of Drinking Water by Land Ownership & Residence

Land Ownership Status	Residence	Source of Drinking Water						
		Total	Tap	Tube well	Well	Pond	River/ Ditch	Others
Any Member Owning Land	National	100.0	5.4	91.6	0.7	1.4	0.4	0.5
	Rural	100.0	1.4	95.3	0.8	1.6	0.4	0.8
	Urban	100.0	27.9	71.0	0.2	0.4	0.1	0.1
Female Member Owning Land	National	100.0	11.4	86.7	0.5	0.7	0.3	0.4
	Rural	100.0	1.9	95.7	0.6	0.9	0.4	0.5
	Urban	100.0	44.0	55.5	0.2	0.1	0.0	0.2

Figure-13: Source of Drinking Water by Land Ownership and Residence



4.8 Main Source of Drinking Water by Remittance Receiving and non-Receiving Household

Interestingly, there exists no difference between remittance receiving and non-receiving households in respect of source of main drinking water. (Table-4.8)

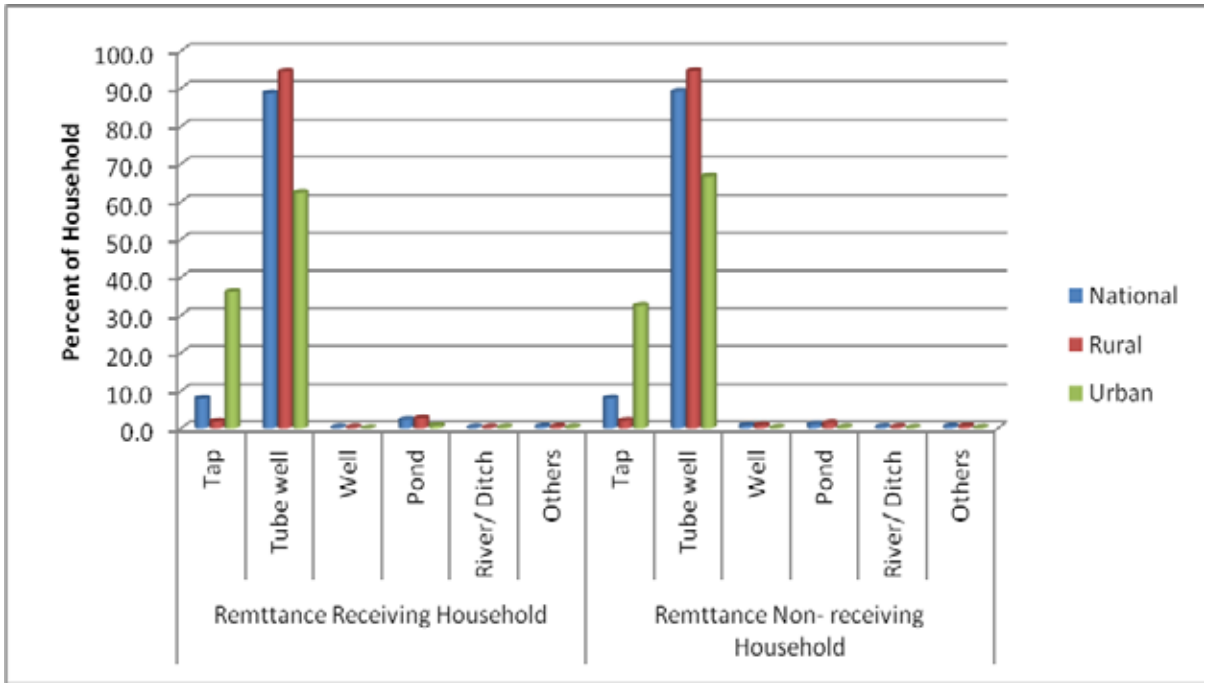
For the remittance receiving households 8.0% use tap water, 88.7% use tube well, 0.3% use well, 2.3% use pond, 0.3% use river/ditch and 0.5% use other source. As regards the use of main source of drinking water 8.1% use tap water, 89.1% use tube well, 0.8% use well, and 1.1% use pond water, 0.4% use river/ditch and 0.5% use other source of drinking water by

non-remittance receiving households. There exist some differences between remittance receiving and non-receiving households in respect of use of tap water in the urban area where remittance receiving household have higher rate of use of tap water.

Table-4.8: Distribution of Households by Main Source of Drinking Water by Remittance Receiving and Non-Receiving Households

Remittance Received or Not	Residence	Source of Drinking Water						
		Total	Tap	Tube well	Well	Pond	River/ Ditch	Others
Remittance Receiving Household	National	100.0	8.0	88.7	0.3	2.3	0.3	0.5
	Rural	100.0	1.9	94.4	0.3	2.7	0.3	0.5
	Urban	100.0	36.1	62.5	0.1	0.8	0.3	0.3
Non-Remittance Receiving Household	National	100.0	8.1	89.1	0.8	1.1	0.4	0.5
	Rural	100.0	2.1	94.6	0.9	1.4	0.4	0.6
	Urban	100.0	32.5	66.7	0.2	0.3	0.2	0.2

Figure-14: Distribution of Households by Main Source of Drinking Water by Remittance Receiving and Non-Receiving Households



4.9 Main Source of Drinking Water by Slum and Non-slum Household

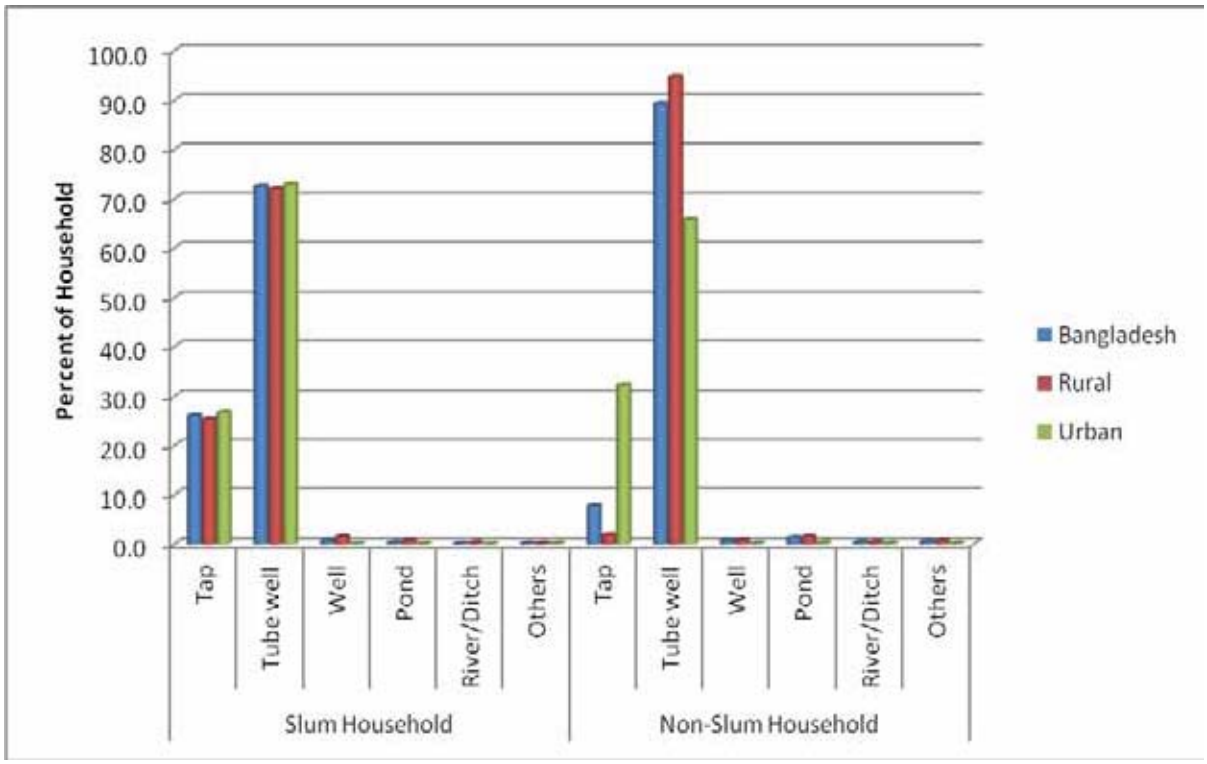
Source of drinking water of the slum and non-slum households has been presented in Table-4.9. It is observed from the table that tube well is the dominant source of drinking water, both for slum and non-slum households. It is notable from the table that water from "tap" is higher in case of slum household which may be due to the existence of more slum households in the

urban area where they have access to tap water. However, higher proportion urban households use tap water than the urban slum households. Use of other sources of drinking water are insignificant both in urban and rural slum & non-slum households. The higher use of tap water by rural slum households may be due to their existence in semi-urban growth centres.

Table-4.9: Distribution of Households by Source of Drinking Water for Slum and Non Slum Households

Slum & Non Slum Households	Residence	Source of Drinking Water						
		Total	Tap	Tube well	Well	Pond	River/ Ditch	Others
Slum	Bangladesh	100.0	26.1	72.6	0.6	0.3	0.1	0.2
	Rural	100.0	25.3	72.0	1.5	0.7	0.3	0.2
	Urban	100.0	26.7	73.0	0.1	0.1	0.0	0.2
Non Slum	Bangladesh	100.0	7.8	89.3	0.7	1.3	0.4	0.5
	Rural	100.0	1.9	94.8	0.8	1.5	0.4	0.6
	Urban	100.0	32.2	65.8	0.2	0.3	0.2	0.2

Figure-15: Source of Drinking Water for Slum and Non-Slum Household



5. USE OF BOILED/ BOTTLED/ FILTERED WATER

This chapter presents the use of boiled/bottled/filtered water by the households. Use of boiled/bottled/filtered water by the households is a recent phenomenon. Earlier people was not very conscious about the water borne diseases like diarrhoea, dysentery, jaundice, typhoid etc. Over the years the consciousness of the people increased to a large extent and they like to use germ free drinking water. As such they use boiled/bottled/filtered water for protecting themselves from communicable diseases. In the present chapter use of boiled/bottled/filtered water by residence, divisions, zilas and socio-economic variables like sex of head of household, literacy, level of education of head, land ownership and access to remittance have been discussed.

5.1 Use of Boiled/Bottled/Filtered Water by Residence

The use of bottled/boiled/filtered water by residence shows that at the national level 7.8% use type of treated water. The use of boiled/bottled/filtered water is comparatively lower in the rural area than the urban area. In the rural area only 2.9% use these safe water compared to about 9 times higher (27.8%) in the urban area.

Table-5.1: Distribution of Household by Use of Boiled/Bottled/filtered water by Residence

Residence	Use of Boiled/Bottled /Filtered Water		
	Total	Yes	No
National	100.0	7.8	92.2
Rural	100.0	2.9	97.1
Urban	100.0	27.8	72.2

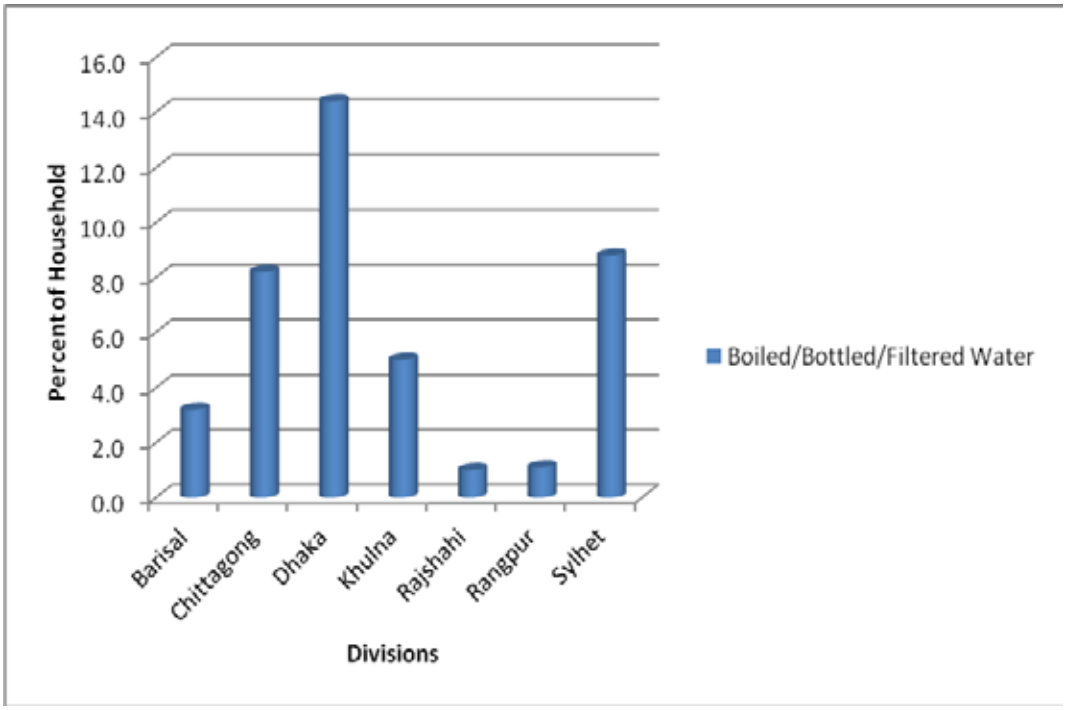
5.2 Use of Boiled/Bottled/Filtered Water by Division

Use of boiled/bottled/filtered water in the seven administrative divisions of the country has been presented in Table-5.2. It is observed from the table that this treated water are higher in the urbanized divisions. The highest 14.4% households of Dhaka division use these safe drinking water followed by Sylhet (8.8%) and Chittagong (8.2%). It is notable that only 1.0% household of Rajshahi division use boiled/bottled/filtered water preceded by Rangpur 1.1% and Barisal (3.2%). In the rural area of these divisions the highest 6.0% households of Sylhet division use these source of water followed by Dhaka & Khulna (3.9%) and Chittagong (3.4%). The lowest 0.4% households of Rajshahi division use such kind of water preceded by Rangpur (0.9%) and Barisal (2.5%). In the urban area of the divisions the highst 43.9% households of Dhaka division use these hygienic water followed by Sylhet (28.6%) and Chittagong (25.8%). The lowest 2.8% urban households of Rangpur division use such water preceded by Rajshahi (4.5%) and Barisal (7.7%).

Table-5.2: Distribution of Household by Use of Boiled/Bottled/filtered water by Division and Residence

Division	Residence	Use of Boiled/Bottled water/Filtered		
		Total	Yes	No
Barisal	Total	100.0	3.2	96.8
	Rural	100.0	2.5	97.5
	Urban	100.0	7.7	92.3
Chittagong	Total	100.0	8.2	91.8
	Rural	100.0	3.4	96.6
	Urban	100.0	25.8	74.2
Dhaka	Total	100.0	14.4	85.6
	Rural	100.0	3.9	96.1
	Urban	100.0	43.9	56.1
Khulna	Total	100.0	5.0	95.0
	Rural	100.0	3.9	96.1
	Urban	100.0	10.6	89.4
Rajshahi	Total	100.0	1.0	99.0
	Rural	100.0	0.4	99.6
	Urban	100.0	4.5	95.5
Rangpur	Total	100.0	1.1	98.9
	Rural	100.0	0.9	99.1
	Urban	100.0	2.8	97.2
Sylhet	Total	100.0	8.8	91.2
	Rural	100.0	6.0	94.0
	Urban	100.0	28.6	71.4

Figure-16: Households Using Boiled/Bottled/ Filtered Water by Divisions



5.3 Use of Boiled/bottled/Filtered Water by Zila

Use of boiled/bottled/filtered water by zila shows wide variation in the use of these treated water. The highest 50.3% households of Dhaka zila use such kind of water followed by Sylhet zila (19.1%) and Feni zila (13.3%). Surprisingly less than 1.0% households of 18 zilas of the country use these treated water. Use of treated water for 13 zila was above 5.0%. The use of these hygienic water for the rest of the zilas were between 1.0% to less than 5.0%. the use of boiled/bottled/filtered water in the southern zilas of Barisal and Khulna division was comparatively higher than Rajshahi & Rangpur divisions. The salinity and arsenic contamination may be the cause of hygienic use of treated water in these zilas.

Table-5.3: Distribution of Household by Use of Boiled/Bottled/filtered water by Zilas

Zilas	Use of Boiled/Bottled water/Filtered		
	Total	Yes	No
Barguna	100.0	2.6	97.4
Barisal	100.0	1.5	98.5
Bhola	100.0	3.8	96.2
Jhalokati	100.0	1.7	98.3
Patuakhali	100.0	0.8	99.2
Pirojpur	100.0	9.9	90.1
Bandarban	100.0	8.6	91.4
Brahmanbaria	100.0	2.8	97.2
Chanpur	100.0	4.4	95.6
Chittagong	100.0	8.1	91.9
Comilla	100.0	3.1	96.9
Cox's Bazar	100.0	3.1	96.9
Feni	100.0	13.3	86.7
Khagrachhari	100.0	2.3	97.7
Lakshmipur	100.0	5.8	94.2
Noakhali	100.0	4.2	95.8
Rangamati	100.0	8.5	91.5
Dhaka	100.0	50.3	49.7
Faridpur	100.0	3.5	96.5
Gazipur	100.0	8.5	91.5
Gopalganj	100.0	4.8	95.2
Jamalpur	100.0	0.3	99.7
Kishoreganj	100.0	0.4	99.6
Madaripur	100.0	2.1	97.9
Manikganj	100.0	2.9	97.1
Munshiganj	100.0	1.6	98.4
Mymensingh	100.0	0.9	99.1
Narayanganj	100.0	4.3	95.7
Narsingdi	100.0	0.6	99.4
Netrokona	100.0	0.5	99.5
Rajbari	100.0	0.9	99.1
Shariatpur	100.0	0.8	99.2
Sherpur	100.0	0.1	99.9

Zilas	Use of Boiled/Bottled water/Filtered		
	Total	Yes	No
Tangail	100.0	3.5	96.5
Bagarhat	100.0	11.4	88.6
Chuadanga	100.0	2.9	97.1
Jessore	100.0	2.7	97.3
Jhenaidah	100.0	6.0	94.0
Khulna	100.0	7.6	92.4
Kushtia	100.0	1.0	99.0
Magura	100.0	1.0	99.0
Meherpur	100.0	1.7	98.3
Narail	100.0	2.0	98.0
Satkhira	100.0	8.9	91.1
Bogra	100.0	0.3	99.7
Joypurhat	100.0	1.3	98.7
Naogaon	100.0	0.5	99.5
Natore	100.0	0.5	99.5
Chapai –Nawabganj	100.0	0.6	99.4
Rajshahi	100.0	2.2	97.8
Pabna	100.0	1.3	98.7
Sirajganj	100.0	1.6	98.4
Dinajpur	100.0	0.3	99.7
Gaibandha	100.0	3.0	97.0
Kurigram	100.0	1.4	98.6
Lalmonirhat	100.0	0.6	99.4
Nilphamari	100.0	0.2	99.8
Panchagarh	100.0	0.2	99.8
Ranpur	100.0	0.9	99.1
Thakurgaon	100.0	1.9	98.1
Habiganj	100.0	2.1	97.9
Moulvibazar	100.0	8.0	92.0
Sunamganj	100.0	1.7	98.3
Sylhet	100.0	19.1	80.9

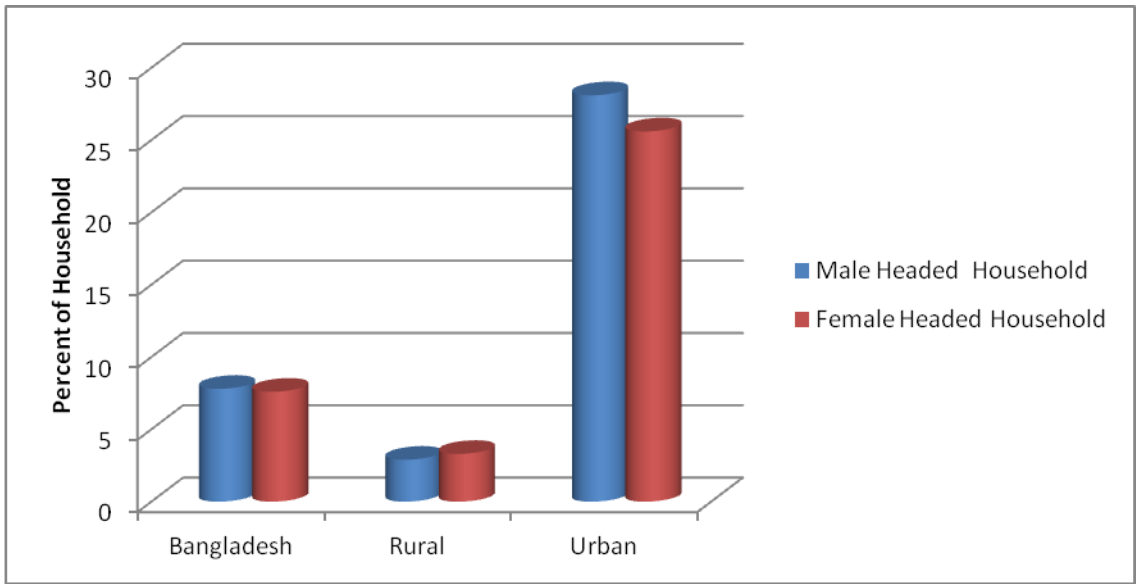
5.4 Use of Boiled/Bottled/Filtered Water by Sex of Head of Household

It is notable that there exists no remarkable variation in the use of boiled/bottled/filtered water by sex of head of households. For the male headed household 7.8% use such water as against 7.6% for the female headed household. In the rural area, 2.9% male headed household use boiled/bottled/filtered water as against 7.6%for the female headed household. On the other hand, in the urban area 28.1% male headed household use boiled/bottled/filtered water compared to 25.6% female headed household.

Table-5.4: Distribution of Household by Use of Boiled/Bottled/filtered water by Sex of Head & Residence

Sex of head	Residence	Use of Boiled/Bottled /Filtered Water		
		Total	Yes	No
Male	Bangladesh	100.0	7.8	92.2
	Rural	100.0	2.9	97.1
	Urban	100.0	28.1	71.9
Female	Bangladesh	100.0	7.6	92.4
	Rural	100.0	3.3	96.7
	Urban	100.0	25.6	74.4

Figure-7: Use of Boiled/Bottled/ Filtered Water By Sex of Head of Household



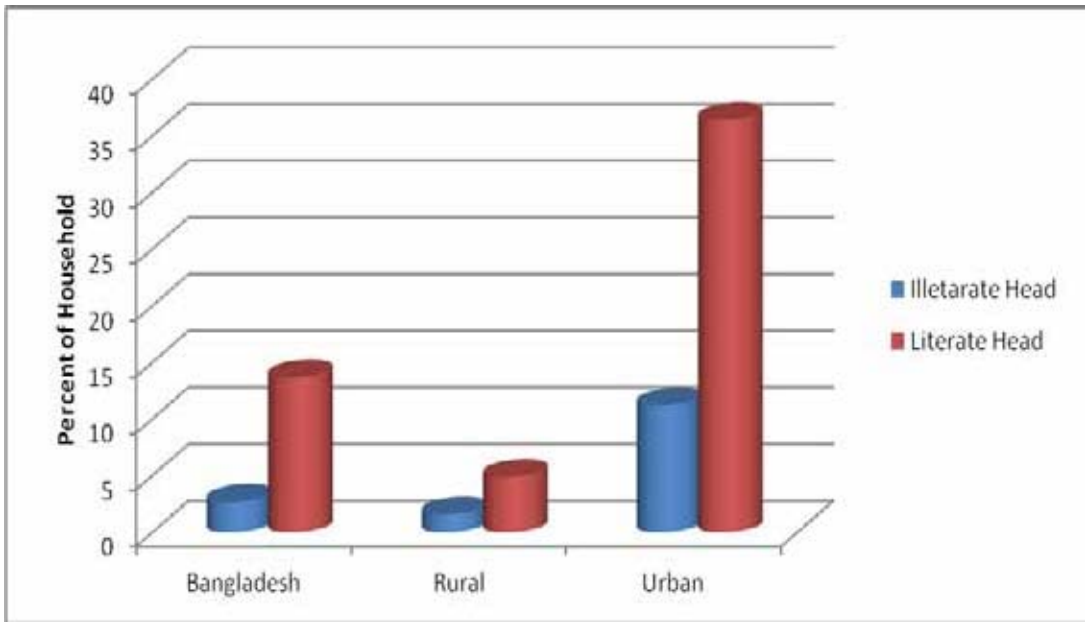
5.5 Use of Boiled/Bottled/Filtered Water by Literacy

Use of boiled/bottled/filtered water by literacy level of head indicates significant variation in the use of hygienic water. Use of treated water was 2.7% for the households with illiterate head compared to 13.7% for the literate head. This indicate that literacy level of household heads play an important role in determining the use of safe drinking water. In the rural area 1.6% household with illiterate head use the hygienic water source like boiled/bottled/filtered water compared to 4.9% households with literate using such water. In the urban area 11.2% households with illiterate head use treated water compared to 36.4% literate head which is more than three times higher than the illiterate head.

Table-5.5: Distribution of Household by Use of Boiled/Bottled/filtered water by Level of Education by Residence

Literacy Level of Head	Residence	Use of Boiled/Bottled /Filtered Water		
		Total	Yes	No
Illiterate	Bangladesh	100.0	2.7	97.3
	Rural	100.0	1.6	98.4
	Urban	100.0	11.2	88.8
Literate	Bangladesh	100.0	13.7	86.3
	Rural	100.0	4.9	95.1
	Urban	100.0	36.4	63.6

Figure-18 : Use of Boiled/ Bottled/ Filtered Water by Literacy of Head



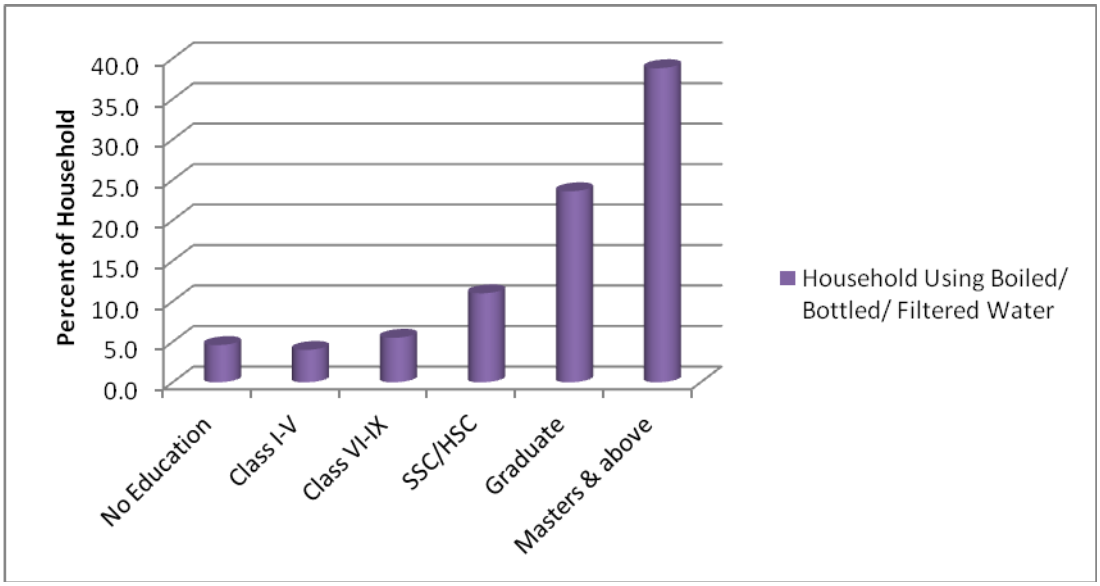
5.6 Use of Boiled/Bottled/Filtered Water by Level of Education

Use of boiled/bottled/filtered water by level of education of head has been presented in table-5.6. It is notable that the level of education of head is positively correlated with the use of hygienic water. It is only 4.6% for heads with no education and nine times higher 38.6% for head with level of education masters and above. This status is also true for rural as well as urban area but very well pronounced in the urban area compared to rural area. In the rural area, the use of such water for household with no education was 2.8% and 5.9% for those household with head having masters and above education level. On the contrary, in the urban area the use of such water was 13.5% for head with no education and 62.55 for head with education level matters and above.

Table-5.6: Distribution of Household by Use of Boiled/Bottled/filtered water by Level of Education & Residence

Residence	Level of Education	Use of Boiled/Bottled /Filtered Water		
		Total	Yes	No
Bangladesh	No Education	100.0	4.6	95.4
	Class I-V	100.0	4.0	96.0
	Class VI-IX	100.0	5.5	94.5
	SSC/HSC	100.0	11.0	89.0
	Graduate	100.0	23.6	76.4
	Masters & above	100.0	38.8	61.2
Rural	No Education	100.0	2.8	97.2
	Class I-V	100.0	2.2	97.8
	Class VI-IX	100.0	2.7	97.3
	SSC/HSC	100.0	3.9	96.1
	Graduate	100.0	6.7	93.3
	Masters & above	100.0	5.9	94.1
Urban	No Education	100.0	13.5	86.5
	Class I-V	100.0	15.0	85.0
	Class VI-IX	100.0	20.0	80.0
	SSC/HSC	100.0	32.5	67.5
	Graduate	100.0	48.4	51.6
	Masters & above	100.0	62.5	37.5

Figure-19: Household Using Boiled/Bottled/ Filtered Water by Level of Education of Head



5.7 Use of Boiled/Bottled/Filtered Water by Land Ownership

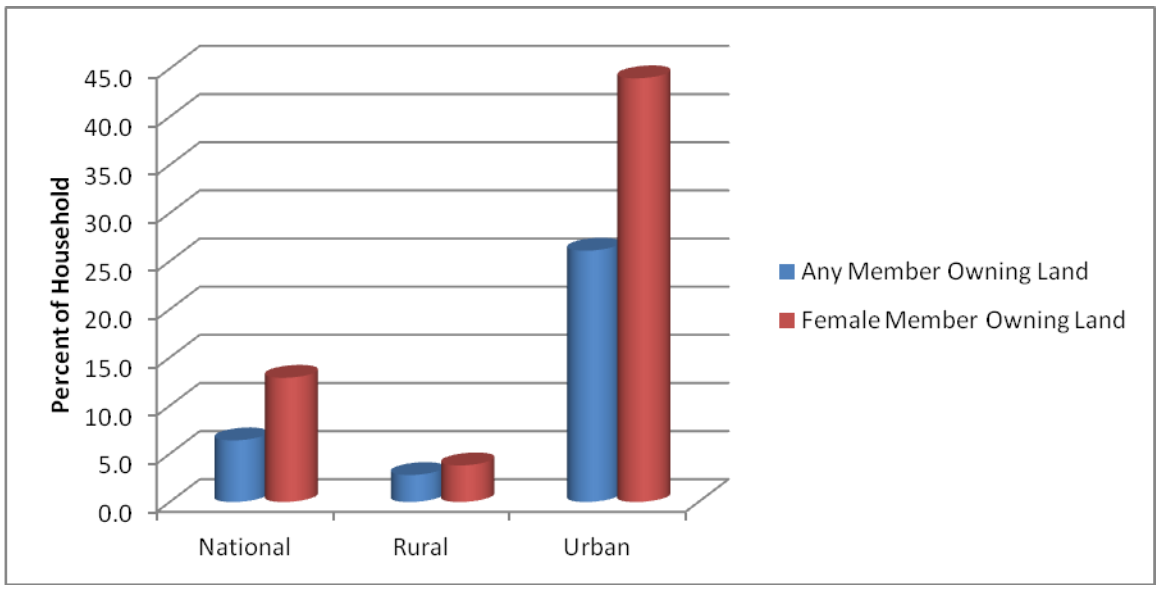
Use of boiled/bottled/filtered water by land ownership any member of the household and female member of the household has been presented in table-7. Interestingly, the use of boiled/bottled/filtered water was high for the household with female member owning land. This indicates that female heads play positive role in the use of hygienic water. The use of hygienic water was 6.4% for households where any member own land compared to 12.9%

household where female member own land. This is true for both rural and urban area. In the rural area such percentage was 2.8% and 3.8% respectively for any member owning land and female member owning land. On the other hand,in the urban area the corresponding percentages were 26.1% and 44.0% respectively.

Table-5.7: Distribution of Household by Use of Boiled/Bottled/filtered water by Ownership & Residence

Land Ownership Status	Residence	Use of Boiled/Bottled /Filtered Water		
		Total	Yes	No
Any Member Owning Land	National	100.0	6.4	93.6
	Rural	100.0	2.8	97.2
	Urban	100.0	26.1	73.9
Female Member Owning Land	National	100.0	12.9	87.1
	Rural	100.0	3.8	96.2
	Urban	100.0	44.0	56.0

Figure-20 :Use of Boiled/Bottled/Filtered Water by Land Ownership



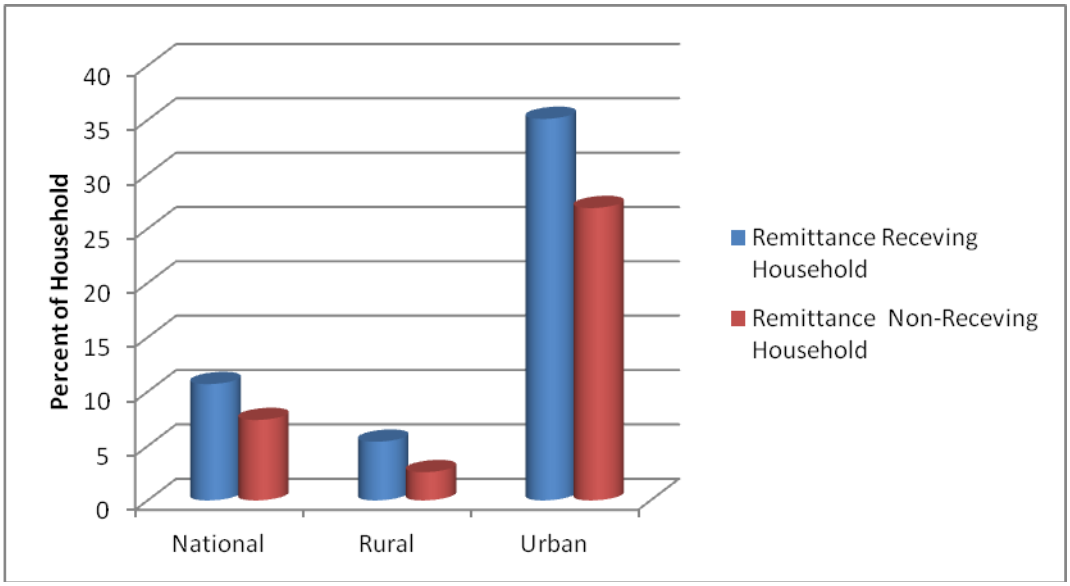
5.8 Use of Boiled/Bottled/Filtered Water by Receiving of Remittance

It is interesting to mention that remittance receiving household use hygienic water at a higher rate than those not receiving remittance. The corresponding percentages were 10.7% and 7.4% respectively. In the rural area such percentages were 5.4% for remittance receiving households as against less than 2.6% for non-remittance receiving households. In the urban area the difference in two groups were narrower, 35.1% verses 26.9%.

Table-5.8: Distribution of Household by Use of Boiled/Bottled/filtered water by Remittance Receiving and Non-Receiving Households

Remittance Received or Not	Residence	Use of Boiled/Bottled /Filtered Water		
		Total	**Yes**	**No**
Remittance Receiving Household	National	100.0	10.7	89.3
	Rural	100.0	5.4	94.6
	Urban	100.0	35.1	64.9
Non-Remittance Receiving Household	National	100.0	7.4	92.6
	Rural	100.0	2.6	97.4
	Urban	100.0	26.9	73.1

Figure-21: Use of Boiled/ Bottled/ Filtered Water by Access to Remittance



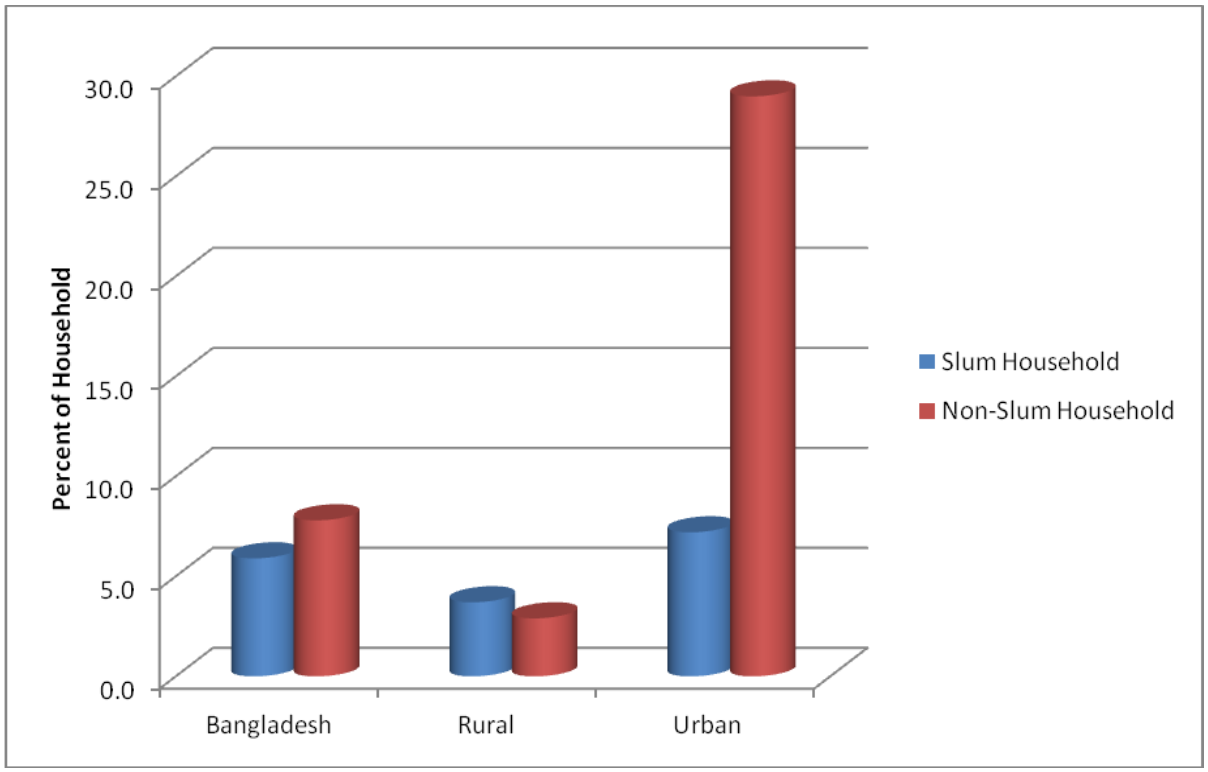
5.9 Use of Boiled/Bottled Filtered Water by Slum & Non-slum Household

Use of boiled/bottled filter water by slum and non-slum households shows that use of such water is higher for non-slum households than slum households. The corresponding percentages are 5.9% and 7.8% respectively in case of slum and non-slum households (Table-5.9). It is notable that rural slum households use boiled/filter water at higher proportion than non-slum households which may be due to their existence in semi-urban area and growth centers. Use of boiled/bottled/ filtered water for non-slum households in the urban area are much higher than slum households. The corresponding percentages are 7.2% and 29.0% respectively.

Table-5.9: Distribution of Households by Use of Boiled/Bottled/Filtered Water by Slum and Non Slum Households

Slum & Non Slum Households	Ridence	Use of Boiled/Bottled /Filtered Water		
		Total	Yes	No
Slum	Bangladesh	100.0	5.9	94.1
	Rural	100.0	3.7	96.4
	Urban	100.0	7.2	92.8
Non Slum	Bangladesh	100.0	7.8	92.2
	Rural	100.0	2.9	97.1
	Urban	100.0	29.0	71.0

Figure-22: Use of Boiled/Bottled/Filtered Water by Slum and Non Slum Households



6. DISTANCE TO SOURCE OF WATER

This chapter deals with in the distance to source of drinking water from the household. This information was collected for the first time in Sample Census-2011. Distance of water source speaks about the geographic location of household & also the availability of ground water in the area. Even in the well to do family have to fetch water from distance place due to salinity or arsenic contamination in the ground water. This chapter discusses the distance to water source by residence, sex of head of household, literacy, level of education of head, land ownership & access to remittance etc.

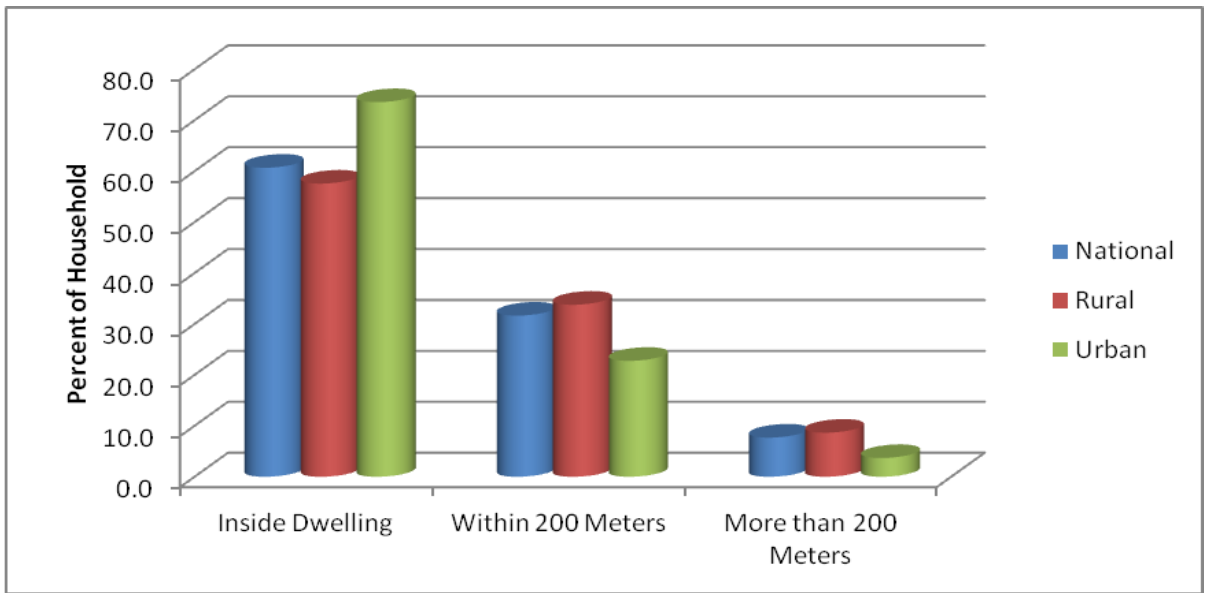
6.1 Distance to Water Source by residence

Distance to water source by residence has been presented in table-6.1. It is observed from the table that at the national level 60.7% have water source inside dwelling 31.6% have water source within 200 meters and 7.7% have water source at a distance more than 200 meters. There exists urban rural variation in the distance of source of water. In the rural area 57.6% have water source inside dwelling, 33.8% have water source with 200 meters and 8.7% have water source lies at a distance 200 meters or more. In the urban area 73.6% have water source inside the dwelling, 22.8% have water source within 200 meters and 3.7% have water source at a distance more than 200 meters.

Table-6.1: Distribution of Household by Distance to Water Source of water by Residence

Residence	Water distance			
	Total	Inside Dwelling	Within 200 Meters	More than 200 Meters
National	100.0	60.7	31.6	7.7
Rural	100.0	57.6	33.8	8.7
Urban	100.0	73.6	22.8	3.7

Figure-23: Distance to Water Source of water by Residence



6.2 Distance of Water Source by Division

Distance of water source from the household by administrative divisions of the country has been presented in Table-6.2. It is notable that there exists wide variation in the distance of water source by divisions of the country. The higher 91.3% households of Rangpur Division reported to have water source inside the dwelling followed by Rajshahi Division (70.1%) and Dhaka Division (65.6%). The lowest 15.5% household of Barisal Division have water source inside the dwelling which may be due to no availability for ground drinking water at the vicinity of the household. The source of water inside dwelling was 2nd lowest in Chittagong (41.8%) and preceded by Sylhet Division (47.7%). Comparatively, the distance to water source was higher for the households of these divisions. Distance to the water source within 200 meters was reported by 58.4% household of Barisal Division followed by 47.7% in Chittagong Division and 40.4% in Sylhet Division. Water distances of more than 200 meters was also focused the highest in Barisal division (26.1%) followed by Sylhet division (11.9%) and Chittagong Division (10.4%)

Table-6.2: Distribution of Household by Distance to Water Source of water by Division and Residence

Division	Residence	Water Distance			
		Total	Inside Dwelling	Within 200 Meters	More than 200 Meters
Barisal	Total	100.0	15.5	58.4	26.1
	Rural	100.0	14.1	58.7	27.2
	Urban	100.0	25.2	55.9	18.9

Division	Residence	Water Distance			
		Total	Inside Dwelling	Within 200 Meters	More than 200 Meters
Chittagong	Total	100.0	41.8	47.7	10.4
	Rural	100.0	37.5	50.9	11.6
	Urban	100.0	57.8	36.1	6.1
Dhaka	Total	100.0	65.6	29.2	5.2
	Rural	100.0	59.7	33.8	6.5
	Urban	100.0	82.2	16.4	1.4
Khulna	Total	100.0	60.8	29.5	9.7
	Rural	100.0	59.5	30.2	10.4
	Urban	100.0	68.0	25.9	6.1
Rajshahi	Total	100.0	70.1	25.1	4.7
	Rural	100.0	69.3	25.7	5.0
	Urban	100.0	74.4	22.3	3.3
Rangpur	Total	100.0	91.3	7.5	1.3
	Rural	100.0	91.0	7.6	1.4
	Urban	100.0	93.1	6.3	0.6
Sylhet	Total	100.0	47.7	40.4	11.9
	Rural	100.0	43.9	43.1	13.1
	Urban	100.0	74.3	21.8	3.9

6.3 Distance of water Source by Zilas

Distance of water source from household by zilas shows wide variation among the zilas with respect to water source. Among the zilas more than 90.0% household in 7 zilas reported to have water source inside dwelling. Among these zilas the highest was in Nilphamari (93.7%) followed by Rangpur (93.5%) and Lalmonirhat (93.4%). The lowest percentage of households with water source inside households was observed in Patuakhali (3.8%) distantly preceded by Barisal (13.5%) and Pirojpur (13.8%). Water source within 200 meters was found the highest 67.8% household in Mymenshing followed by Chandpur (66.2%) and Barisal (62.9%) . Water distance more than 200 meters from household was observed the highest in Patuakhali 32.2% followed by Bandarban (31.5%) and Pirojpur (30.8%).

Table-6.3: Distribution of Household by Distance to Water Source of water by Zila and Residence

Zilas	Water Distance			
	Total	Inside Dwelling	Within 200 Meters	More than 200 Meters
Barguna	100.0	18.1	54.2	27.8
Barisal	100.0	13.5	62.9	23.6
Bhola	100.0	18.0	57.2	24.8
Jhalokati	100.0	41.0	43.7	15.4
Patuakhali	100.0	3.8	64.0	32.2

Zilas	Water Distance			
	Total	Inside Dwelling	Within 200 Meters	More than 200 Meters
Pirojpur	100.0	13.8	56.1	30.1
Bandarban	100.0	21.5	47.0	31.5
Brahmanbaria	100.0	63.0	33.8	3.2
Chanpur	100.0	18.6	66.2	15.2
Chittagong	100.0	41.1	50.6	8.4
Comilla	100.0	54.9	39.2	6.0
Cox's Bazar	100.0	48.2	43.6	8.2
Feni	100.0	44.1	47.3	8.6
Khagrachhari	100.0	26.9	46.7	16.4
Lakshmipur	100.0	38.6	47.2	14.2
Noakhali	100.0	28.9	54.0	17.1
Rangamati	100.0	16.5	60.2	23.3
Dhaka	100.0	80.3	17.7	2.0
Faridpur	100.0	78.8	17.7	3.6
Gazipur	100.0	71.6	26.4	2.0
Gopalganj	100.0	52.4	34.2	13.5
Jamalpur	100.0	84.5	13.5	2.1
Kishoreganj	100.0	48.1	43.4	8.5
Madaripur	100.0	44.9	48.0	7.1
Manikganj	100.0	84.5	13.6	1.9
Munshiganj	100.0	58.2	34.2	7.6
Mymensingh	100.0	19.0	67.8	13.2
Narayanganj	100.0	58.2	38.7	3.1
Narsingdi	100.0	93.0	5.8	1.2
Netrokona	100.0	52.8	35.6	11.6
Rajbari	100.0	58.7	35.6	5.7
Shariatpur	100.0	29.6	56.6	13.8
Sherpur	100.0	80.4	16.6	4.0
Tangail	100.0	80.6	16.7	2.8
Bagarhat	100.0	24.8	47.1	28.0
Chuadanga	100.0	88.8	10.3	0.9
Jessore	100.0	85.5	13.0	1.5
Jhenaidah	100.0	58.1	38.0	4.0
Khulna	100.0	34.7	44.1	21.3
Kushtia	100.0	75.5	21.4	3.1
Magura	100.0	77.0	19.2	3.9
Meherpur	100.0	93.2	6.0	0.8
Narail	100.0	54.6	33.8	11.6
Satkhira	100.0	38.2	45.8	16.1
Bogra	100.0	84.1	14.4	1.5
Joypurhat	100.0	85.1	12.6	2.4
Naogaon	100.0	55.3	34.8	9.9
Natore	100.0	76.1	19.9	4.0

Zilas	Water Distance			
	Total	Inside Dwelling	Within 200 Meters	More than 200 Meters
Chapai–Nawabganj	100.0	53.9	40.3	5.8
Rajshahi	100.0	55.2	38.5	6.3
Pabna	100.0	70.5	24.8	4.7
Sirajganj	100.0	79.3	17.5	3.2
Dinajpur	100.0	88.9	10.0	1.1
Gaibandha	100.0	88.2	9.8	2.0
Kurigram	100.0	91.9	6.3	1.8
Lalmonirhat	100.0	93.4	5.6	1.0
Nilphamari	100.0	93.7	5.1	1.2
Panchagarh	100.0	91.0	8.0	1.0
Ranpur	100.0	93.5	5.7	0.8
Thakurgaon	100.0	91.5	7.7	0.9
Habiganj	100.0	48.4	45.9	5.8
Moulvibazar	100.0	48.4	33.5	18.0
Sunamganj	100.0	30.2	54.9	14.9
Sylhet	100.0	59.9	30.1	10.0

6.4 Distance to Water Source by Sex of Head of Household

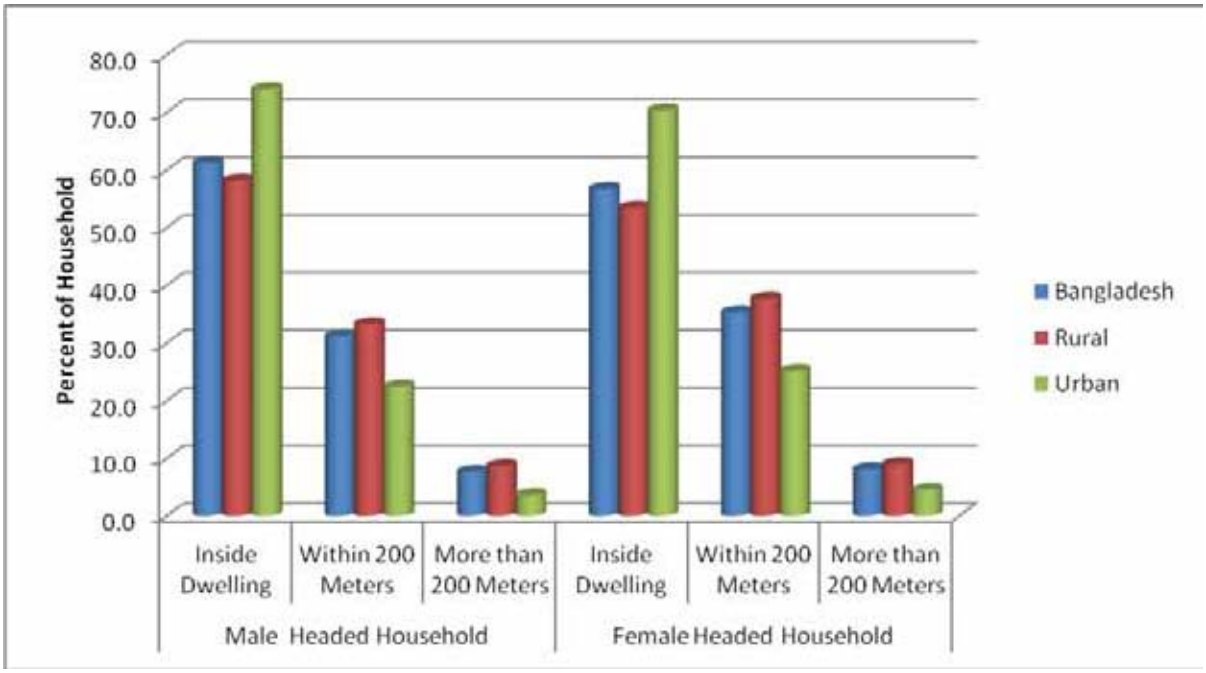
Distance to water source by sex of head of household indicates that there exists some variation to water source by sex of head of household. Among the male headed households 61.2% have water source inside dwelling, 31.1% have water source within 200 meters from dwelling and 7.6% have water source more than 200 meter from dwelling. On the other hand, for the female headed household 56.7% have water source inside dwelling, 35.3% have water source within 200 meters of dwelling and 8.1% have water source more than 200 meters from dwelling.

There exists urban-rural variation in the distance to water source by sex of head of household. Male headed households have higher percentage with respect to water source inside dwelling both in urban & rural area compared to the household headed by female.

Table-6.4: Distribution of Household by Distance to Water Source by Sex of Head

Sex of head	Residence	Water Distance			
		Total	Inside Dwelling	Within 200 Meters	More than 200 Meters
Male	Bangladesh	100.0	61.2	31.1	7.6
	Rural	100.0	58.1	33.3	8.6
	Urban	100.0	74.0	22.4	3.6
Female	Bangladesh	100.0	56.7	35.3	8.1
	Rural	100.0	53.4	37.7	9.0
	Urban	100.0	70.4	25.2	4.5

Figure-24: Distance to Water Source of Water by Sex of Head & Residence



6.5 Distance to Water Source by Literacy Level of Head

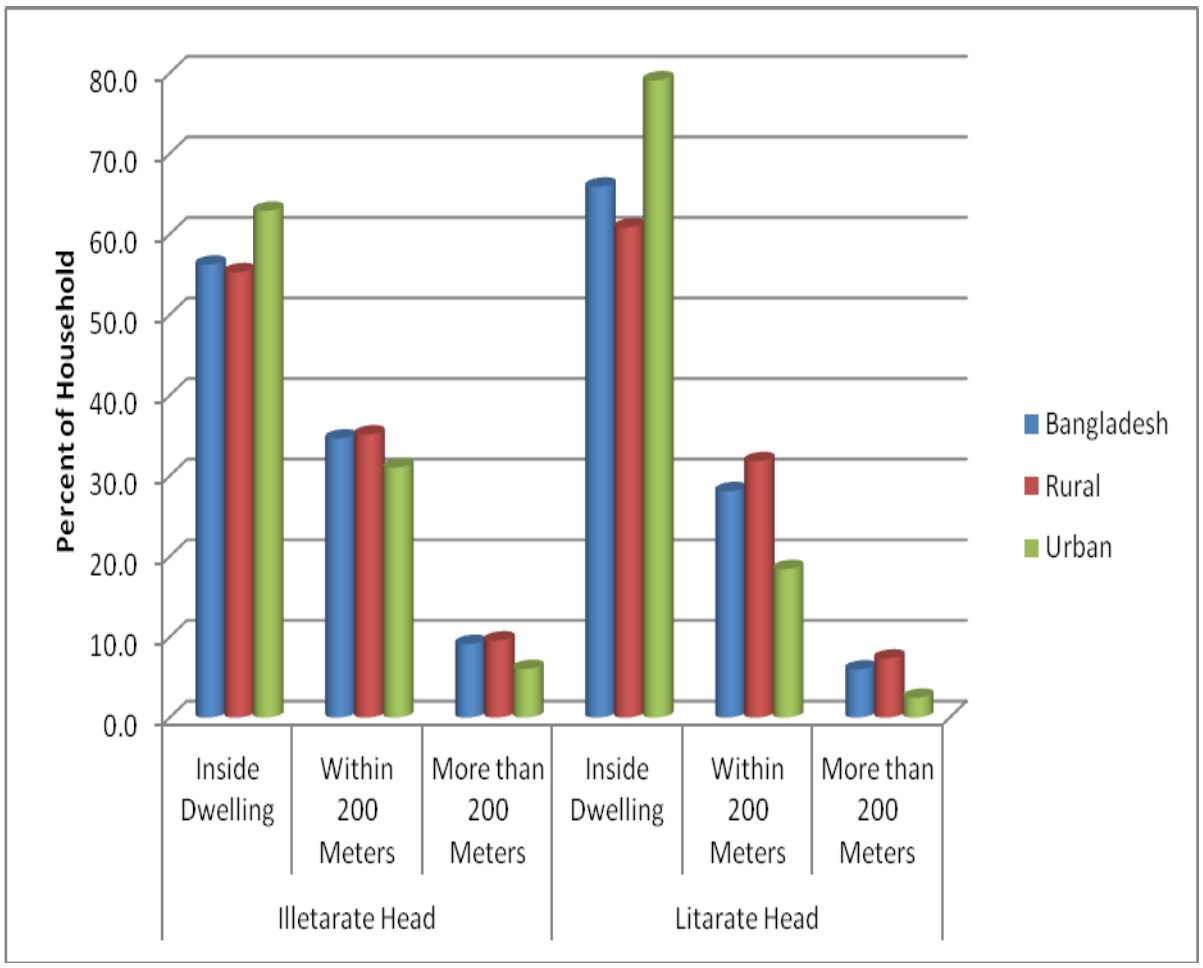
Distance to water source by literacy level of head indicates some variation between household with literate head and illiterate head. For the household with literate head 65.9% have water source inside dwelling, 28.1% have water source within 200 meters of dwelling and 6.0% have distance of water source more than 200 meters. On the contrary, for the illiterate headed households 56.2% have water source within the dwelling, 34.6% have water source within 200 meters of dwelling and 9.1% have water source at a distance more than 200 meters.

The variation in the water source by literacy status of household head in urban and rural area also well pronounced. The percentage of households with water source inside dwelling for literate head was found higher than those for illiterate head. This is true for both in urban and rural area.

Table-6.5: Distribution of Household by Distance to Water Source of water by Literacy Level of Head & Residence

Literacy Level of Head	Residence	Water Distance			
		Total	Inside Dwelling	Within 200 Meters	More than 200 Meters
Illiterate	Bangladesh	100.0	56.2	34.6	9.1
	Rural	100.0	55.3	35.1	9.6
	Urban	100.0	62.9	31.1	6.0
Literate	Bangladesh	100.0	65.9	28.1	6.0
	Rural	100.0	60.8	31.8	7.3
	Urban	100.0	79.1	18.4	2.5

Figure-25: Distance to Water Source of water by Literacy Level of Head & Residence



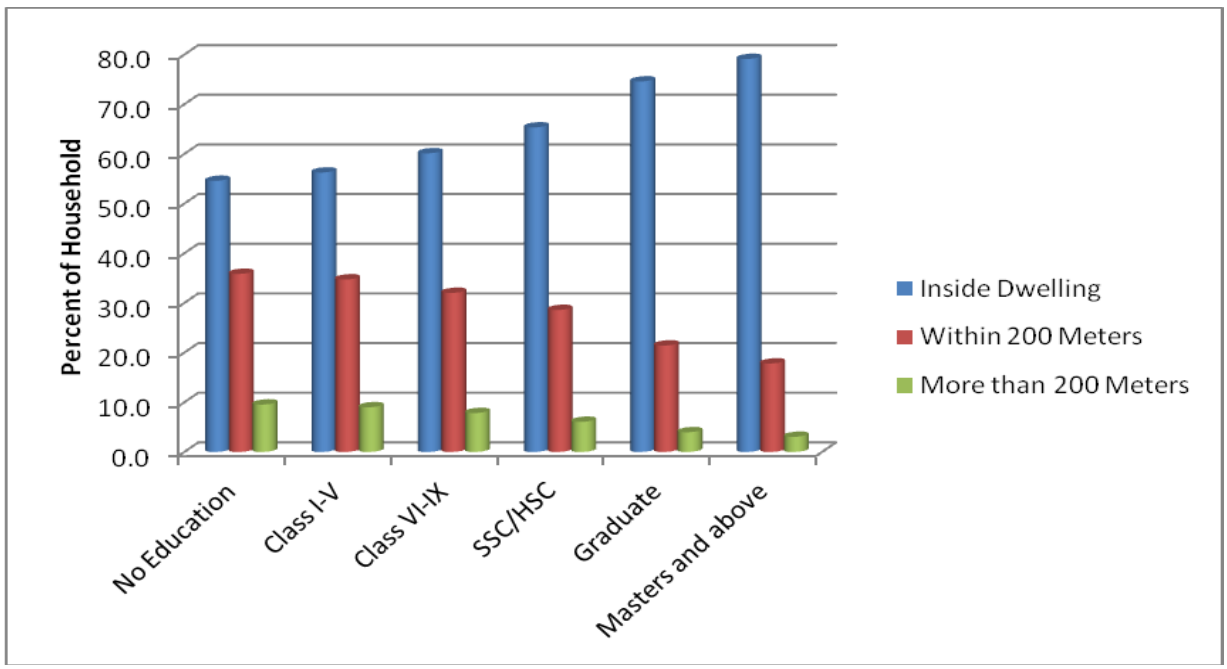
6.6 Distance to Water source by level of Education of Head of Household

Distance to source of water by level of education of head indicates that level of education has bearing on the distance of water source. The water source inside dwelling which is convenient for the dwelling increases with the increase in the level of education of head. It is 54.6% for household having head with no education, 56.3% for households having education class I-V, 60.1% for households having education level VI-IX, 65.3% for households having education level SSC/HSC, 74.6% for households with level of education graduate and 79.1% for households with education of head masters and above. Comparatively, the percentage of households with water source within 200 meters from the dwelling decreases with the increase in the level of education of head. This is also true for distance of water source more than 200 meters.

Table-6.6: Distribution of Household by Distance to Water Source of water by Level of Education by Residence

Residence	Level of Education	Water Distance			
		Total	Inside Dwelling	Within 200 Meters	More than 200 Meters
Bangladesh	No Education	100.0	54.6	35.9	9.6
	Class I-V	100.0	56.3	34.7	9.0
	Class VI-IX	100.0	60.1	32.0	7.8
	SSC/HSC	100.0	65.3	28.6	6.1
	Graduate	100.0	74.6	21.4	4.0
	Masters and above	100.0	79.1	17.8	3.1
Rural	No Education	100.0	52.8	36.8	10.5
	Class I-V	100.0	54.7	35.7	9.6
	Class VI-IX	100.0	58.0	33.5	8.5
	SSC/HSC	100.0	61.8	31.1	7.1
	Graduate	100.0	67.5	27.2	5.3
	Masters and above	100.0	66.9	27.6	5.6
Urban	No Education	100.0	63.3	31.6	5.2
	Class I-V	100.0	66.3	28.6	5.0
	Class VI-IX	100.0	71.3	24.4	4.2
	SSC/HSC	100.0	76.1	21.0	2.9
	Graduate	100.0	85.0	12.9	2.1
	Masters and above	100.0	87.9	10.8	1.2

Figure-26: Distance to Water Source of water by Level of Education of Head & Residence



6.7 Distance to Water Source by Landownership

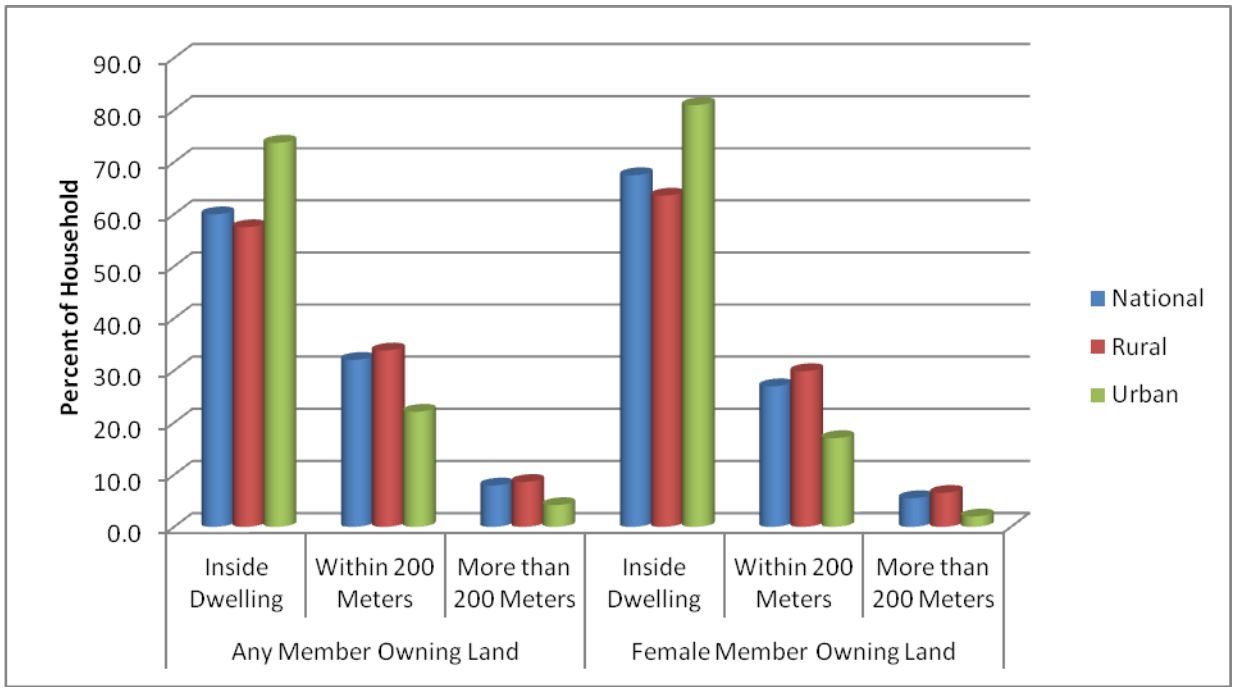
Distance to water source by land ownership of household has been presented in Table-6.7. It is observed that there exists some difference in water source by any member owning land & female member owning land.

It is seen from the table that for any member of the household owning land 60.0% have water source inside dwelling 20.0% have water source within 200 meters of the dwelling and 8.0% have water source more than 200 meters of dwelling. On the other hand, for the female member owning land 67.5% have water source inside dwelling, 27.0% have water source within 200 meters of dwelling and 5.5% have water source at a distance more than two hundred meters. This pattern of distance to water source is also true for the rural area as well as urban area for any member owning land & female member owning land.

Table-6.7: Distribution of Household by Distance to Water Source of water by Land Ownership & Residence

Land Ownership Status	Residence	Water Distance			
		Total	Inside Dwelling	Within 200 Meters	More than 200 Meters
Any Member Owning Land	National	100.0	60.0	32.1	8.0
	Rural	100.0	57.5	33.9	8.6
	Urban	100.0	73.7	22.1	4.2
Female Member Owning Land	National	100.0	67.5	27.0	5.5
	Rural	100.0	63.6	29.9	6.5
	Urban	100.0	81.0	17.0	2.0

Figure-27: Distance to Water Source of water by Land Ownership of Head & Residence



6.8 Distance to Water Source by Remittance Receiving and Non- Receiving Household

Interestingly, there exists no remarkable difference in distance to water source by remittance receiving and non-receiving household.

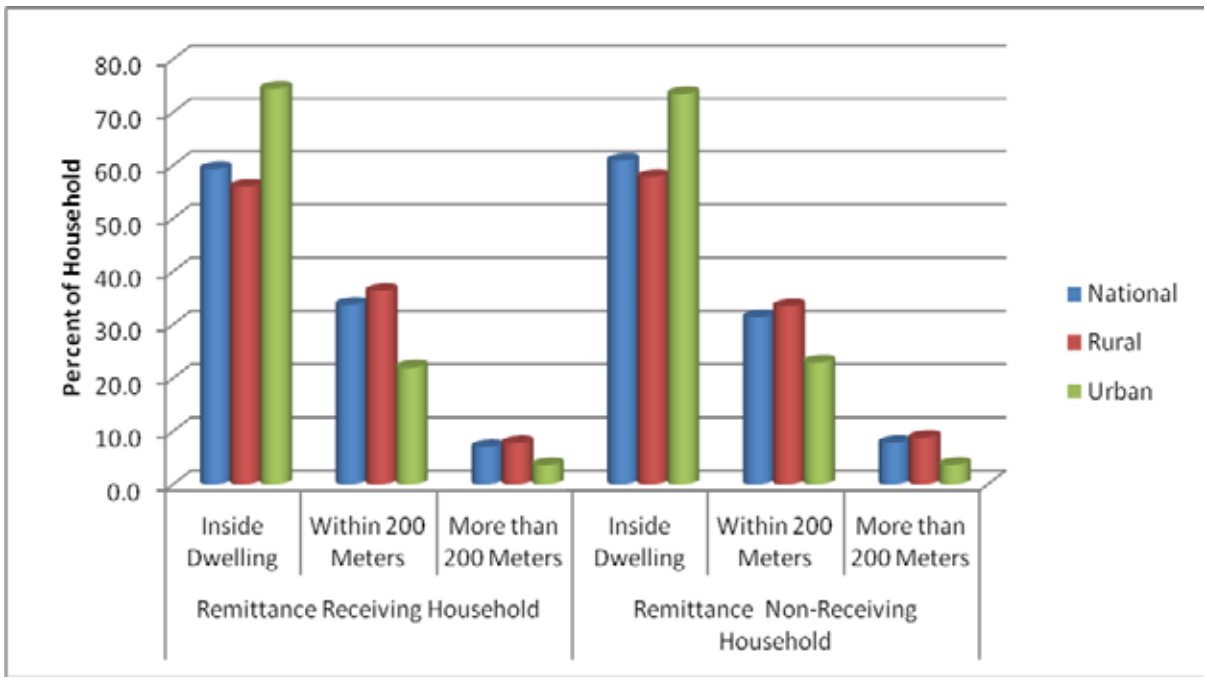
In case of remittance receiving households 59.3% have water source inside dwelling, 33.7% have water source within 200 meters of dwelling and 7.0% have water source at a distance more than 200 meters of dwelling. On the contrary, 60.9% non remittance receiving households have water source inside dwelling, 31.4% have water source within 200 meters of dwelling and 7.8% have water source at a distance more than 200 meters of dwelling.

There exists urban-rural variation in the distance to water source and the remittance receiving and non-receiving households follow the same pattern as the national level.

Table-6.8: Distribution of Household by Distance to Water Source of water by Remittance Receiving and Non-Receiving Households

Remittance Received or Not	Residence	Water Distance			
		Total	Inside Dwelling	Within 200 Meters	More than 200 Meters
Remittance Receiving Household	National	100.0	59.3	33.7	7.0
	Rural	100.0	56.0	36.3	7.7
	Urban	100.0	74.4	21.9	3.6
Non-Remittance Receiving Household	National	100.0	60.9	31.3	7.8
	Rural	100.0	57.8	33.4	8.8
	Urban	100.0	73.5	22.9	3.7

Figure-28: Distance to Water Source of water by Land Ownership of Head & Residence



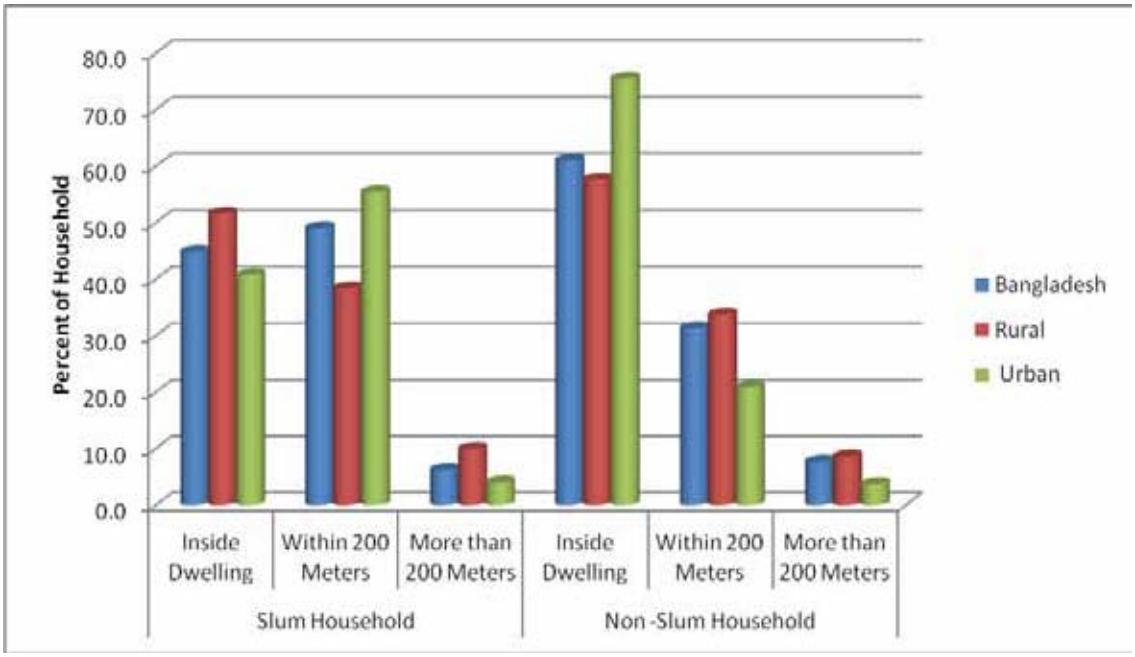
6.9 Distance of Water Source by Slum and Non-slum Households

Distance of water source of households for slum and non-slum households can be seen in Table6.9. It is observed from the table that water source inside dwelling are higher for non-slum households compared to slum households. In case of non-slum households, water source inside dwelling is 61.0% as against 44.8% for the slum households at the aggregate level. In the rural area, the water source inside dwelling was reported by 57.6% non-slum household as against 51.6% for the slum households. In the urban area 75.5% non-slum households have water source inside dwelling against 40.7% for the slum households. water source within 200 meter was reported by 49.0% slum households as against 31.3% non-slum households at the aggregate level. Such source for rural slum is 38.4% as against 33.7% for rural non-slum. In the urban area 55.6% slum households have water source within 200 meters of dwelling as against 20.9% for non-slum households. Water source at a distance more than 200 meters is reported by 6.2% slum households as against 7.7% non-slum households. Such percentage for rural and urban area is 9.9% and 4.0% respectively for slum households as against 8.6% and 3.7% for non-slum households in the rural and urban area respectively.

Table-6.9: Distribution of Households by Distance to Water Source by Slum and Non Slum Households

Slum or Non-slum Household	Residence	Water distance			
		Total	Inside Dwelling	Within 200 Meters	More than 200 Meters
Slum	Bangladesh	100.0	44.8	49.0	6.2
	Rural	100.0	51.6	38.4	9.9
	Urban	100.0	40.7	55.4	4.0
Non Slum	Bangladesh	100.0	61.0	31.3	7.7
	Rural	100.0	57.6	33.7	8.6
	Urban	100.0	75.5	20.9	3.7

Figure-29: Distance to Water Source by Slum and No-slum Household



7. HOUSEHOLD BY TOILET FACILITY

This chapter deals in the households by toilet facilities. Toilet facility is an important indicator for determining the health condition and sanitation situation of the country. It is also an important MDG indicator. The toilet facility is closely associated with the health condition of the members of the households. Many communicable diseases like diarrhoea, dysentery, typhoid may spread through unprotected discharge of human waste. Toilet facility by residence, divisions, zilas, sex of head of household, literacy, level of education, land ownership and access to remittance have been discussed in this chapter.

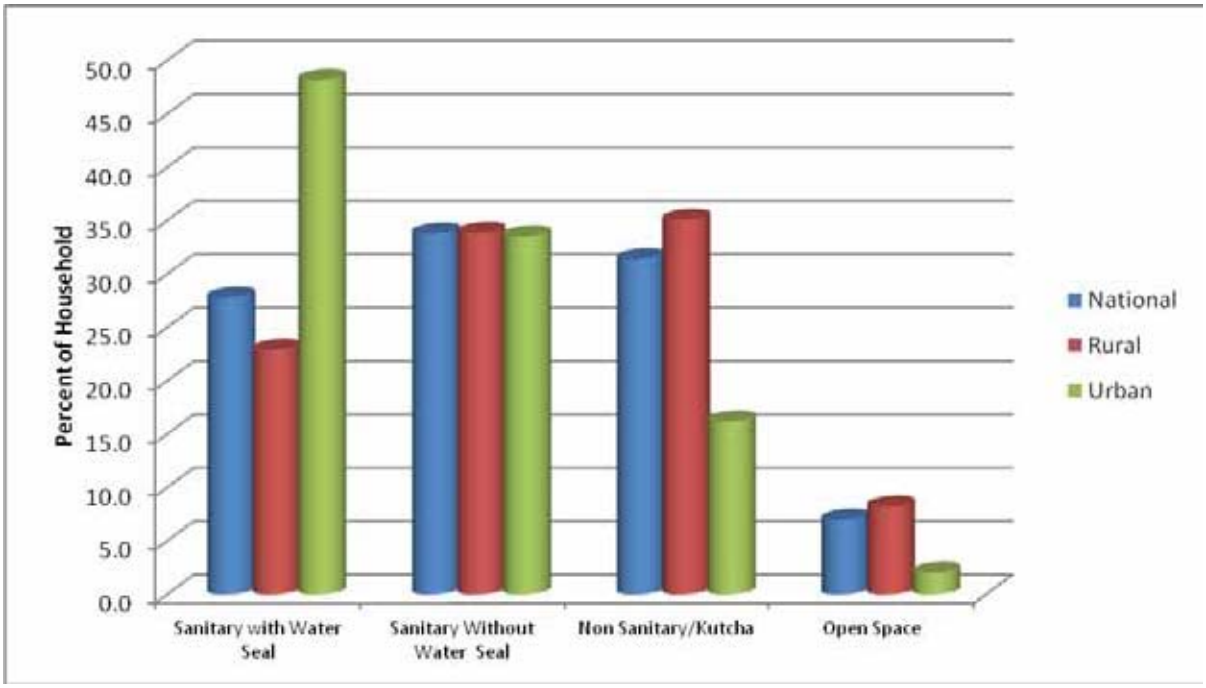
7.1 Toilet Facility by Residence

Toilet facility by residence indicate that at the national level 27.8% household have sanitary latrine with water seal system, 33.8% have sanitary system without water seal, 31.4 have non-sanitary/kutcha latrine and 7.0% have open space(Table 7.1) .There exists urban-rural variation in the use of latrine by the household. In the rural area, 22.9% have sanitary latrine with water seal, 33.9% have sanitary latrine without water seal, and 35.1% have non sanitation/kutcha latrine and 8.4% use open space for discharge of human waste. In the urban area, 48.2% have access to sanitary latrine with water seal system, 33.5% have non sanitary latrine without water seal, and 16.2% have non sanitary/kutcha latrine and 2.1% use open space for discharge of human waste.

Table-7.1: Distribution of Household by Type of Toilet by Residence

Residence	Toilet				
	Total	Sanitary with Water Seal	Sanitary Without Water Seal	Non Sanitary/Kutcha	Open Space
National	100.0	27.8	33.8	31.4	7.0
Rural	100.0	22.9	33.9	35.1	8.2
Urban	100.0	48.2	33.5	16.2	2.1

Figure-30: Type of Toilet by Residence



7.2 Toilet Facility by Divisions

Toilet facilities by divisions in Table-7.2 shows variation in toilet facilities by divisions of the country. The highest 34.0% households of Khulna division have sanitary latrine with water seal followed by Dhaka Division (29.5%) and Rajshahi Division (27.4%). The lowest 19.0% households of Sylhet Division have sanitary latrine with water seal system preceded by Chittagong Division (24.6%) and Rangpur Division (26.6%). The highest percentage of sanitary latrine without water seal was found in Barisal Division (42.0%) followed by Chittagong Division (41.4%) and Dhaka Division (39.5%). The lowest percentage of sanitary latrine without water seal was observed in Rangpur Division (17.0%), preceded by Rajshahi Division (24.9%) and Khulna Division (30.6%). The highest percentage of non-sanitary/kutcha latrine was found in Sylhet Division (41.1%) followed by Rajshahi Division (38.5%) and Rangpur Division (36.4%). There exist urban-rural variation in the toilet facilities by divisions of the country. The highest more than one half (54.0%) of urban household in Rajshahi Division reported to use sanitary latrine with water seal followed by Khulna Division (52.4%) and Dhaka Division (50.3%). In the rural area, the higher 30.5% households of Khulna Division reported the use of sanitary latrine with water seal followed by Rangpur Division (25.3%) and Rajshahi Division (22.4%).

Table-7.2: Distribution of Household by Type of Toilet by Division

Division	Residence	Toilet				
		Total	Sanitary with Water Seal	Sanitary Without Water Seal	Non Sanitary/ Kutcha	Open Space
Barisal	Total	100.0	27.1	42.0	26.6	4.3
	Rural	100.0	24.6	41.9	28.6	4.9
	Urban	100.0	43.8	42.4	13.4	0.3
Chittagong	Total	100.0	24.7	41.8	29.0	4.6
	Rural	100.0	19.3	43.7	31.5	5.5
	Urban	100.0	44.3	34.7	19.6	1.4
Dhaka	Total	100.0	29.5	39.5	26.5	4.6
	Rural	100.0	22.1	40.0	32.1	5.8
	Urban	100.0	50.3	38.0	10.7	1.0
Khulna	Total	100.0	34.0	30.6	33.2	2.3
	Rural	100.0	30.5	30.7	36.2	2.6
	Urban	100.0	52.4	29.8	17.3	0.5
Rajshahi	Total	100.0	27.4	24.9	38.5	9.2
	Rural	100.0	22.4	25.6	41.7	10.3
	Urban	100.0	54.0	21.1	21.5	3.4
Rangpur	Total	100.0	26.6	17.0	36.4	20.0
	Rural	100.0	25.3	16.5	37.2	21.1
	Urban	100.0	36.7	21.0	30.7	11.6
Sylhet	Total	100.0	29.0	31.4	41.1	8.5
	Rural	100.0	15.7	30.8	44.0	9.5
	Urban	100.0	42.4	35.6	20.8	1.2

7.3 Toilet Facilities by Zilas

Toilet facilities by zilas has been presented in Table-7.3. It is observed from that there exists distinct variation in the use of latrines by the households of the zilas of the country. Only more than 40.0% households in 08 zilas of the country reported to to use sanitary latrine with water seal system. Among these zilas, the highest 51.6% households of Gopalgonj zila reported to use sanitary latrine with water seal followed by Panchagarh zila (48.8%) and Jhalokati zila (45.7%). The other zila where more than 40.0% household use sanitary latrine with water seal were Dhaka (44.6%), Rajbari (41.0%), Bagerhat (40.4%), Khulna (44.95%) & Magura (42.8%). The lowest percentage of household using such latrine were observed in Sunamgonj (5.3%) preceded by Khagrachari (6.1%). Bandarban (7.5%) and Rangamati (8.9%). The other zilas where such percentage was less than 10.0% or equivalent were Netrokona (9.1%) and Gaibandha (10.0%). The highest percentage of household who use sanitary latrine without water seal was found in Mymensing (64.4%) followed by Chandpur

(57.2%) and Patuakhali (51.8%). The lowest percentage of household in the zilas reported to use such latrine was found in Thakurgaon (9.5%), Dinajpur (11.1%) and Nilphamari (11.7%). The highest percentage of households who use non sanitary/kutcha latrine was found the highest in Meherpur (59.2%) followed by Rangamati (58.5%) and Khagrachari (57.2%). The lowest use of such latrine was found in Dhaka (7.3%), Gopalgonj (7.8%) and Munshigonj (14.0%). The highest percentage of household (34.6%) in Bandarban use open space for discharge of human waste followed by Naogaon (28.7%) and Gaibandha (28.0%).

Table-7.3: Distribution of Household by Type of Toilet by Zilas

Zilas	Toilet Facility				
	Total	Sanitary with Water Seal	Sanitary Without Water Seal	Non Sanitary/ Kutcha	Open Space
Barguna	100.0	28.2	39.7	27.3	4.7
Barisal	100.0	35.6	37.7	24.9	1.8
Bhola	100.0	11.3	40.7	37.2	10.9
Jhalokati	100.0	45.7	39.4	13.8	1.1
Patuakhali	100.0	18.1	51.8	26.2	3.9
Pirojpur	100.0	33.2	42.5	22.4	2.0
Bandarban	100.0	7.5	20.6	37.4	34.6
Brahmanbaria	100.0	23.4	40.7	33.1	2.8
Chanpur	100.0	11.3	57.2	29.7	1.8
Chittagong	100.0	36.3	40.8	20.2	2.7
Comilla	100.0	19.7	42.7	36.2	1.4
Cox's Bazar	100.0	16.5	30.6	37.4	15.5
Feni	100.0	30.9	49.3	19.5	0.3
Khagrachhari	100.0	6.0	26.4	57.2	10.4
Lakshmipur	100.0	25.2	50.3	20.4	4.1
Noakhali	100.0	28.4	39.8	24.3	7.5
Rangamati	100.0	8.9	22.1	58.5	10.6
Dhaka	100.0	44.6	47.9	7.3	0.3
Faridpur	100.0	42.8	41.1	14.6	1.4
Gazipur	100.0	41.3	38.5	19.4	0.8
Gopalganj	100.0	51.6	39.6	7.8	0.9
Jamalpur	100.0	23.1	31.3	35.6	10.0
Kishoreganj	100.0	12.0	33.7	44.8	9.5
Madaripur	100.0	27.0	44.8	27.7	0.5
Manikganj	100.0	19.1	40.4	36.7	3.9
Munshiganj	100.0	20.4	64.4	14.0	1.2
Mymensingh	100.0	16.7	27.3	44.2	11.8
Narayanganj	100.0	22.3	42.7	32.7	2.3
Narsingdi	100.0	22.1	34.4	38.2	5.4
Netrokona	100.0	9.1	22.4	52.5	16.0
Rajbari	100.0	41.0	38.5	17.0	3.5
Shariatpur	100.0	32.5	48.1	18.5	1.0
Sherpur	100.0	15.3	40.1	39.6	5.0
Tangail	100.0	23.1	36.3	34.9	5.7
Bagarhat	100.0	40.4	44.6	13.5	1.6

Zilas	Toilet Facility				
	Total	Sanitary with Water Seal	Sanitary Without Water Seal	Non Sanitary/ Kutcha	Open Space
Chuadanga	100.0	23.4	19.9	52.5	4.2
Jessore	100.0	34.6	33.4	29.7	2.3
Jhenaidah	100.0	30.1	25.0	42.1	2.8
Khulna	100.0	45.0	32.4	20.4	2.2
Kushtia	100.0	32.4	27.6	37.3	2.8
Magura	100.0	42.8	38.0	18.1	1.1
Meherpur	100.0	22.2	14.9	59.2	3.8
Narail	100.0	33.6	40.1	25.2	1.0
Satkhira	100.0	27.4	27.5	44.3	0.9
Bogra	100.0	30.2	24.4	37.7	7.7
Joypurhat	100.0	35.2	12.2	33.7	18.9
Naogaon	100.0	20.8	12.4	38.2	28.7
Natore	100.0	34.4	41.3	22.0	2.3
Chapai Nawabganj	100.0	18.2	13.9	55.2	12.7
Rajshahi	100.0	30.8	18.3	46.4	4.4
Pabna	100.0	24.2	43.2	30.9	1.7
Sirajganj	100.0	27.6	28.0	41.9	2.5
Dinajpur	100.0	39.2	11.1	27.2	22.5
Gaibandha	100.0	10.0	12.7	49.3	28.0
Kurigram	100.0	28.5	28.2	36.8	6.6
Lalmonirhat	100.0	36.0	23.8	31.2	9.1
Nilphamari	100.0	26.2	11.7	35.7	26.5
Panchagarh	100.0	48.8	26.6	14.7	9.9
Ranpur	100.0	20.5	19.3	38.7	21.6
Thakurgaon	100.0	17.4	9.5	47.6	25.6
Habiganj	100.0	15.0	32.1	48.5	4.4
Moulvibazar	100.0	23.7	31.2	38.8	6.3
Sunamganj	100.0	5.3	26.4	51.7	16.7
Sylhet	100.0	29.1	34.9	29.5	6.5

7.4 Distribution of Household by Toilet Facility and Sex of Head of Household

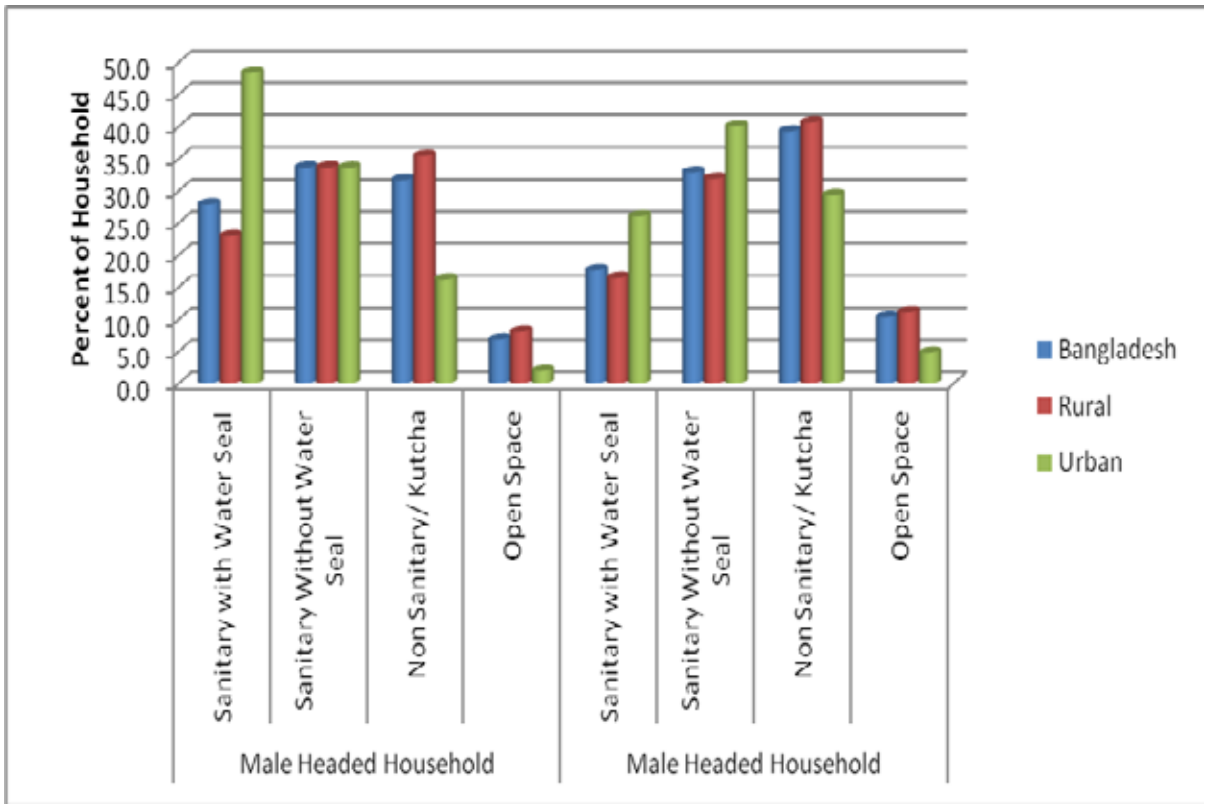
There exist no significant variation in the toilet facility by sex of head of household (Table-7.4) For the male headed household 27.9% use sanitary toilet with water seal as against 27.3% for the female headed household. Sanitary toilet without water seal was reported to use by 33.6% male headed household corresponding to 35.1% female headed household. Household using non sanitary kutcha latrine was used by 31.7% male headed household as against 29.4% female headed household. Open space for discharge of human waste was used by 6.8% male headed household as against 8.2% for female headed household.

There exist no significant variations in the use of toilet by residence between male headed and female headed household.

Table-7.4: Distribution of Household by Type of Toilet by sex of Head of Household

Sex of head	Residence	Type of Toilet				
		Total	Sanitary with Water Seal	Sanitary Without Water Seal	Non Sanitary/ Kutcha	Open Space
Male	Bangladesh	100.0	27.9	33.6	31.7	6.8
	Rural	100.0	22.9	33.6	35.4	8.0
	Urban	100.0	48.3	33.6	16.2	1.9
Female	Bangladesh	100.0	27.3	35.1	29.4	8.2
	Rural	100.0	22.5	35.6	32.5	9.5
	Urban	100.0	46.7	33.3	16.3	2.9

Figure-31:Type of Toilet by Sex of Head of Household



7.5 Toilet Facility by Literacy Status of Head

Toilet facility by literacy of head of household has been presented in Table-7.5. It is observed from the table that there exist variation in the toilet facility by literacy status of population. Household with literate heads have better sanitation facilities than illiterate head. At the aggregate level, for the households with illiterate head, 17.6% used sanitary latrine with water seal, 32.9% used sanitary latrine without water seal, 39.2% used non sanitary latrine/kutcha latrine and 10.3% used open space. On the other hand, for household with

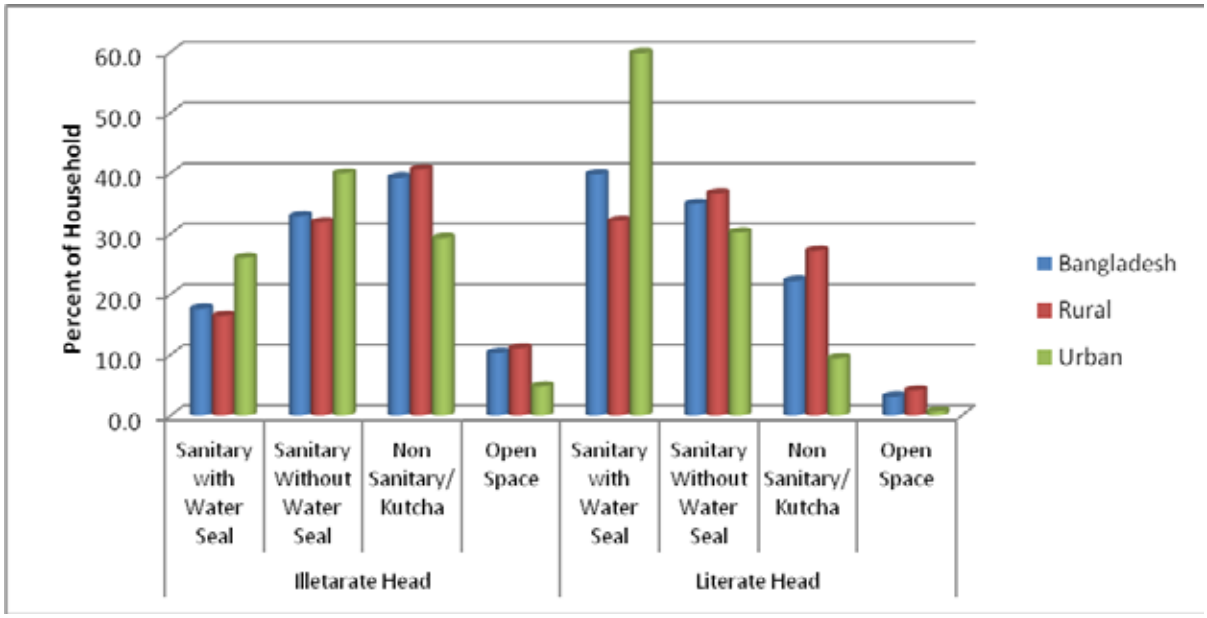
literate head 39.8% used sanitary latrine with water seal, 34.8% used sanitary latrine without water seal, 22.2% used non sanitary/kutcha latrine and 3.1% used open space.

There exists notable urban-urban variation in the type of toilet by literacy status of head.

Table-7.5: Distribution of Household by Type of Toilet by Literacy Level of Head & Residence

Literacy Level of Head	Residence	Toilet				
		Total	Sanitary with Water Seal	Sanitary Without Water Seal	Non Sanitary/ Kutcha	Open Space
Illiterate	Bangladesh	100.0	17.6	32.9	39.2	10.3
	Rural	100.0	16.4	31.9	40.6	11.1
	Urban	100.0	26.0	40.0	29.3	4.8
Literate	Bangladesh	100.0	39.8	34.9	22.2	3.1
	Rural	100.0	32.1	36.7	27.1	4.1
	Urban	100.0	59.8	30.2	9.4	0.6

Figure-32: Type of Toilet by Literacy Level of Head



7.6 Type of Toilet Facility by Level of Education of Head

Type of toilet facility by level of education of head has been presented in Table-7.6. It is notable to mention that, there exists close relation between level of education of head and improved use of sanitation system by the households. The use of improved sanitation system increases with the increase in the level of education of head. The use of sanitary latrine with water seal was 17.0% for the household with head having no education, 21.4% with head

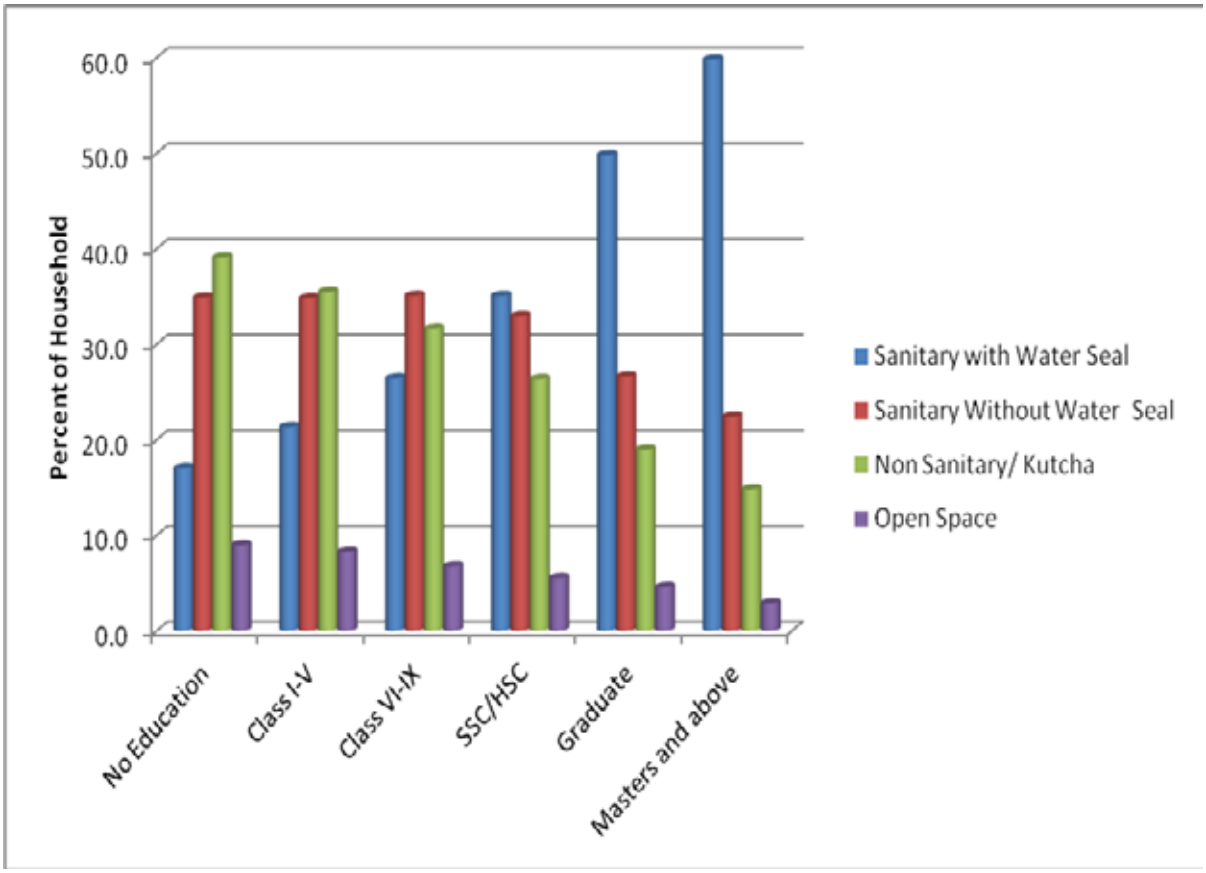
having education level I-IV reported access to sanitary latrine with water seal, 26.4% have such latrine with education of head class VI-IX, 35.1% households have similar latrine with education level SSC/HSC, 49.8% mentioned about the same type of latrine with head having education level graduate and 59.8% have same type of toilet with level of education of head having masters and above. Thus, we can indicate that improvement of education attainment head to improvement in the hygienic excreta disposal system.

It may be noted that improvement in system both in urban & rural area increases with the increases in the level of education.

Table-7.6: Distribution of Household by Type of Toilet by Level of Education by Residence

Residence	Level of Education	Toilet				
		Total	Sanitary with Water Seal	Sanitary Without Water Seal	Non Sanitary/ Kutcha	Open Space
Bangladesh	No Education	100.0	17.0	34.9	39.1	9.0
	Class I-V	100.0	21.4	34.8	35.5	8.3
	Class VI-IX	100.0	26.4	35.1	31.7	6.8
	SSC/HSC	100.0	35.1	33.0	26.4	5.6
	Graduate	100.0	49.8	26.6	19.0	4.6
	Masters and above	100.0	59.8	22.5	14.9	2.9
Rural	No Education	100.0	15.7	32.6	41.9	9.8
	Class I-V	100.0	19.7	33.9	37.3	9.1
	Class VI-IX	100.0	23.6	34.6	34.1	7.8
	SSC/HSC	100.0	27.7	34.0	31.4	6.9
	Graduate	100.0	34.1	31.5	27.3	7.1
	Masters and above	100.0	34.7	30.4	28.4	6.5
Urban	No Education	100.0	23.5	46.2	25.4	4.9
	Class I-V	100.0	32.2	41.0	23.9	2.9
	Class VI-IX	100.0	41.2	38.0	19.0	1.9
	SSC/HSC	100.0	57.5	29.8	11.1	1.6
	Graduate	100.0	72.8	19.5	6.8	0.9
	Masters and above	100.0	77.8	16.8	5.2	0.3

Figure-33: Type of Toilet by Level of Education of Head



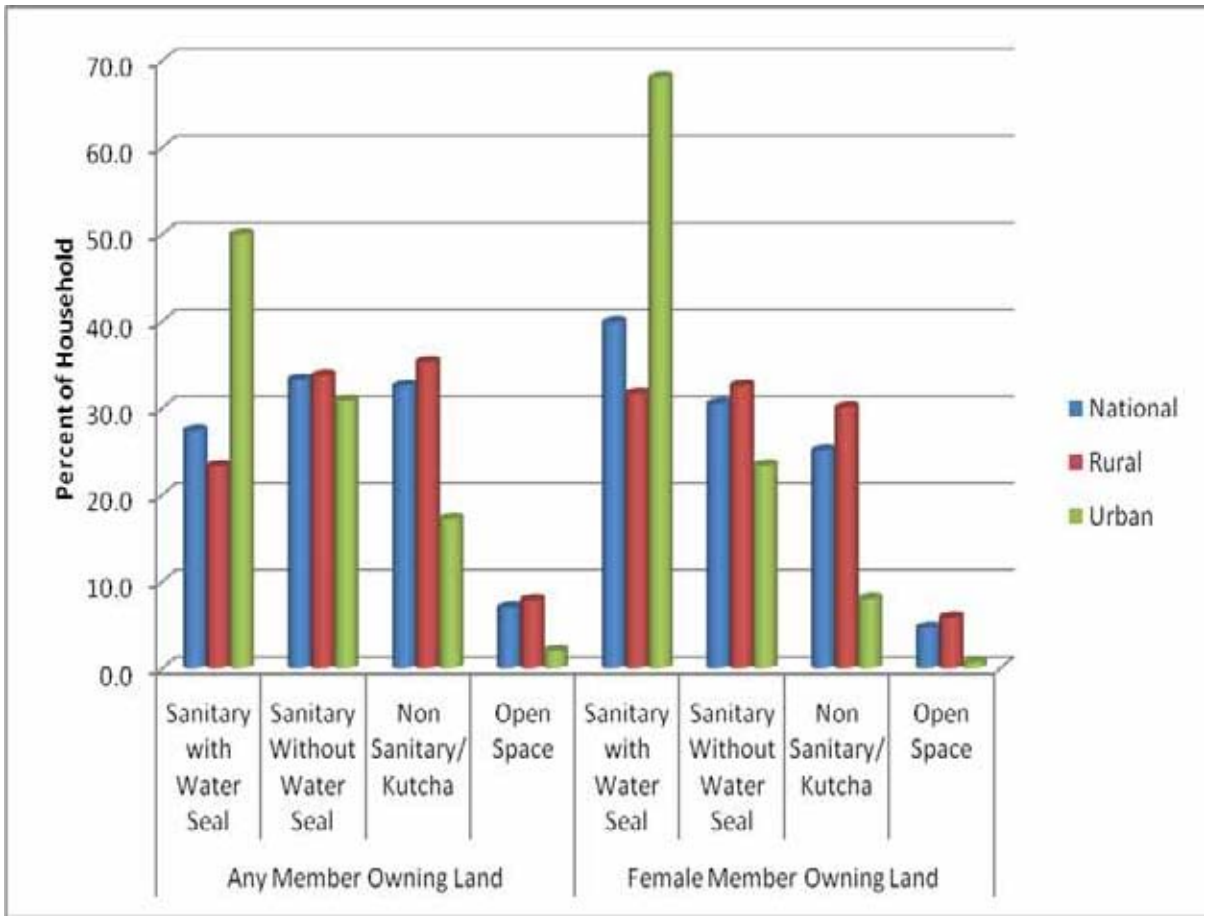
7.7 Type of Toilet Facility by Any Member Owning Land and Female Member Owning Land

Type of toilet facilities by any member owning land and female member owning land has been presented in Table-7.7. It is observed from the table that there exists relationship in the use of toilet facilities between any member owning land and female member owning land. The use of hygienic sanitation system is higher for female member owning land than any member owning land. For any member owning land the use of sanitary latrine with water seal was 27.4%. On the other hand, it was 39.8% for female member owning land. The use of sanitary toilet without water seal, non-sanitary/kutcha & open space was higher for any member owning land than in that of female member owning land . It is 33.2%, 32.5% and 7.0% respectively for any member owning land compared to 30.5%, 25.0% and 4.7% respectively for female member owning land. It is also true for rural and urban area. So it can be concluded that awareness of sanitation is advanced for female member owning land than any member owning land.

Table-7.7: Distribution of Household by Type of Toilet by Land Ownership & Residence

Land Ownership Status	Residence	Toilet				
		Total	Sanitary with Water Seal	Sanitary Without Water Seal	Non Sanitary/ Kutcha	Open Space
Any Member Owning Land	National	100.0	27.4	33.2	32.5	7.0
	Rural	100.0	23.3	33.7	35.2	7.8
	Urban	100.0	49.9	30.8	17.2	2.0
Female Member Owning Land	National	100.0	39.8	30.5	25.0	4.7
	Rural	100.0	31.6	32.5	30.0	5.9
	Urban	100.0	68.0	23.4	8.0	0.7

Figure-34: Type of Toilet by Ownership of Land



7.8 Type of Toilet Facility by Remittance Receiving and Non-Receiving Households

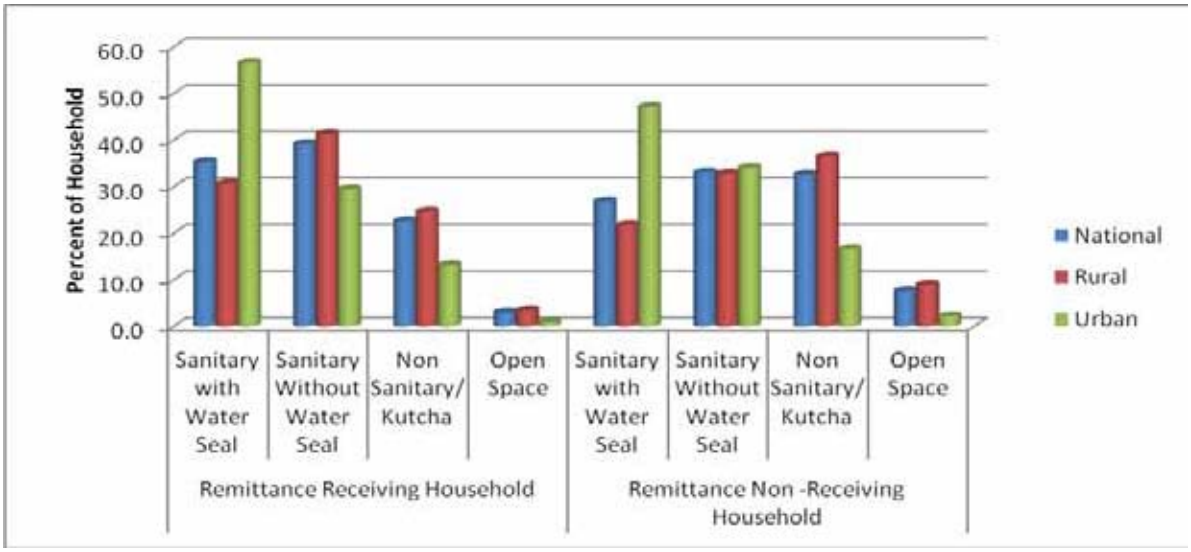
There exists a little variation in the use of toilet facility between remittance receiving and non receiving household. Type of toilet facilities between remittance receiving and non receiving household has been shown in Table-7.8.

In case of remittance receiving households 32.3% use sanitary toilet with water seal, 39.2% use sanitary toilet without water seal, 22.6% use non sanitary/kutcha toilet and 3.0% use open space. On the other hand, for remittance non receiving households 26.8% use sanitary toilet with water seal, 33.0% use sanitary toilet without water seal, 32.6% use non sanitary/kutcha and 7.6% use open space. So, it can be said that remittance receiving households are more conscious about sanitation than the non receiving household. This pattern is also seen both in rural and urban area.

Table-7.8: Distribution of Household by type of Toilet by Remittance Receiving and Non-Receiving Households

Remittance Received or Not	Residence	Toilet				
		Total	Sanitary with Water Seal	Sanitary Without Water Seal	Non Sanitary/ Kutcha	Open Space
Remittance Receiving Household	National	100.0	35.3	39.2	22.6	3.0
	Rural	100.0	30.6	41.3	24.7	3.4
	Urban	100.0	56.6	29.4	13.2	0.8
Remittance non Receiving Household	National	100.0	26.8	33.0	32.6	7.6
	Rural	100.0	21.8	32.8	36.5	8.9
	Urban	100.0	47.2	34.0	16.6	2.2

Figure-35: Type of Toilet by Access to Remittance



7.9 Type of Toilet Facilities for Slum and Non-slum Households

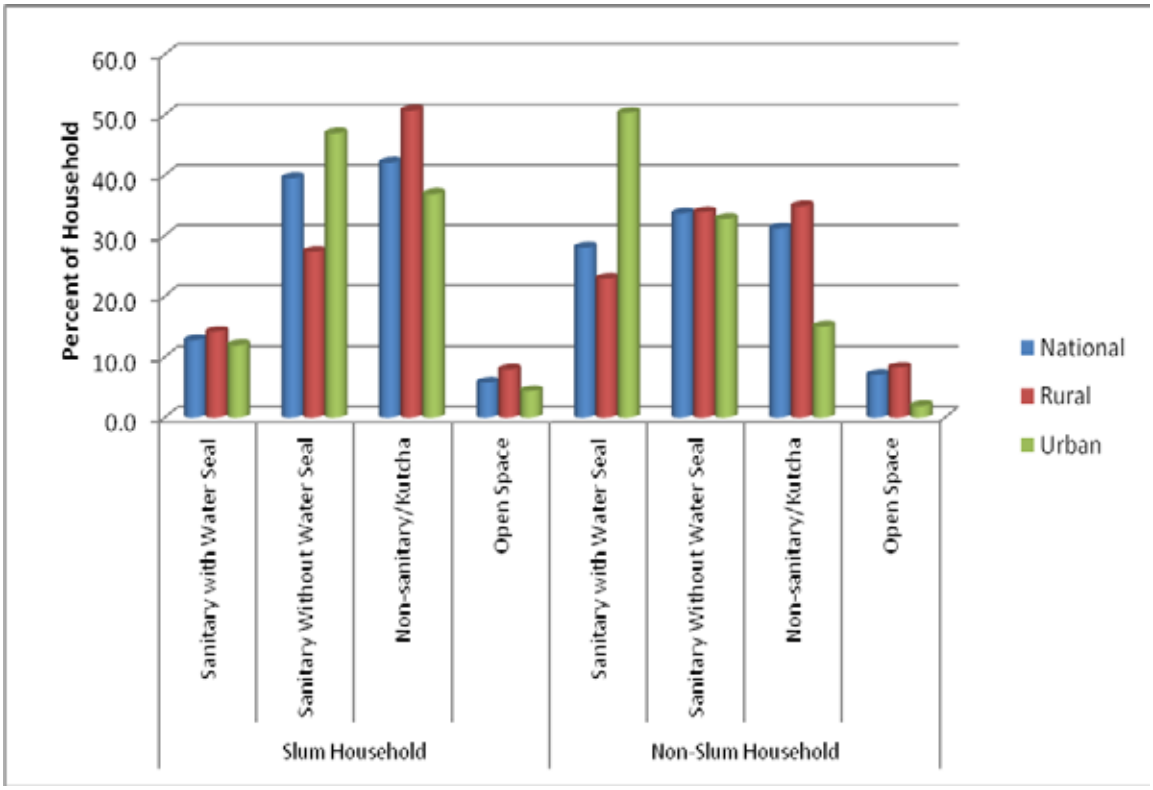
Type of toilet facilities for slum and non slum households have been presented in Table-7.9. It is revealed from the table that at the aggregate level, for slum households, 12.7% use sanitary toilet with water seal, 39.5% use sanitary toilet without water seal 42.1% use non-sanitary /kutcha toilet and 5.7% use open space for discharging human waste. On the other hand, for non-slum household 28.1% household use sanitary toilet with water seal 33.7% use sanitary toilet without water seal 31.2% use non sanitary kutcha toilet and 7.0% use open space. There exists urban-rural variation in the use of different toilet by the rural and urban slum & non-slum households with higher percentage of sanitary with water seal and sanitary without water seal by the non-slum households.

Wide variation is observed among slum and non-slum households in the use of sanitary toilet with water seal in the urban area. The corresponding percentage is 50.3% for non-slum urban households as against 11.9% for the slum urban household.

Table-7.9: Distribution of Household by Type of Toilet Facilities by Slum and Non Slum Households

Slum & Non Slum Households	Residence	Toilet Facilities				
		Total	Sanitary with Water Seal	Sanitary Without Water Seal	Non-sanitary/Kutcha	Open Space
Slum	National	100.0	12.7	39.5	42.1	5.7
	Rural	100.0	14.1	27.4	50.7	7.9
	Urban	100.0	11.9	46.9	36.9	4.3
Non Slum	National	100.0	28.1	33.7	31.2	7.0
	Rural	100.0	22.9	33.9	34.9	8.2
	Urban	100.0	50.3	32.8	15.0	1.9

Figure-36: Type of Toilet for Slum and Non-Slum Household



8. HOUSEHOLD BY DISPOSAL OF SOLID WASTE

This chapter discusses the arrangement in the households for disposal of solid waste. Disposal of solid waste is a vital issue for determining the health condition and environment situation of the country. It is also related to MDG's 4, 5 and 6 goals. This type of facility is closely associated with health condition of the household members as well as surrounding situation. Many communicable diseases like diarrhoea, dysentery, malaria, skin infection may spread through unprotected discharge of solid waste. Disposal of solid waste by residence, divisions, zilas, sex of head of household, literacy, level of education, land ownership access to remittance and slum & non-slum household have been discussed in this chapter.

8.1 Disposal of Solid Waste by Residence

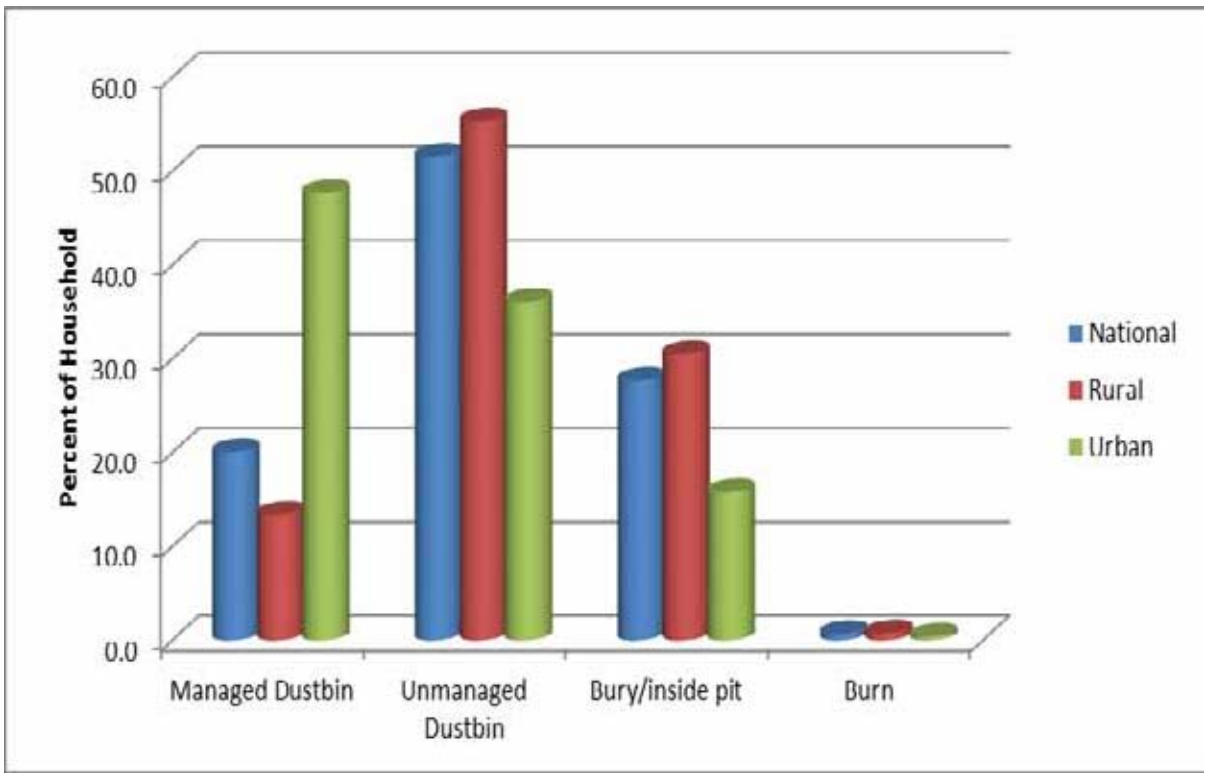
Disposal of solid waste by residence has been presented in Table-8.1. From the table it can be seen that at national level 20.1% household use managed dustbin, 51.6% household use unmanaged dustbin, 27.7% use bury/inside pit and 0.7% burn their waste.

There exists variation in rural and urban areas in the use of managed and unmanaged dustbin. In rural area only 13.4% use manage dustbin where 55.3% use unmanaged dustbin, 30.5% use bury/inside pit and 0.8% use burning system. In urban area 47.7% use managed dustbin, 36.1% use unmanaged dustbin, 15.8% use burry/inside pit and 0.4% use burning system. So in the national level it can be said that urban people are more conscious than rural people about disposal of solid waste.

Table-8.1: Distribution of Household by Disposal of Solid Waste by Residence

Residence	Solid Waste Disposal System				
	Total	Managed Dustbin	Unmanaged Dustbin	Bury/inside pit	Burn
National	100.0	20.1	51.6	27.7	0.7
Rural	100.0	13.4	55.3	30.5	0.8
Urban	100.0	47.7	36.1	15.8	0.4

Figure-37: Solid Waste Disposal Method by Residence



8.2 Disposal of Solid Waste by Division

Disposal of solid waste by divisions has been presented in Table-8.2. There exists variation in the disposal of solid waste by divisions of the country. The highest 27.7% household use managed dustbin in Dhaka division followed by Khulna division (23.5%) and Sylhet (22.2%). The lowest 10.1% household of Rangpur division use managed dustbin preceded by Rajshahi 11.2% and Barisal division (13.0%). The highest percentage of household used unmanaged dustbin was found in Barisal division (67.5%) followed by Sylhet (62.7%) and Chittagong division (60.8%). The highest percentage of use of bury/inside pit was observed in Rangpur division (50.0%) followed by Khulna division (43.1%) and Rajshahi division (36.4%). The highest percentage with the use of burning system of waste was found in Chittagong division (2.0%)followed by in Barisal division (1.1%) and Rangpur division (0.7%). There exists variation in rural and urban area by solid waste management system. In rural area highest percentage of household use managed dustbin is observed Khulna division(22.0%) followed by Sylhet division (18.0%). In urban area the highest percentage of household use managed dustbin was observed in Dhaka division (63.5%) followed by Sylhet division (51.1%)and Chittagong Division (46.8%).

Table-8.2: Distribution of Household by Disposal of Solid Waste by Division

Division	Residence	Solid Waste Disposal System				
		Total	Managed Dustbin	Unmanaged Dustbin	Bury/inside pit	Burn
Barisal	Total	100.0	13.0	67.5	18.5	1.1
	Rural	100.0	10.3	70.4	18.4	0.9
	Urban	100.0	31.1	47.6	18.8	2.5
Chittagong	Total	100.0	18.8	60.8	18.5	2.0
	Rural	100.0	11.2	65.3	21.4	2.2
	Urban	100.0	46.8	44.3	7.8	1.0
Dhaka	Total	100.0	27.7	52.7	19.2	0.4
	Rural	100.0	15.0	61.7	22.7	0.6
	Urban	100.0	63.5	27.4	9.1	0.1
Khulna	Total	100.0	23.5	33.2	43.1	0.2
	Rural	100.0	22.0	32.7	45.1	0.2
	Urban	100.0	31.6	35.7	32.3	0.4
Rajshahi	Total	100.0	11.2	52.3	36.4	0.1
	Rural	100.0	8.6	54.1	37.3	0.1
	Urban	100.0	25.3	43.1	31.5	0.1
Rangpur	Total	100.0	10.1	39.3	50.0	0.7
	Rural	100.0	9.4	38.1	51.9	0.7
	Urban	100.0	15.3	48.5	35.8	0.4
Sylhet	Total	100.0	22.2	62.7	14.8	0.3
	Rural	100.0	18.0	65.5	16.1	0.3
	Urban	100.0	51.1	42.9	5.7	0.3

8.3 Disposal of Solid Waste by Zilas

Table-8.3 presents the situation of disposal of solid waste by zilas of the country. It is notable that only more than 30.0% households in 06 zilas of the country reported to use managed dustbin for disposal of solid waste. Among these zilas the highest 68.0% households of Dhaka zila use managed dustbin, followed by Satkhira (57.2%), Chittagong (35.8)%, Gopalgonj (35.3%), Jessore (31.0%) and Sylhet (30.8%). The lowest percentage of households reported to use managed dustbin is Kushtia. Only 2.2% households of this zila use managed dustbin preceded by Chandpur 3.3%, Sherpur 3.6% and Patuakhali (4.1%). It is noteworthy that more than 70.0% households of 16 zilas out of 64 zilas use unmanaged dustbin. Among these zilas the highest percentage is in Bogra zila and it is 92.5% followed by Noakhali (86.6%), Thakurgaon (85.0%), Sherpur (83.3%), Bhola (81.4%), Lakshmipur (81.0%), Patuakhali (80.3%), Tangail (79.9%), Munshigonj (79.6%),Khagrachari (78.3%), Narayangonj (76.9%), Sunamgonj (75.5%), Rajbari (72.3%), Dinajpur (71.8%), Rangamati (71.0%) & Manikgonj (70.1%.) The lowest percentage of households reported to use unmanaged dustbin is Joypurhat (12.3%) preceded by Lalmonirhat (13.4%), Nilphamari

(16.6%), Satkhira (19.8%) and Gaibandha (21.1%). The highest percentage of household reported to use bury/inside pit is Joypurhat Zila and it is (78.4%) followed by Nilphamari (77.5%), Kushtia (72.0%) and Rangpur (70.3%). the lowest percentage of households who use bury/inside pit is Bogra zila and it is only 1.00% proceeded by Narayangonj 6.70% and Dhaka zila 6.98%. The highest percentage of households reported to use burning system is Cox'sbazar (7.3%)followed by Bandarban (6.0%), Rangamati (4.6%)& Chandpur (3.2%) .

Table-8.3: Distribution of Household by Disposal of Solid Waste by Zilas

Zilas	Solid Waste Disposal System				
	Total	Managed Dustbin	Unmanaged Dustbin	Bury/inside pit	Burn
Barguna	100.0	29.0	60.8	9.4	0.8
Barisal	100.0	11.1	59.7	27.7	1.5
Bhola	100.0	7.4	81.4	10.3	0.8
Jhalokati	100.0	21.7	57.7	19.6	0.9
Patuakhali	100.0	4.1	80.3	14.4	1.3
Pirojpur	100.0	17.8	57.1	24.4	0.7
Bandarban	100.0	13.5	68.2	12.4	6.0
Brahmanbaria	100.0	28.7	47.5	23.6	0.2
Chanpur	100.0	3.3	59.5	34.0	3.2
Chittagong	100.0	35.8	54.2	8.0	2.0
Comilla	100.0	13.5	56.5	28.9	1.1
Cox's Bazar	100.0	8.0	59.5	25.2	7.3
Feni	100.0	24.1	46.8	27.5	1.6
Khagrachhari	100.0	10.2	78.3	9.7	1.8
Lakshmipur	100.0	6.6	81.0	12.1	0.3
Noakhali	100.0	6.3	86.6	7.0	0.1
Rangamati	100.0	8.2	71.0	16.2	4.6
Dhaka	100.0	68.0	25.0	7.0	0.0
Faridpur	100.0	16.0	67.9	16.1	0.1
Gazipur	100.0	25.7	54.0	19.9	0.5
Gopalganj	100.0	35.3	37.9	25.5	1.3
Jamalpur	100.0	6.4	37.8	55.0	0.8
Kishoreganj	100.0	11.9	43.2	43.8	1.1
Madaripur	100.0	14.3	60.9	23.7	1.1
Manikganj	100.0	6.9	70.1	23.1	0.0
Munshiganj	100.0	10.9	79.6	9.3	0.3
Mymensingh	100.0	17.8	59.6	22.4	0.2
Narayanganj	100.0	15.3	76.9	6.7	1.1
Narsingdi	100.0	19.4	59.3	21.3	0.0
Netrokona	100.0	7.6	63.0	29.3	0.1
Rajbari	100.0	7.6	72.3	20.0	0.1
Shariatpur	100.0	25.5	44.1	30.2	0.3
Sherpur	100.0	3.6	83.3	13.0	0.1

Zilas	Solid Waste Disposal System				
	Total	Managed Dustbin	Unmanaged Dustbin	Bury/inside pit	Burn
Tangail	100.0	6.7	79.9	11.8	1.6
Bagarhat	100.0	10.2	62.7	27.0	0.1
Chuadanga	100.0	16.8	25.7	57.0	0.4
Jessore	100.0	30.9	35.4	33.4	0.3
Jhenaidah	100.0	21.3	26.9	51.8	0.0
Khulna	100.0	28.9	34.2	36.7	0.3
Kushtia	100.0	2.2	25.3	72.0	0.5
Magura	100.0	11.9	30.6	57.3	0.2
Meherpur	100.0	15.4	31.8	52.8	0.0
Narail	100.0	10.2	52.1	37.4	0.3
Satkhira	100.0	57.2	19.8	22.9	0.2
Bogra	100.0	6.6	92.5	1.0	0.0
Joypurhat	100.0	9.2	12.3	78.4	0.1
Naogaon	100.0	19.6	30.5	49.8	0.0
Natore	100.0	8.7	53.9	37.4	0.0
Chapai – Nawabganj	100.0	12.3	63.4	23.8	0.5
Rajshahi	100.0	16.9	26.5	56.6	0.0
Pabna	100.0	9.9	69.4	20.3	0.4
Sirajganj	100.0	6.8	39.7	53.5	0.0
Dinajpur	100.0	6.8	71.8	21.4	0.1
Gaibandha	100.0	15.4	21.1	63.0	0.5
Kurigram	100.0	12.6	35.0	50.1	2.3
Lalmonirhat	100.0	17.9	13.4	68.0	0.7
Nilphamari	100.0	5.6	16.6	77.5	0.3
Panchagarh	100.0	10.4	62.4	25.3	1.9
Ranpur	100.0	7.7	21.8	70.3	0.2
Thakurgaon	100.0	7.3	85.0	7.7	0.1
Habiganj	100.0	24.5	46.3	28.0	1.2
Moulvibazar	100.0	20.5	69.3	10.2	0.0
Sunamganj	100.0	10.0	75.5	14.3	0.2
Sylhet	100.0	30.8	60.0	9.2	0.1

8.4 Disposal of Solid Waste by Sex of Head of Household

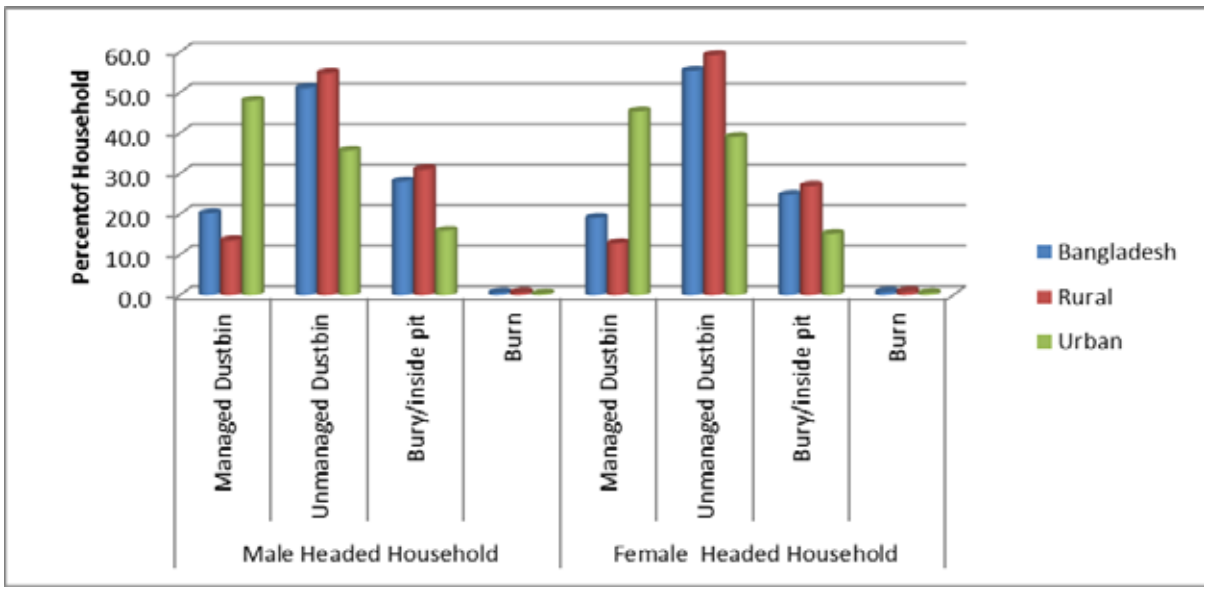
There exists distinct variation between the use of managed and unmanaged dustbin (Table-8.4) by sex of head of household. At national level for male headed household only 20.2% use managed dustbin where 51.1% use unmanaged dustbin. For female headed household only 19.1% use managed dustbin where 55.4% use unmanaged dustbin. For male headed 28.1% use bury/inside pit and 0.7% use burning system for disposal of solid waste. For female headed household 24.7% use bury/inside pit and 0.9% use burning system.

This pattern is also seen in the use of dustbin by residence between male headed and female headed household.

Table-8.4: Distribution of Household by Disposal of Solid Waste by sex of Head of Household

Sex of head	Residence	Solid Waste Disposal System				
		Total	Managed Dustbin	Unmanaged Dustbin	Bury/ inside pit	Burn
Male	National	100.0	20.2	51.1	28.1	0.7
	Rural	100.0	13.5	54.8	31.0	0.7
	Urban	100.0	48.0	35.7	15.9	0.4
Female	National	100.0	19.1	55.4	24.7	0.9
	Rural	100.0	12.8	59.3	27.0	1.0
	Urban	100.0	45.4	39.0	15.1	0.6

Figure-38: Solid Waste Disposal of Household by Sex of Head of Household



8.5 Disposal of Solid Waste by Literacy Level of Head & Residence

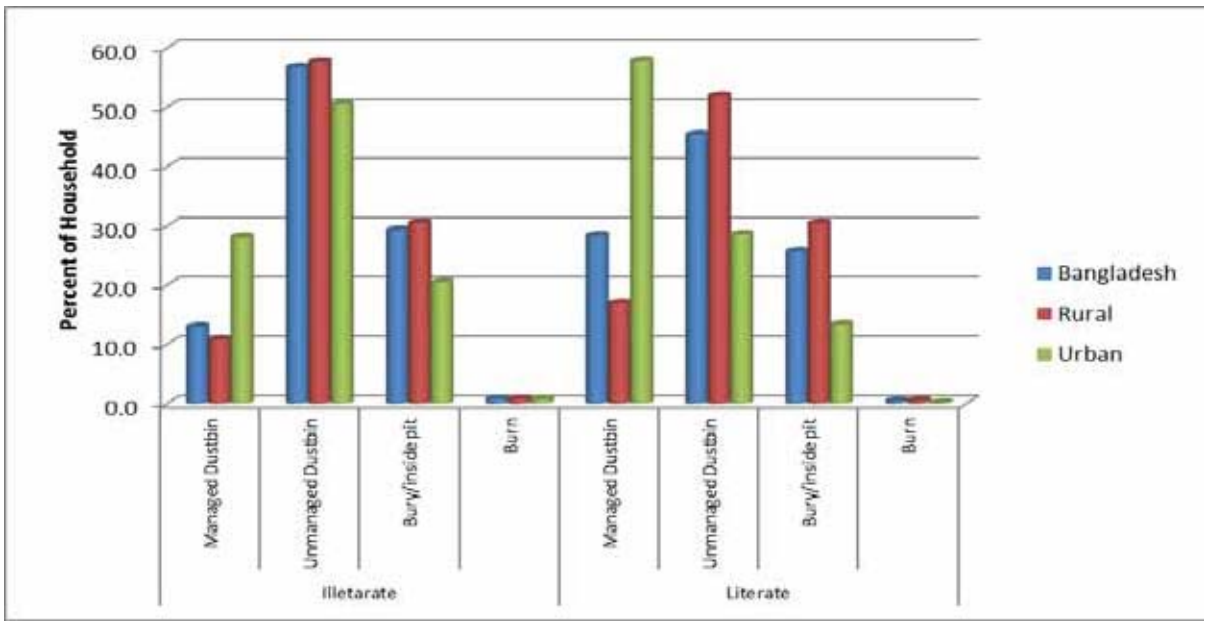
Use of solid waste disposal system by literacy of head of household has been presented in Table-8.5. It is observed from the table that there exists variation in managed dustbin by literacy rate of head of household. Household with literate heads use better dustbin system than illiterate heads. At the country level, for the households with illiterate head, 13.0% use managed dustbin, 56.8% use unmanaged dustbin, 29.3% use bury/inside pit and 0.9% use burn system. On the other hand, for the households with literate head, 28.4% use managed dustbin, 45.4% use unmanaged dustbin, 25.7% use bury/inside pit and 0.5% use burning system.

For illiterate head there exists notable urban-rural variation in the use of managed dustbin & bury/inside pit and no significant urban-rural variation in the use of unmanaged dustbin and burning system. For literate head there exists notable urban-rural variation in the use of all dustbin system.

Table-8.5: Distribution of Household by Disposal of Solid Waste by Literacy Level of Head & Residence

Literacy Level of Head	Residence	Solid Waste Disposal System				
		Total	Managed Dustbin	Unmanaged Dustbin	Bury/inside pit	Burn
Illiterate	National	100.0	13.0	56.8	29.3	0.9
	Rural	100.0	10.9	57.7	30.6	0.9
	Urban	100.0	28.1	50.5	20.5	0.8
Literate	National	100.0	28.4	45.4	25.7	0.5
	Rural	100.0	17.0	51.9	30.5	0.6
	Urban	100.0	57.9	28.6	13.4	0.2

Figure-39: Solid Waste Management by Literacy of Head



8.6 Disposal of Solid Waste by Level of Education of Head

Disposal of solid waste by level of education of head has been presented in Table-8.6. It is notable to mention that, there exists close relation between level of education of head and improved use of dustbin system by the households. The use of improved dustbin system increases with the increase in the level of education of head. The use of managed dustbin is 16.0% for the household with head having no education, 14.9% with head having education level I-V, 18.0% have the same such of system with education of head class VI-IX, 24.7%

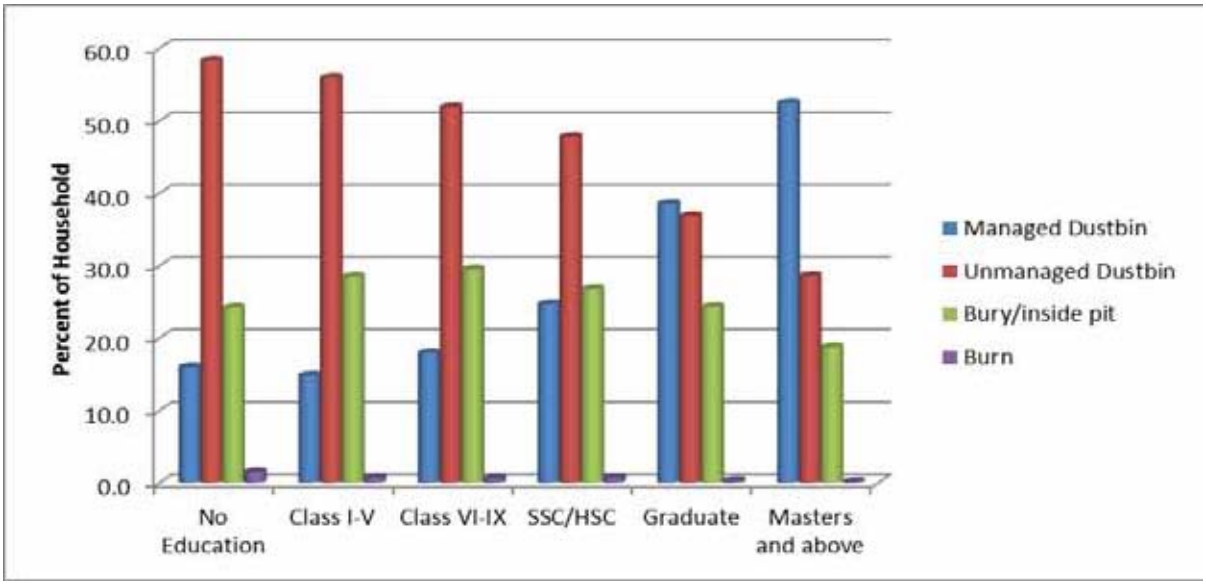
households have similar dustbin with education level SSC/HSC, 38.5% mentioned about the same type of dustbin with head having education level graduation and 52.5% have same type of dustbin with level of education of having masters and above. Thus, we can indicate that improvement of educational attainment of head improves in the hygienic solid waste disposal system.

It may be noted that improvement in system both in urban & rural area increases with the increases with the increase in the level of education.

Table-8.6: Distribution of Household by Disposal of Solid Waste by Level of Education & Residence

Residence	Level of Education	Solid Waste Disposal System				
		Total	Managed Dustbin	Unmanaged Dustbin	Bury/inside pit	Burn
Bangladesh	No Education	100.0	16.0	58.3	24.2	1.5
	Class I-V	100.0	14.9	56.0	28.5	0.7
	Class VI-IX	100.0	18.0	51.9	29.5	0.6
	SSC/HSC	100.0	24.7	47.8	26.8	0.7
	Graduate	100.0	38.5	36.8	24.3	0.3
	Masters and above	100.0	52.5	28.6	18.8	0.2
Rural	No Education	100.0	11.5	60.1	26.7	1.7
	Class I-V	100.0	11.9	57.5	29.9	0.7
	Class VI-IX	100.0	13.8	53.9	31.7	0.6
	SSC/HSC	100.0	15.1	53.3	30.6	0.8
	Graduate	100.0	17.9	48.4	33.3	0.4
	Masters and above	100.0	19.1	46.9	33.7	0.3
Urban	No Education	100.0	37.7	49.7	12.1	0.4
	Class I-V	100.0	33.6	46.5	19.3	0.7
	Class VI-IX	100.0	39.6	41.6	18.4	0.4
	SSC/HSC	100.0	54.0	30.4	15.3	0.4
	Graduate	100.0	68.8	19.8	11.2	0.2
	Masters and above	100.0	76.4	15.4	8.1	0.0

Figure-40: Solid Waste Disposal by Level of Education of Head



8.7 Disposal of Solid Waste by Land Ownership by Residence

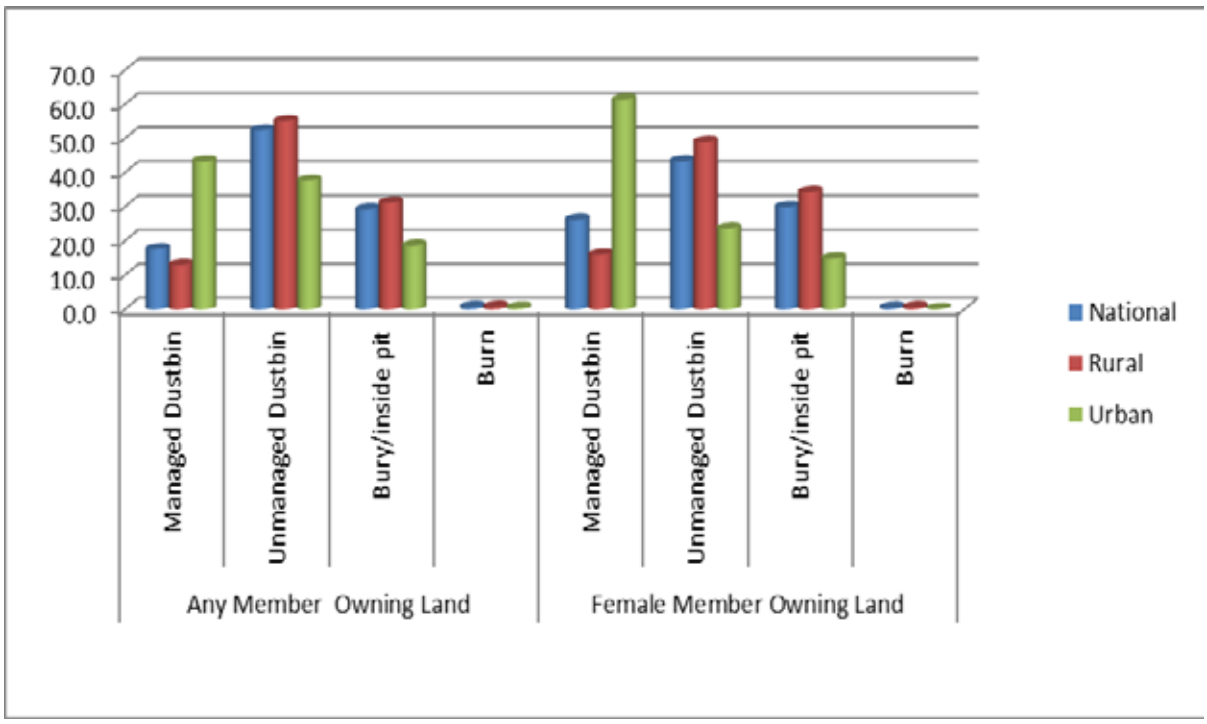
Disposal of solid waste by any member owning land and female member owning land has been presented in Table-8.7. It is observed from the table that there are close relation in the use of dustbin between any member owning land and female member owning land. The use of managed dustbin system is higher for female member owning land than any member owning land in all residences. At the national level, 17.6% households with any member owning land household use managed dustbin whereas 26.2% female member owning land use managed dustbin, 52.4% any member owning land use unmanaged dustbin where 43.3% female member use unmanaged dustbin, 29.3% any member owning land use bury/inside pit on the other hand 29.9% female member use this type of dustbin. 0.8% any member owning land use burning system and 0.6% female member owning land use this system.

This feature is also true for rural- urban area.

Table-8.7: Distribution of Household by Disposal of Solid Waste by Land Ownership & Residence

Land Ownership Status	Residence	Solid Waste Disposal System				
		Total	Managed Dustbin	Unmanaged Dustbin	Bury/inside pit	Burn
Any Member Owning Land	National	100.0	17.6	52.4	29.3	0.8
	Rural	100.0	13.0	55.0	31.2	0.8
	Urban	100.0	43.2	37.6	18.6	0.6
Female Member Owning Land	National	100.0	26.2	43.3	29.9	0.6
	Rural	100.0	16.0	49.0	34.4	0.7
	Urban	100.0	61.3	23.7	14.8	0.2

Figure-41: Solid Waste Disposal by Land Ownership and Residence



8.8: Disposal of Solid Waste by Remittance Receiving and Non-Receiving Households

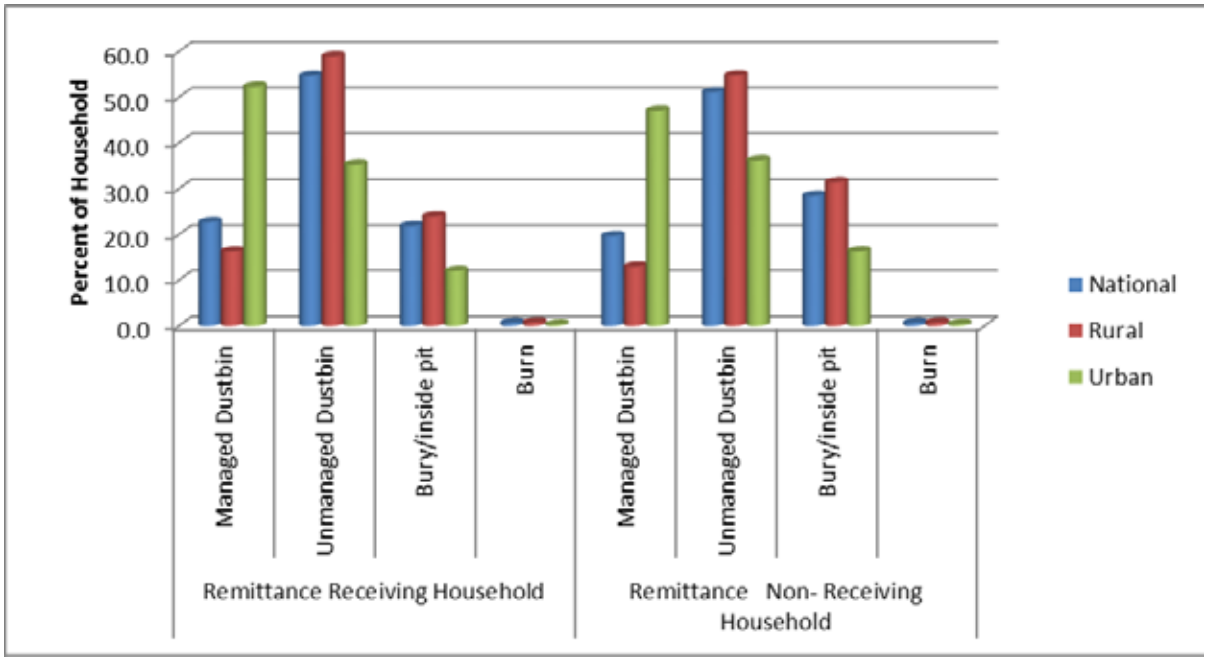
There exists little variation in the use of dustbin system between remittance receiving and non receiving households. Use of dustbin between remittance receiving and non receiving household has been shown in Table-8.8.

At the national level, in case of remittance receiving household 22.7% use managed dustbin , On the other hand, for remittance non receiving household 19.7% use this type of dustbin, 54.7% remittance receiving household use unmanaged dustbin where 51.2% remittance non receiving household use this type of dustbin, 21.8% remittance receiving household use bury/inside pit & 24.5% remittance non receiving household use this type of dustbin,0.7% remittance receiving household use burning system & 0.7% remittance non receiving household also use this type of solid waste management. So it can be said that remittance receiving households are more conscious about environment pollution than the non receiving household. This pattern is also seen both in rural and urban area.

Table-8.8: Distribution of Household by Disposal of Solid Waste by Remittance Receiving and Non-Receiving Households

Remittance Received or Not	Residence	Solid Waste Disposal System				
		Total	Managed Dustbin	Unmanaged Dustbin	Bury/inside pit	Burn
Remittance Receiving Household	National	100.0	22.7	54.7	21.8	0.7
	Rural	100.0	16.3	59.0	24.0	0.8
	Urban	100.0	52.3	35.3	12.0	0.3
Remittance non Receiving Household	National	100.0	19.7	51.2	28.5	0.7
	Rural	100.0	13.0	54.8	31.5	0.8
	Urban	100.0	47.1	36.2	16.3	0.4

Figure-42: Solid Waste Disposal by Access to Remittance



8.9 Disposal of Solid Waste by Slum and Non-slum Households

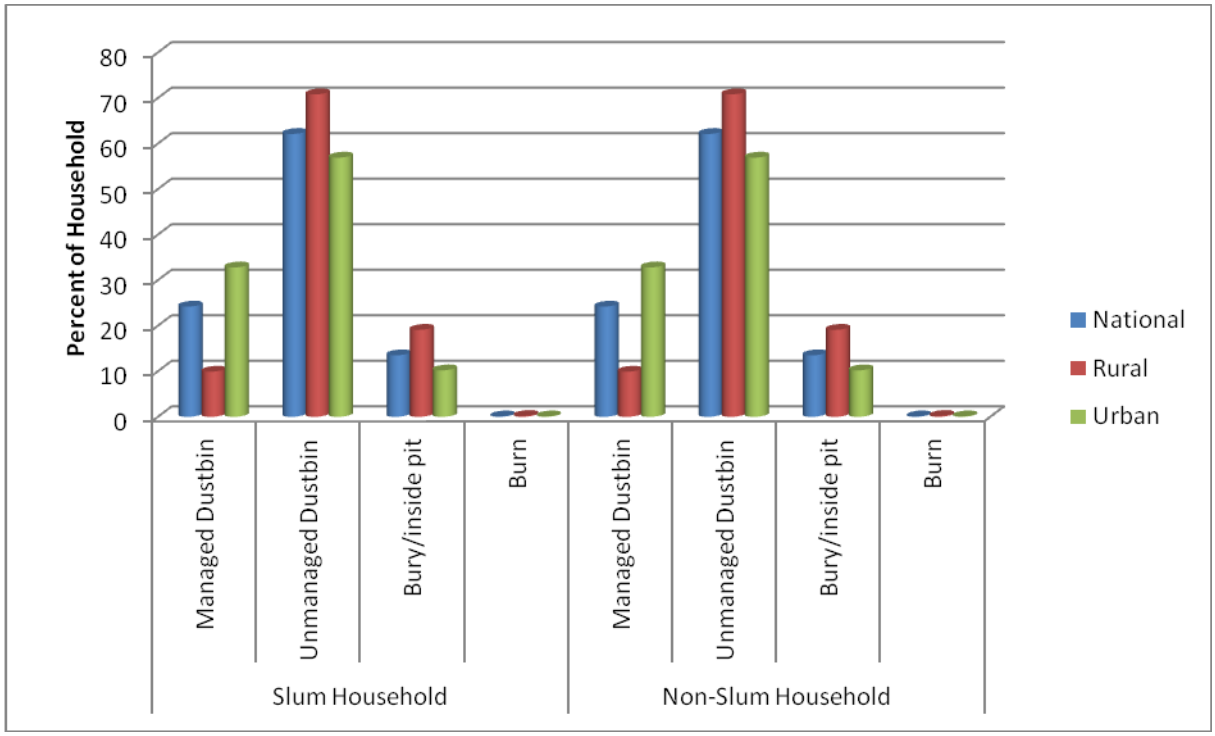
The disposal system of solid waste by slum and non slum households shows that slum households' use managed dustbin at a higher rate than non slum household which may be due to the existence of higher proportion of slum household in the urban area where there is a scope to use managed dustbin. The proportion of households who bury or put the solid waste

inside pit is higher among non slum households compared to slum households which is 13.5% for slum households and 27.9% for non slum households. The slum household also use higher proportion of unmanaged dustbin than non slum household. The percentages are 62.1% for slum and 51.4% for non-slum households respectively. It may be mentioned that urban non slum households use higher percentage of managed dustbin (48.5%) than urban slum households (32.8%).

Table-8.9: Distribution of Household by Disposal of Solid Waste by Slum and Non Slum Households

Slum & Non Slum Households	Residence	Solid Waste Disposal System				
Slum		Total	Managed Dustbin	Unmanaged Dustbin	Bury/inside pit	Burn
	National	100.0	24.2	62.1	13.5	0.1
	Rural	100.0	9.9	70.8	19.1	0.2
	Urban	100.0	32.8	56.9	10.2	0.1
Non Slum	National	100.0	20.0	51.4	27.9	0.7
	Rural	100.0	13.4	55.2	30.6	0.8
	Urban	100.0	48.5	34.9	16.2	0.4

Figure-43: Solid Waste Disposal System for Slum and Non-Slum Household



9. HOUSEHOLD BY SOURCE LIGHTING

This chapter discusses the source of lighting by the households. It may be mentioned that access to modern lighting is a very important socio-economic factor for the households. Because it determines the economic condition of the households up to some extent. Doing any work at night without light is impossible to think. Generally, the affluent segment of population use better lighting system than the poor households. Moreover it is related to the geographic location of household. It may be mentioned that one household may use lighting system from all different sources in that case the main source has been considered in the survey. Source of lighting system by national, rural and divisions & zilas have been discussed. In addition source of lighting system by socio-economic variables like sex of head of household, literacy, level of education of head, land ownership and access to remittance ,slum and non-slum household have been discussed in this chapter.

9.1 Type of Lighting by Residence

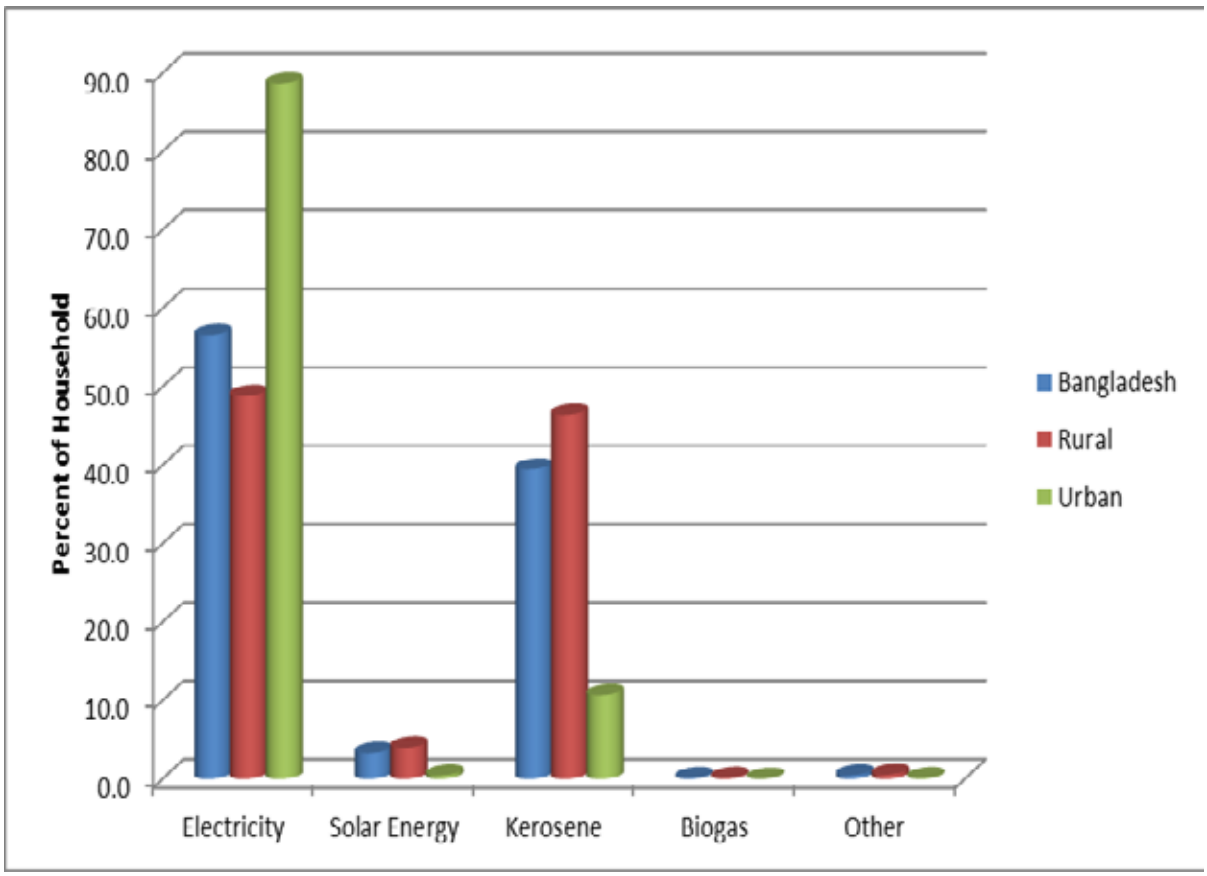
The lighting system of households at the national level by residence has been presented in Table-9.1. It is seen from the table that at the national level 56.6% household use electricity, 39.5% use kerosene, 3.3% use solar energy, 0.1% use biogas and 0.5% use other lighting system.

There exists variation in rural and urban areas. In rural area 48.8% use electricity, 4.0% use solar energy, 46.5% use kerosene, 0.2% use biogas and 0.5% use other lighting system. In urban area as high as 88.7% use electricity, 0.5% use solar energy, 10.7% use kerosene, and 0.1% use other lighting system.

Table-9.1: Distribution of Household by Type of Light by Residence

Residence	Source of Lighting					
	Total	Electricity	Solar Energy	Kerosene	Biogas	Other
Bangladesh	100.0	56.6	3.3	39.5	0.1	0.5
Rural	100.0	48.8	4.0	46.5	0.2	0.5
Urban	100.0	88.7	0.5	10.7	0.0	0.1

Figure-44: Sources of Lighting by Residence



9.2 Type of Lighting Source by Division

Source of lighting system by divisions have been presented in Table-9.2. It is observed from the table that at divisional level most of the divisions except Barisal, Rangpur, Sylhet mostly use electricity for lighting. In Barisal and Rangpur kerosene is used by most of the households. Electricity and kerosene are used by same percentage of household in Sylhet division. The highest 66.4% household use electricity in Dhaka division followed by Chittagong 64.9% and Khulna 56.6%. The lowest percentage of household use electricity was found in Rangpur 34.1% preceded by Barisal 35.2% and Sylhet 46.1%.

There exists urban-rural variation in source of lighting by divisions of the country. Higher rates of electricity in the urban area were observed in all the divisions with higher urban proportion namely Dhaka, Chittagong, Rajshahi and Khulna.

Table-9.2: Distribution of Household by Type of Light by Division

Division	Residence	Source of Lighting					
		Total	Electricity	Solar Energy	Kerosene	Biogas	Other
Barisal	Total	100.0	35.2	8.9	55.6	0.2	0.1
	Rural	100.0	28.4	10.0	61.3	0.2	0.1
	Urban	100.0	80.7	1.5	17.6	0.1	0.0
Chittagong	Total	100.0	64.9	3.8	30.7	0.1	0.5
	Rural	100.0	58.0	4.5	36.8	0.1	0.6
	Urban	100.0	90.4	1.1	8.3	0.1	0.1
Dhaka	Total	100.0	66.4	3.0	29.7	0.1	0.8
	Rural	100.0	56.3	4.1	38.4	0.2	1.1
	Urban	100.0	94.7	0.1	5.1	0.0	0.0
Khulna	Total	100.0	56.6	3.0	40.0	0.1	0.3
	Rural	100.0	51.2	3.5	45.0	0.1	0.2
	Urban	100.0	85.1	0.3	14.1	0.0	0.5
Rajshahi	Total	100.0	54.2	2.0	43.3	0.2	0.3
	Rural	100.0	49.4	2.4	47.8	0.2	0.3
	Urban	100.0	79.9	0.1	19.8	0.0	0.2
Rangpur	Total	100.0	34.1	1.9	63.7	0.2	0.2
	Rural	100.0	29.4	2.1	68.2	0.2	0.2
	Urban	100.0	69.8	0.0	30.1	0.1	0.1
Sylhet	Total	100.0	46.1	4.7	46.1	0.1	0.2
	Rural	100.0	51.5	5.1	51.5	0.1	0.2
	Urban	100.0	9.2	2.0	9.2	0.0	0.0

9.3 Type of Lighting by Zilas

Source of light by zilas have been presented in Table-9.3. The lighting system of households by zilas varies widely. In 26 zilas of Bangladesh more than one half of the households use electricity with the highest for Dhaka(97.6%) is followed by Narayangonj (95.9%) and Munshigonj (93.2%).On the other hand, the lowest 16.2% households of Bandarban zila uses of electricity preceded by Barguna (17.1%) and Kurigram(17.7%). Geographical location, riverine areas and lack of gas resource are responsible for such low use of electricity. Kerosene is mostly used in Kurigram (77.8%) followed by Lalmonirhat (77.6%) and Bandarban (70.2%). It is notable that the use of biogas is very few among the zilas of the country. Use of solar energy is found as an important source of lighting in some zilas. The highest percentage of households using such source was found in Bogra (17.9%) followed by Sariatpur (17.5%) and Patuakhali (15.6%). The zilas where the use of solar energy as source of lighting was more than 10.0% were Bandarban (12.8%), Rangamati (12.1%) and Sunamgonj (11.1%).

Table-9.3: Distribution of Household by Type of Light by Zilas

Zilas	Source of Lighting					
	Total	Electricity	Solar Energy	Kerosene	Biogas	Others
Barguna	100.0	17.1	17.9	64.6	0.5	0.0
Barisal	100.0	49.0	7.3	43.5	0.1	0.1
Bhola	100.0	27.3	5.4	67.0	0.3	0.0
Jhalokati	100.0	48.8	3.4	47.3	0.2	0.4
Patuakhali	100.0	23.2	15.6	61.1	0.1	0.1
Pirojpur	100.0	41.8	4.2	53.6	0.0	0.4
Bandarban	100.0	16.2	12.8	70.2	0.5	0.3
Brahmanbaria	100.0	75.3	3.5	20.8	0.0	0.4
Chanpur	100.0	50.2	6.7	41.5	0.1	1.5
Chittagong	100.0	81.9	2.7	15.0	0.1	0.3
Comilla	100.0	76.7	1.9	21.1	0.1	0.2
Cox's Bazar	100.0	35.8	3.4	59.1	0.4	1.3
Feni	100.0	78.9	0.4	20.5	0.2	0.1
Khagrachhari	100.0	23.4	9.4	67.1	0.1	0.0
Lakshmipur	100.0	49.9	4.2	45.3	0.0	0.5
Noakhali	100.0	50.5	5.0	44.3	0.1	0.0
Rangamati	100.0	26.4	12.1	60.6	0.0	0.9
Dhaka	100.0	97.6	0.2	2.2	0.0	0.0
Faridpur	100.0	46.1	7.9	45.7	0.2	0.2
Gazipur	100.0	87.4	2.3	10.1	0.0	0.2
Gopalganj	100.0	40.6	5.1	54.0	0.1	0.1
Jamalpur	100.0	37.0	4.2	57.0	0.2	1.6
Kishoreganj	100.0	46.6	4.3	44.9	0.1	4.1
Madaripur	100.0	57.8	7.1	34.4	0.2	0.7
Manikganj	100.0	49.6	4.0	44.9	0.7	0.7
Munshiganj	100.0	93.2	1.1	5.2	0.0	0.5
Mymensingh	100.0	42.3	3.2	52.3	0.2	2.0
Narayanganj	100.0	95.9	0.1	3.8	0.0	0.1
Narsingdi	100.0	70.5	3.8	25.6	0.1	0.1
Netrokona	100.0	25.9	5.2	67.8	0.2	0.9
Rajbari	100.0	49.6	1.3	48.8	0.3	0.0
Shariatpur	100.0	36.7	17.5	42.8	0.3	2.6
Sherpur	100.0	46.4	2.3	51.2	0.1	0.0
Tangail	100.0	52.7	4.0	42.5	0.1	0.7

Zilas	Source of Lighting					
	Total	Electricity	Solar Energy	Kerosene	Biogas	Others
Bagarhat	100.0	37.3	5.8	56.8	0.1	0.0
Chuadanga	100.0	58.1	0.1	39.3	0.3	2.1
Jessore	100.0	65.8	0.6	33.6	0.0	0.0
Jhenaidah	100.0	64.1	0.7	34.9	0.2	0.2
Khulna	100.0	58.5	6.7	34.8	0.0	0.0
Kushtia	100.0	66.6	0.8	31.9	0.0	0.6
Magura	100.0	47.4	0.8	51.9	0.0	0.0
Meherpur	100.0	68.7	0.0	31.1	0.2	0.0
Narail	100.0	49.2	1.1	49.3	0.2	0.2
Satkhira	100.0	40.4	8.9	50.6	0.1	0.0
Bogra	100.0	57.9	3.0	40.0	0.1	0.0
Joypurhat	100.0	55.3	0.8	43.6	0.2	0.0
Naogaon	100.0	36.7	2.5	60.2	0.3	0.3
Natore	100.0	58.5	1.5	39.3	0.2	0.5
ChapaiNawabganj	100.0	49.7	0.1	49.8	0.2	0.3
Rajshahi	100.0	71.1	0.6	28.2	0.1	0.1
Pabna	100.0	62.3	1.6	35.0	0.2	0.8
Sirajganj	100.0	43.4	3.6	52.4	0.3	0.4
Dinajpur	100.0	40.7	0.6	58.1	0.1	0.5
Gaibandha	100.0	35.0	3.2	61.5	0.3	0.0
Kurigram	100.0	17.7	4.4	77.8	0.0	0.0
Lalmonirhat	100.0	19.1	3.0	77.6	0.3	0.0
Nilphamari	100.0	36.4	0.8	62.7	0.1	0.0
Panchagarh	100.0	28.8	2.7	68.0	0.2	0.4
Ranpur	100.0	42.7	0.7	56.4	0.2	0.1
Thakurgaon	100.0	39.0	0.6	60.0	0.0	0.4
Habiganj	100.0	46.6	4.7	46.7	0.0	0.0
Moulvibazar	100.0	56.0	2.8	41.1	0.0	0.0
Sunamganj	100.0	26.7	11.1	61.7	0.3	0.3
Sylhet	100.0	62.8	1.1	35.8	0.0	0.3

9.4 Type of Lighting by sex of Head of Household

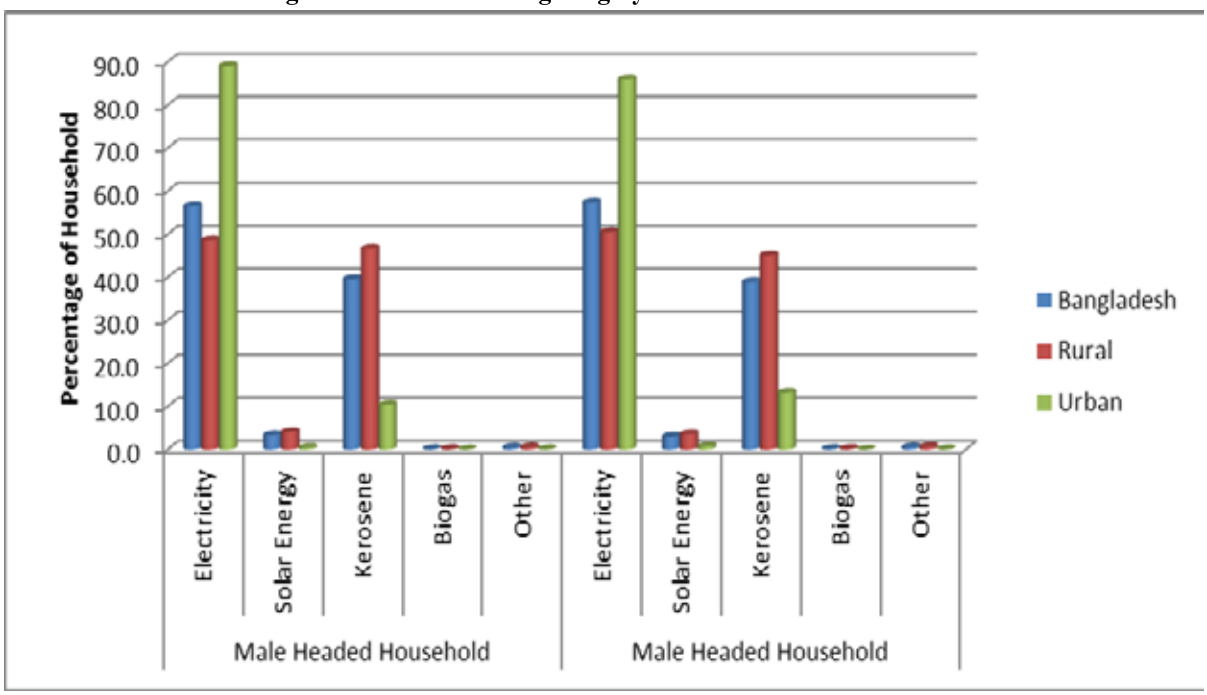
There exists no significant variation in the uses of light by sex of head of household (Table-9.4). For the male headed household 56.5% use electricity as against 57.4% for the female headed households. Solar energy was reported to use by 3.4% male headed household corresponding to 3.0% female headed households. Household using kerosene as source of lighting was used by 39.6% male headed household as against 39.0% female headed household. There exists small variation in the uses of biogas by sex of head of household ; for male headed household 0.1% use biogas as against 0.2% is used by female headed household.

There exist no distinct variations in the use of light by residence between male headed and female headed household.

Table-9.4: Distribution of Household by Type of Lighting & sex of Head of Household

Sex of head	Residence	Source of Lighting					
		Total	Electricity	Solar Energy	Kerosene	Biogas	Other
Male	Bangladesh	100.0	56.5	3.4	39.6	0.1	0.5
	Rural	100.0	48.6	4.1	46.6	0.2	0.5
	Urban	100.0	89.1	0.4	10.4	0.1	0.1
Female	Bangladesh	100.0	57.4	3.0	39.0	0.2	0.5
	Rural	100.0	50.5	3.6	45.1	0.2	0.6
	Urban	100.0	86.1	0.7	13.2	0.0	0.1

Figure-45: Sources of Lighting by Sex of Head of Household



9.5 Type of Lighting by Literacy Level of Head by Residence

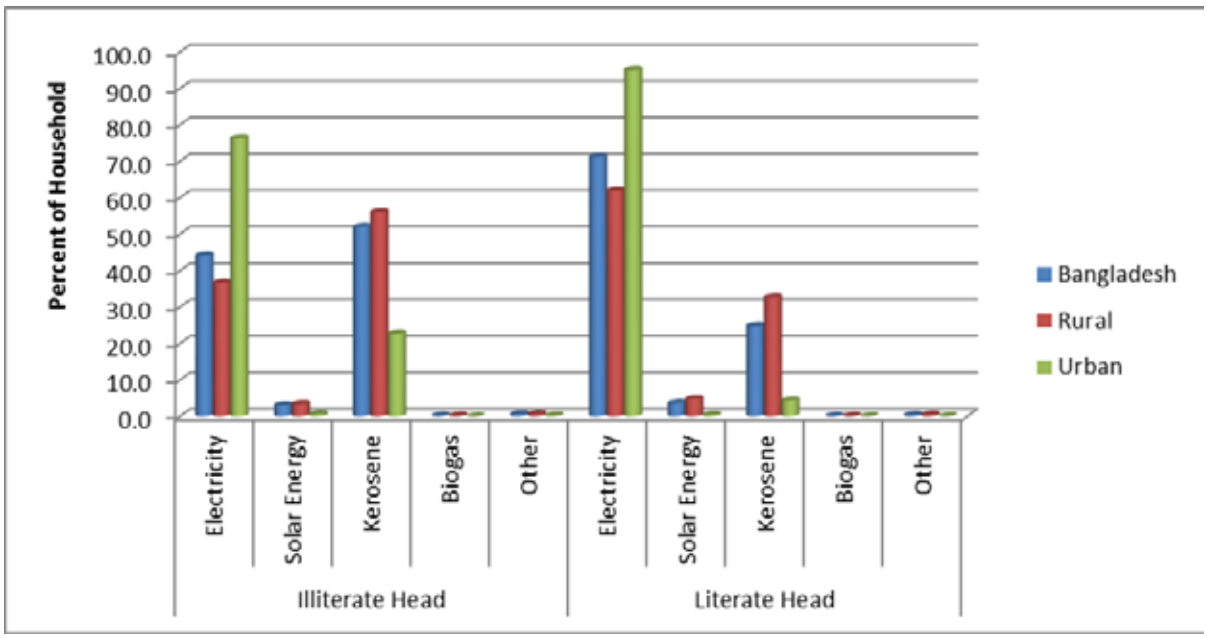
There exists wide variation in the use of lighting between illiterate and literate heads (Table-9.5). At the national level, for illiterate head 44.2% use electricity, 3.1% use solar energy, 52.0% use kerosene, 0.2% use biogas and 0.6% use other source. On the other hand for literate head 71.2% use electricity, 3.6% use solar energy,24.8% use kerosene, 0.1% use biogas and 0.3% use other source. This indicate that literacy level of household heads play an important role in determining the use of electricity and household with illiterate head kerosene use mostly.

There exist similar differences in the use of lighting by literacy status of households both in urban and rural area.

Table-9.5: Distribution of Household by Type of Light by Literacy Level of Head & Residence

Literacy Level of Head	Residence	Source of Lighting					
		Total	Electricity	Solar Energy	Kerosene	Biogas	Other
Illiterate	Bangladesh	100.0	44.2	3.1	52.0	0.2	0.6
	Rural	100.0	36.7	3.4	56.1	0.2	0.6
	Urban	100.0	76.4	0.6	22.8	0.0	0.2
Literate	Bangladesh	100.0	71.2	3.6	24.8	0.1	0.3
	Rural	100.0	61.9	4.9	32.7	0.1	0.5
	Urban	100.0	95.1	0.4	4.4	0.0	0.1

Figure-46: Source of Lighting by Literacy of Head



9.6 Type of Lighting by Literacy Level Education of Head

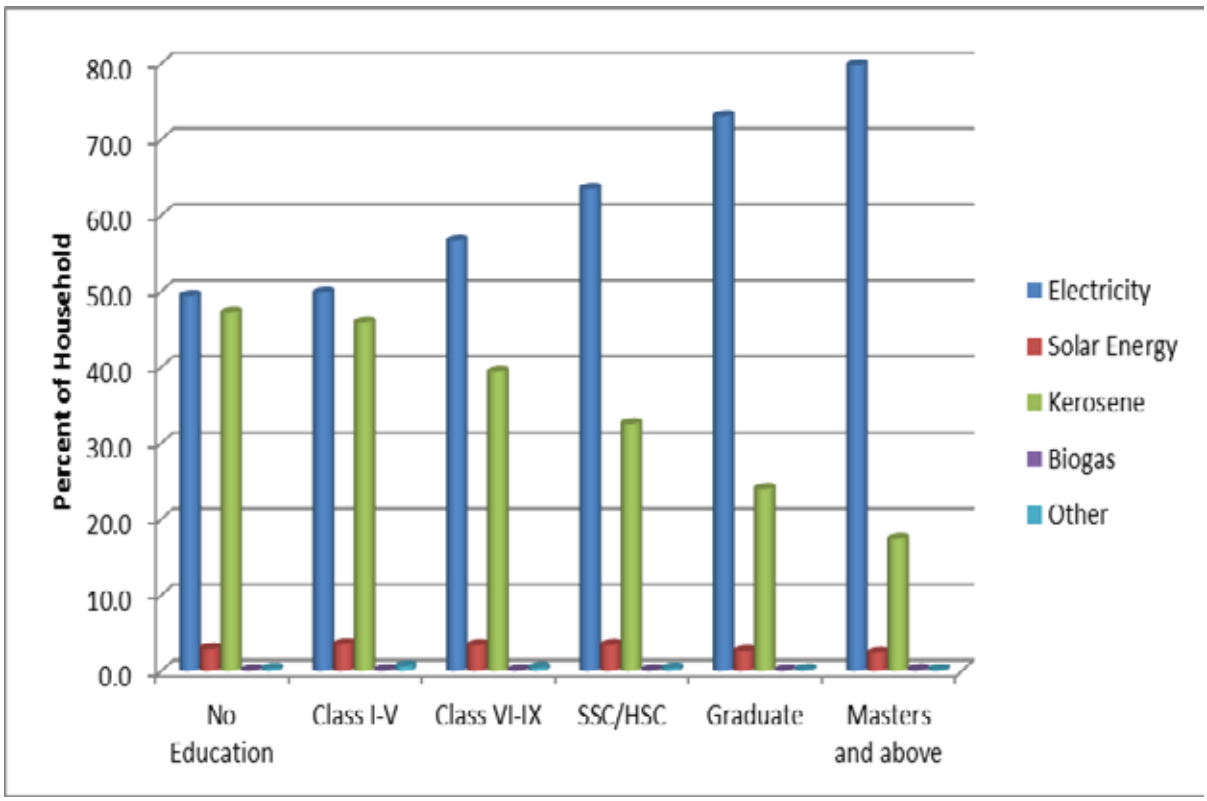
Type of lighting by level of education of head has been presented in Table-9.6. It is notable to mention that, there exists close relation between level of education of head and use of electricity. The use of modern lighting system ,electricity, increases with the increase in the level of education of head. The use of electricity is 49.4% for the households with head having no education, 49.8% with head having education level I-V, 56.7% with education level of head class VI-IX, 63.5% households with education level of head SSC/HSC, 73.1% mentioned about the same type of lighting with head having education level graduation and 79.8% have same type of lighting with level of education of head having masters and above. Thus, we can conclude that improvement of education of head to contribute in the use of modern system of lighting. Interestingly, use of kerosene decreases with the increase in the level of education of head.

It may be noted that improvement in the use of electricity both in urban & rural area increases with the increase in the level of education of head.

Table-9.6: Distribution of Household by Type of Light by Level of Education & Residence

Residence	Level of Education	Source of Lighting					
		Total	Electricity	Solar Energy	Kerosene	Biogas	Other
Bangladesh	No Education	100.0	49.4	3.0	47.2	0.1	0.3
	Class I-V	100.0	49.8	3.5	45.9	0.2	0.6
	Class VI-IX	100.0	56.7	3.4	39.4	0.1	0.5
	SSC/HSC	100.0	63.5	3.4	32.6	0.1	0.4
	Graduate	100.0	73.1	2.6	24.0	0.1	0.2
	Masters and above	100.0	79.8	2.4	17.4	0.2	0.2
Rural	No Education	100.0	42.8	3.4	53.3	0.1	0.4
	Class I-V	100.0	44.6	3.9	50.7	0.2	0.7
	Class VI-IX	100.0	50.9	4.0	44.5	0.1	0.5
	SSC/HSC	100.0	54.2	4.4	40.8	0.2	0.5
	Graduate	100.0	57.2	4.4	38.0	0.1	0.4
	Masters and above	100.0	55.1	5.7	38.6	0.3	0.4
Urban	No Education	100.0	81.5	0.7	17.7	0.0	0.1
	Class I-V	100.0	83.1	0.7	15.8	0.1	0.3
	Class VI-IX	100.0	86.7	0.4	12.8	0.0	0.1
	SSC/HSC	100.0	91.9	0.4	7.7	0.0	0.0
	Graduate	100.0	96.4	0.1	3.5	0.0	0.0
	Masters and above	100.0	97.6	0.1	2.2	0.2	0.1

Figure-47: Source of Lighting by Level of Education



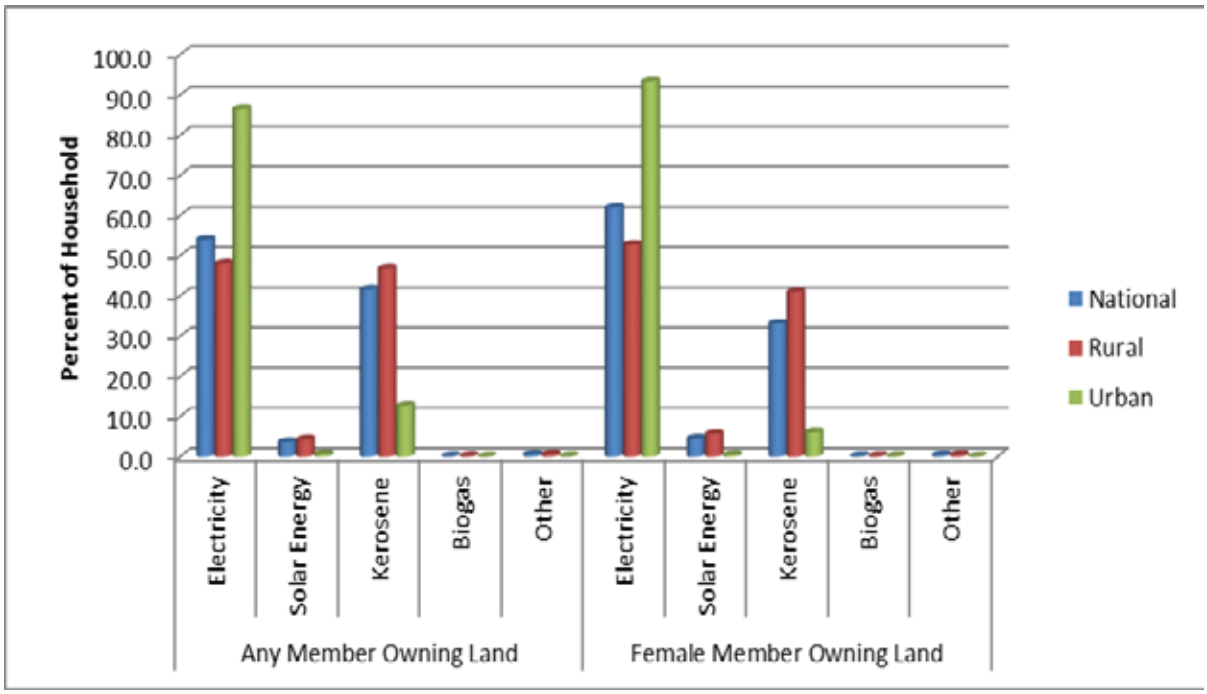
9.7 Type of Lighting by Land Ownership of Household

Type of lighting in the household by any member owning land and female member owning land has been presented in Table-9.7. It is observed from the table that there are close relation in the use of lighting facilities between any member owning land and female member owning land. The use of electricity is higher for female member owning land than any member owning land in all residences. For any member owning land the use of electricity is 54.0 %. On the other hand, it is 62.0% for female member owning land. The use of solar energy 3.7% for households with any member own land compared to 4.5% household where female member owning land. The use of kerosene and other source of lighting is higher for any member owning land than that of female member owning land. On the other hand, the use of biogas is higher for household where female member owned land. In rural area any member owning land use kerosene, biogas and other source most than households where female member own land. On the contrary, in urban area female member owning land use electricity at a higher rate than any member owning land in the same area.

Table-9.7: Distribution of Household by Type of Light by Land Ownership & Residence

Land Ownership Status	Residence	Source of Lighting					
		Total	Electricity	Solar Energy	Kerosene	Biogas	Other
Any Member Owning Land	National	100.0	54.0	3.7	41.7	0.1	0.5
	Rural	100.0	48.1	4.3	46.9	0.2	0.6
	Urban	100.0	86.6	0.6	12.6	0.0	0.1
Female Member Owning Land	National	100.0	62.0	4.5	33.1	0.1	0.4
	Rural	100.0	52.8	5.7	41.0	0.1	0.4
	Urban	100.0	93.3	0.4	6.1	0.1	0.0

Figure-48: Sources of Lighting by Land Ownership



9.8 Use of Lighting Facility by Access to Remittance

There exists variation in the use of lighting system between remittance receiving and non receiving households. Type of toilet facilities between remittance receiving and non receiving household has been shown in Table-9.8.

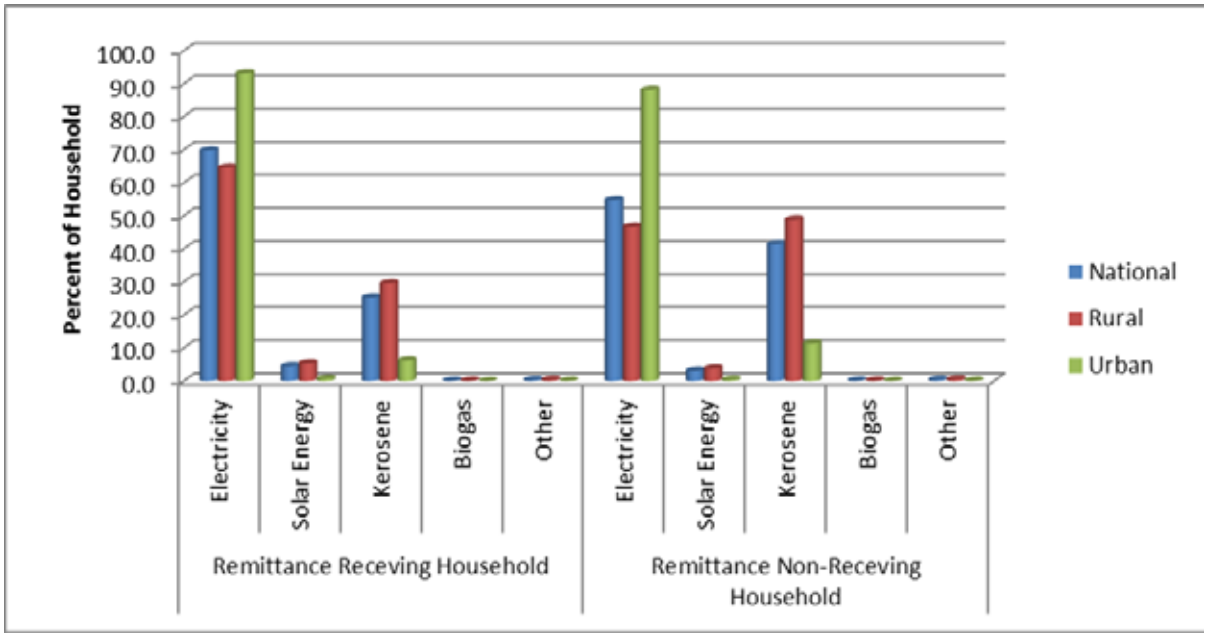
In case of remittance receiving household 69.7% use electricity, 4.5% use solar energy, 25.3% use kerosene, 0.1% use biogas and 0.4% use other source. On the other hand, for remittance non receiving household 54.8% use electricity, 3.2% use solar energy, 41.5% use kerosene, 0.1% use biogas and 0.5% use other source. So it can be said that remittance receiving households are using modern lighting system than that of non receiving household.

This pattern is also seen both in rural and urban area. This may be the impact of remittance for the remittance receiving households.

Table-9.8: Distribution of Household by type of Light by Remittance Receiving and Non-Receiving Households

Remittance Received or Not	Residence	Source of Lighting					
		Total	Electricity	Solar Energy	Kerosene	Biogas	Other
Remittance Receiving Household	National	100.0	69.7	4.5	25.3	0.1	0.4
	Rural	100.0	64.6	5.3	29.5	0.1	0.4
	Urban	100.0	93.1	0.7	6.2	0.0	0.1
Remittance non Receiving Household	National	100.0	54.8	3.2	41.5	0.1	0.5
	Rural	100.0	46.6	3.8	48.9	0.2	0.6
	Urban	100.0	88.2	0.4	11.3	0.0	0.1

Figure-49: Source of Lighting by Access by Remittance



9.9 Source of Light for the Slum and Non slum Household

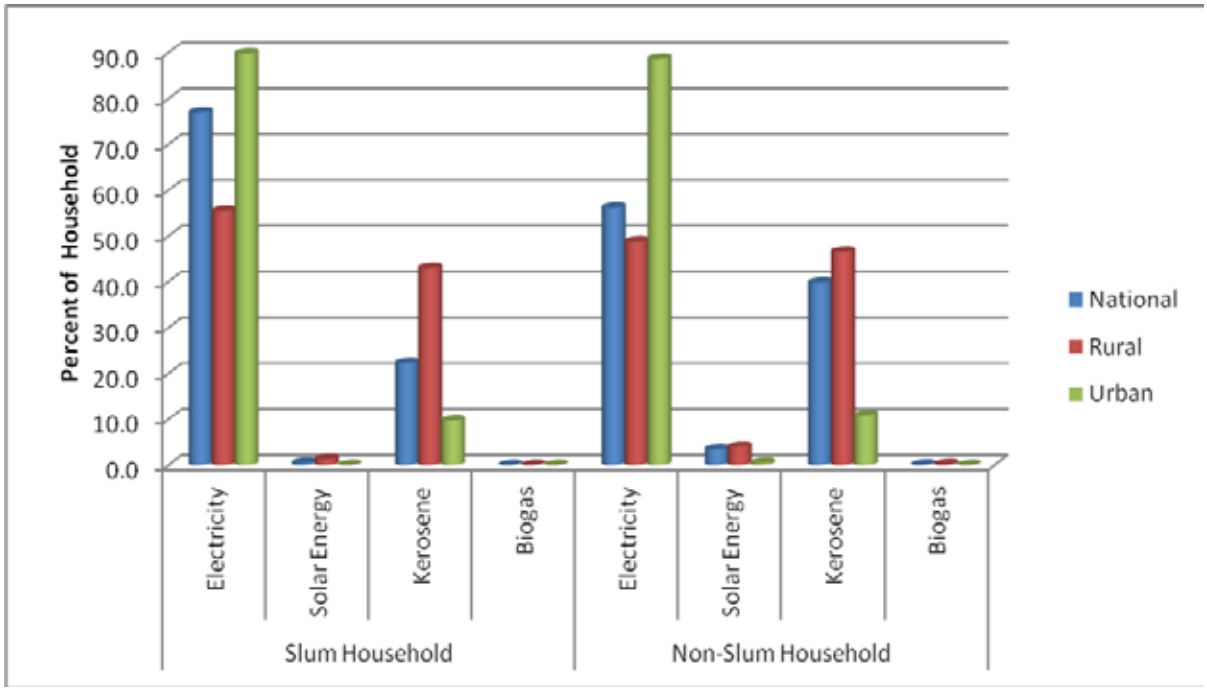
It is notable that slum households have higher access to electricity than non-slum households. This is due to the existence of slum in the urban area particularly in the big cities. The corresponding percentage are 76.9% and 56.2% respectively. The use kerosine is higher for non-slum households than slum households. The corresponding percentage are 39.8% for

non-slum households and 22.2% for slum households. Use of solar energy is also higher for non-slum households as these households are mostly in the rural area where solar energy is becoming popular day by day. The percentage of non-slum household who use solar energy is 3.4% and against only 0.5% for the slum households. Even in the urban area slum households have more access to electricity than non-slum households which is due to existence of slum households in big cities where the availability of electricity is higher than small municipalities.

Table-9.9 : Distribution of Household by Type of Light for Slum and Non Slum Households

Slum & Non Slum Households	Residence	Light				
Slum		Total	Electricity	Solar Energy	Kerosene	Biogas
	National	100.0	76.9	0.5	22.2	0.0
	Rural	100.0	55.5	1.3	43.0	0.0
	Urban	100.0	89.8	0.0	9.7	0.0
Non Slum	National	100.0	56.2	3.4	39.8	0.1
	Rural	100.0	48.8	4.0	46.5	0.2
	Urban	100.0	88.6	0.5	10.8	0.0

Figure-50: Sources of Lighting Slum and Non-Slum Household



10. HOUSEHOLDS BY USE OF COOKING FUEL

Household by use of cooking fuel has been presented in this chapter. Cooking fuel is a good indicator on the affluence of the households. Generally, the poor households use solid fuels like straw/dried cow dung, wood etc. On the other hand, well-to-do households use modern cooking fuel like gas/LPG, electricity which is environmental facility. The use of solid fuel creates a lot of smoke which is detrimental to the environment. In the present chapter use of cooking fuel by the household disaggregated by residence, division, zilas, sex of head of household, literacy of head of household, level of education of head of household, land ownership of the households and access to remittance have been discussed.

10.1 Cooking Fuel by Residence

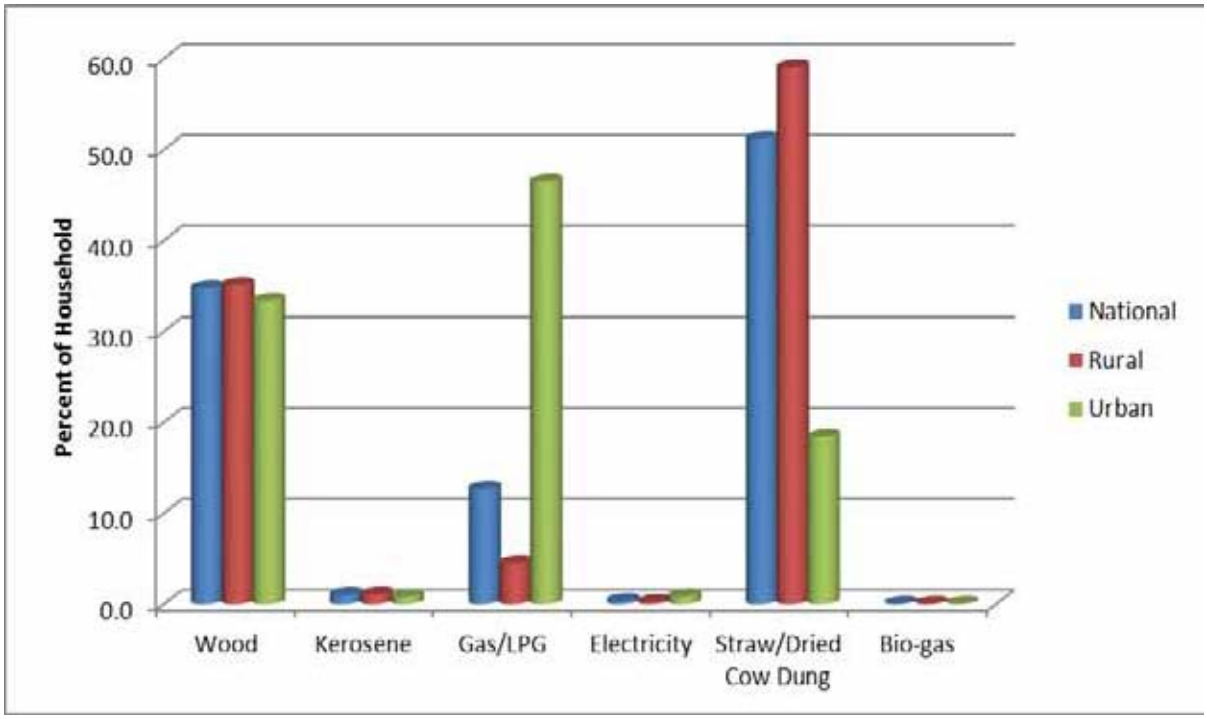
Cooking fuel by residence has been presented in Table-10.1. It is revealed from the table that at the national level the highest 51.16% use straw/dried cow dung as cooking fuel followed by wood (34.8%), gas/LPG (12.7%), Kerosene (1.0%) and electricity (0.4%).

There exists distinct urban-rural variation by the use of cooking fuel. In the rural area the highest 59.1% use solid fuel like straw/dried cow dung followed by wood (35.1%) and gas/LPG (4.5%). On the other hand , in the urban area, the highest 46.5% use gas/LPG as the cooking fuel followed by wood (33.4%) and straw/dried cow dung (18.4%). It may be mentioned that bio-gas is used by a small percentage of household as cooking fuel (0.1%).

Table-10.1: Distribution of Household by Cooking Fuel by Residence (National)

Residence	Total	Fuel for					
		Wood	Kerosene	Gas/LPG	Electricity	Straw/Dried Cow Dung	Bio-gas
National	100.0	34.8	1.0	12.7	0.4	51.2	0.1
Rural	100.0	35.1	1.0	4.5	0.3	59.1	0.1
Urban	100.0	33.4	0.8	46.5	0.9	18.4	0.1

Figure-51: Source of Cooking Fuel by Residence



10.2 Use of Cooking Fuel by Division

Use of cooking fuel by division has been presented in Table-10.2. Among the divisions of the country, the highest 75.6% households of Barisal division used wood as cooking fuel followed by Chittagong (51.0%) and Sylhet (50.4%). On the other hand, the highest 84.7% households of Rajshahi division used straw/dried cow dung as cooking fuel followed by Rangpur Division (71.1%) and Khulna division (55.7%). Among the divisions of the country use of gas/LPG was the highest in Dhaka division (26.8%) followed by Chittagong division (14.0%) and Sylhet division (8.5%) Use of kerosene as fuel was the highest in Barisal (1.6%) followed by Rangpur (1.4%) and Chittagong (1.1%).

Table-10.2: Distribution of Households by Cooking Fuel by Division and Residence

Division	Residence	Fuel						
		Total	Wood	Kerosene	Gas/LPG	Electricity	Straw/Dried Cow Dung	Bio-gas
Barisal	Total	100.0	75.6	1.6	1.5	0.1	21.2	0.0
	Rural	100.0	74.4	1.7	0.2	0.1	23.5	0.1
	Urban	100.0	83.2	0.4	10.5	0.2	5.8	0.0
Chittagong	Total	100.0	51.0	1.1	14.0	0.4	33.4	0.1
	Rural	100.0	55.8	1.1	3.5	0.3	39.2	0.1
	Urban	100.0	33.0	1.2	52.9	0.7	12.1	0.1

Division	Residence	Fuel						
		Total	Wood	Kerosene	Gas/LPG	Electricity	Straw/Dried Cow Dung	Bio-gas
Dhaka	Total	100.0	27.0	0.8	26.8	0.6	44.7	0.1
	Rural	100.0	30.2	1.0	12.0	0.4	56.4	0.1
	Urban	100.0	18.1	0.4	68.7	1.1	11.7	0.0
Khulna	Total	100.0	41.5	0.8	1.7	0.2	55.7	0.1
	Rural	100.0	36.5	0.6	0.4	0.1	62.4	0.1
	Urban	100.0	67.8	1.7	8.9	0.7	20.9	0.1
Rajshahi	Total	100.0	11.3	1.0	2.7	0.3	84.7	0.1
	Rural	100.0	7.3	0.9	0.2	0.2	91.4	0.1
	Urban	100.0	32.7	1.4	15.8	0.6	49.5	0.1
Rangpur	Total	100.0	26.4	1.4	0.8	0.3	71.1	0.0
	Rural	100.0	22.4	1.4	0.2	0.2	75.8	0.0
	Urban	100.0	57.0	1.5	5.4	1.0	35.0	0.1
Sylhet	Total	100.0	50.4	0.9	8.5	0.3	39.9	0.1
	Rural	100.0	52.6	0.9	2.0	0.2	44.1	0.1
	Urban	100.0	34.7	0.2	54.0	0.9	10.3	0.0

10.3 Use of cooking fuel by Zilas

Use of cooking fuel by zilas show wide variation in the use of cooking fuel among the zilas of the country. It is observed from the findings of the sample census that out of 64 zilas of the country more than one half of the households in the 19 zilas used wood as cooking fuel. Among these zilas the highest 97.0.% households of Bandarban used wood as cooking fuel followed by Khagrachari (94.2%) and Rangamati (91.6%). On the other hand, more than one half of the households in 38 zilas used straw/dried cow dung as the cooking fuel. Among these zilas, the highest(92.7%) households of Naogaon zila used straw/dried cow dung as cooking fuel followed by Faridpur (89.0%) and Thakurgaon (88.4%). Use of gas/LPG was the highest in Dhaka zila (75.4%) followed by Narayangonj (45.8%) and Gazipur zila (38.4%). It may be mentioned that use of cooking fuel depends on the availability of the type of fuel in the respective zilas. Wood is widely used in the hill zila and the zilas where these exists large number of forest and trees. Gas is widely used in Dhaka and adjacent zilas and the rest of the zilas mainly depends on the straw/dried cow dung for the cooking fuel.

Table-10.3: Distribution of Households by Cooking Fuel & Zilas

Zilas	Fuel Used for Cooking						
	Total	Wood	Kerosene	Gas/LPG	Electricity	Straw/Dried Cow Dung	Bio-gas
Barguna	100.0	67.5	1.7	0.8	0.0	30.0	0.0
Barisal	100.0	72.5	0.9	3.7	0.1	22.8	0.0
Bhola	100.0	78.9	3.2	1.0	0.2	16.6	0.2
Jhalokati	100.0	83.5	1.1	1.1	0.0	14.3	0.0
Patuakhali	100.0	68.0	1.5	0.3	0.0	30.2	0.0
Pirojpur	100.0	88.9	0.8	0.7	0.1	9.6	0.0
Bandarban	100.0	97.0	2.0	1.0	0.0	0.1	0.0
Brahmanbaria	100.0	22.5	0.7	9.3	0.3	67.2	0.0
Chanpur	100.0	47.7	1.6	4.3	0.3	46.1	0.0
Chittagong	100.0	56.0	0.5	33.1	0.5	9.8	0.1
Comilla	100.0	32.2	1.5	11.2	0.3	54.7	0.1
Cox's Bazar	100.0	76.5	1.7	3.5	0.6	17.6	0.0
Feni	100.0	42.8	0.3	13.5	0.5	42.8	0.0
Khagrachhari	100.0	94.2	1.1	0.7	0.0	3.9	0.0
Lakshmipur	100.0	70.4	1.1	2.8	0.0	25.6	0.0
Noakhali	100.0	49.5	1.9	4.7	0.3	43.5	0.0
Rangamati	100.0	91.7	1.3	2.6	0.7	3.8	0.0
Dhaka	100.0	11.9	0.2	75.4	1.0	11.5	0.1
Faridpur	100.0	8.1	1.0	1.5	0.4	89.0	0.0
Gazipur	100.0	35.9	0.5	38.4	0.4	24.9	0.0
Gopalganj	100.0	34.7	0.7	1.5	0.3	62.7	0.0
Jamalpur	100.0	23.5	1.2	1.0	0.4	73.8	0.1
Kishoreganj	100.0	27.2	1.0	4.9	0.2	66.6	0.1
Madaripur	100.0	39.7	0.6	1.2	0.2	58.4	0.0
Manikganj	100.0	6.0	0.6	2.1	0.3	91.1	0.0
Munshiganj	100.0	50.3	0.1	13.7	0.1	35.9	0.0
Mymensingh	100.0	54.5	1.6	5.0	0.6	38.3	0.0
Narayanganj	100.0	27.9	0.5	46.8	1.2	23.5	0.1
Narsingdi	100.0	29.2	0.8	15.5	0.9	53.7	0.0
Netrokona	100.0	41.0	2.4	2.1	0.2	54.3	0.0
Rajbari	100.0	11.0	0.9	0.7	0.2	87.1	0.1
Shariatpur	100.0	23.4	1.3	0.3	0.3	74.6	0.0
Sherpur	100.0	44.6	0.7	0.1	0.1	54.3	0.2
Tangail	100.0	22.0	1.4	1.4	0.4	74.8	0.0

Zilas	Fuel Used for Cooking						
	Total	Wood	Kerosene	Gas/LPG	Electricity	Straw/Dried Cow Dung	Bio-gas
Bagarhat	100.0	80.1	1.2	0.4	0.1	18.2	0.0
Chuadanga	100.0	21.0	0.5	1.0	0.5	76.9	0.1
Jessore	100.0	52.4	1.3	2.6	0.2	43.4	0.1
Jhenaidah	100.0	18.9	0.4	1.2	0.3	79.1	0.1
Khulna	100.0	65.7	0.9	4.8	0.3	28.2	0.1
Kushtia	100.0	20.7	0.6	1.0	0.2	77.3	0.1
Magura	100.0	16.3	0.6	1.5	0.2	81.4	0.0
Meherpur	100.0	12.0	0.3	0.9	0.1	86.6	0.1
Narail	100.0	25.2	1.1	0.8	0.1	72.7	0.1
Satkhira	100.0	49.9	0.5	0.3	0.0	49.2	0.0
Bogra	100.0	14.5	0.5	3.9	0.0	81.1	0.0
Joypurhat	100.0	8.4	0.5	1.8	0.5	88.2	0.5
Naogaon	100.0	5.5	1.3	0.3	0.2	92.7	0.0
Natore	100.0	13.0	0.9	0.9	0.5	84.7	0.0
Chapai – Nawabganj	100.0	13.1	0.9	0.6	0.2	85.2	0.0
Rajshahi	100.0	11.5	1.4	4.2	0.4	82.4	0.2
Pabna	100.0	11.9	0.4	4.1	0.3	83.3	0.0
Sirajganj	100.0	11.4	1.4	3.8	0.3	83.5	0.0
Dinajpur	100.0	14.5	1.3	0.6	0.3	83.2	0.0
Gaibandha	100.0	17.1	1.1	1.2	0.5	80.1	0.0
Kurigram	100.0	42.5	1.5	0.8	0.1	55.2	0.0
Lalmonirhat	100.0	45.0	2.6	0.3	0.2	52.0	0.0
Nilphamari	100.0	31.4	1.0	0.9	0.3	66.3	0.0
Panchagarh	100.0	14.4	1.5	0.3	0.4	83.3	0.0
Ranpur	100.0	36.0	1.1	1.0	0.4	61.4	0.0
Thakurgaon	100.0	9.1	1.6	0.6	0.3	88.4	0.1
Habiganj	100.0	33.3	1.2	3.2	0.3	62.0	0.0
Moulvibazar	100.0	82.4	0.6	5.9	0.1	10.9	0.2
Sunamganj	100.0	20.3	0.8	1.6	0.3	76.9	0.0
Sylhet	100.0	64.8	0.8	18.7	0.5	15.0	0.2

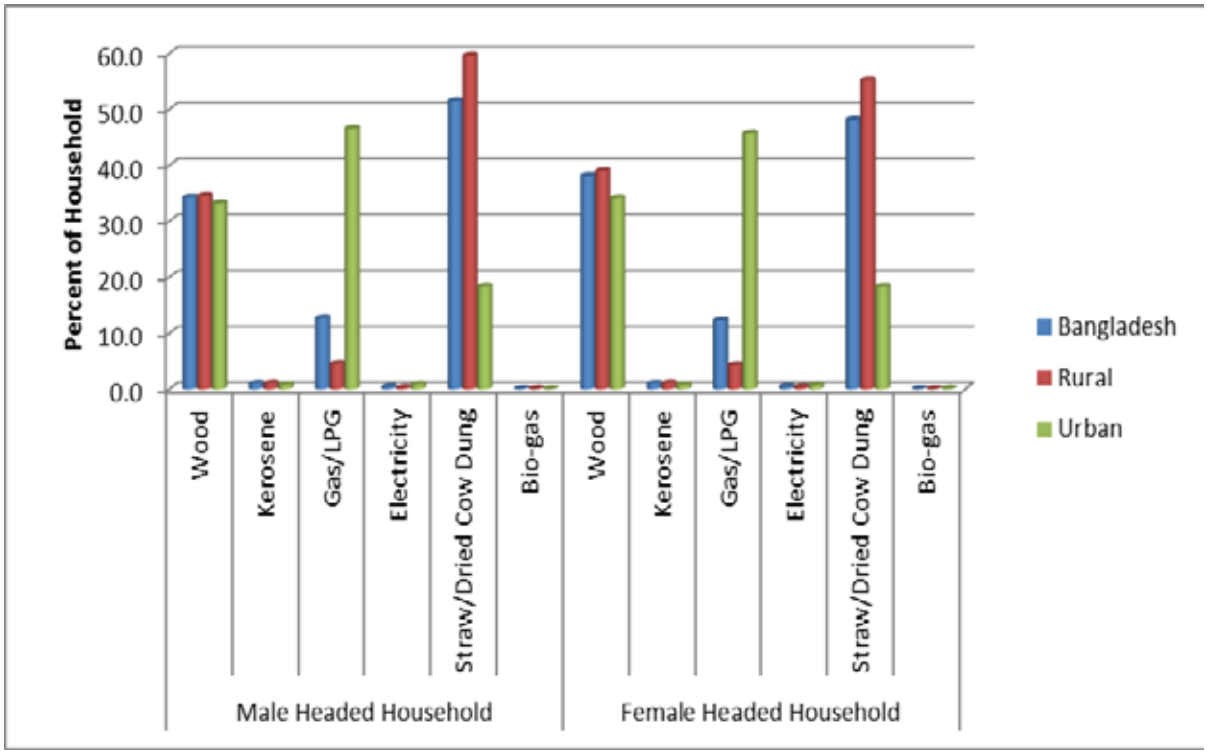
10.4: Use of Cooking fuel by Sex of Head of Household

Use of cooking fuel by sex of head of household in the Table-10.4 shows that there exists some difference in the use of coking fuel by sex of head of household. For the male headed household 34.3% use wood , 51.6% use straw/dried cow dung, 12.7% use gas/LPG,1.0% use kerosene , 0.4% use electricity and 0.1% use bio-gas as cooking fuel. On the other hand, 48.1% use straw/dried cow dung, 12.3% use gas/LPG, 1.01% use kerosene, o.4% use electricity and 0.1% use bio-gas as cooking fuel. It is notable that use of wood as a cooking fuel is higher for female headed household compared to male headed household.

Table-10.4: Distribution of Households by Cooking Fuel by Sex of Head & Residence

Sex of head	Residence	Fuel Used for Cooking						
		Total	Wood	Kerosene	Gas/LPG	Electricity	Straw/Dried Cow Dung	Bio-gas
Male	Bangladesh	100.0	34.3	1.0	12.7	0.4	51.6	0.1
	Rural	100.0	34.6	1.0	4.5	0.2	59.6	0.1
	Urban	100.0	33.2	0.8	46.6	0.9	18.4	0.1
Female	Bangladesh	100.0	38.1	1.0	12.3	0.4	48.1	0.1
	Rural	100.0	39.0	1.1	4.3	0.4	55.2	0.0
	Urban	100.0	34.2	0.8	45.8	0.7	18.4	0.1

Figure-52:Source of Cooking Fuel by Sex of Head of Household



10.5 Use of cooking fuel by Literacy Level of Head of Household

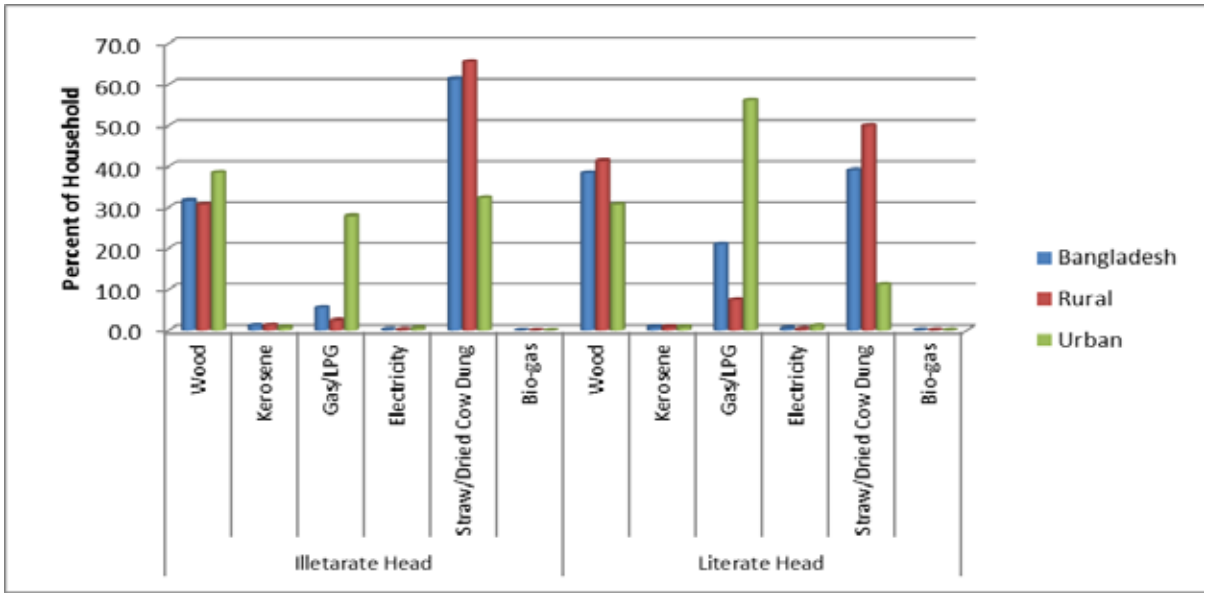
Use of cooking fuel by literacy of head of household has been presented in Table-10.5. It is observed from the table that there exists distinct difference in the use of cooking fuel by the literacy status of the household head.

For the households with illiterate head 31.7% use wood, 61.4% use straw/dried cow dung, 5.5% use gas/LPG, 1.1% use kerosene and 0.3% use electricity. On the other hand, for the households with literate head, 38.4% use wood, 39.1% use straw/dried cow dung, 21.0% use gas/LPG, 0.8% use kerosene, 0.5% use electricity and 0.1% use bio-gas as cooking fuel. It is observed that use of modern fuel gas/LPG is about 4 times higher among the households with literate head to households with illiterate head. Use of traditional fuel like straw/dried cow dung was observed much lower for households with literate head as compared to illiterate head. This difference is also observed both in urban and rural area.

Table-10.5: Distribution of Households by Cooking Fuel by Literacy Level of Head & Residence

Literacy Level of Head	Residence	Fuel Used for Cooking						
		Total	Wood	Kerosene	Gas/LPG	Electricity	Straw/Dried Cow Dung	Bio-gas
Illiterate	Bangladesh	100.0	31.7	1.1	5.5	0.3	61.4	0.0
	Rural	100.0	30.7	1.2	2.4	0.2	65.5	0.0
	Urban	100.0	38.5	0.8	27.9	0.5	32.3	0.0
Literate	Bangladesh	100.0	38.4	0.8	21.0	0.5	39.1	0.1
	Rural	100.0	41.4	0.8	7.5	0.3	49.9	0.1
	Urban	100.0	30.7	0.9	56.2	1.1	11.2	0.1

Figure-53: Use of Cooking Fuel by Literacy Level of Head



10.6 Use of cooking fuel by Level of Education of Head of Household

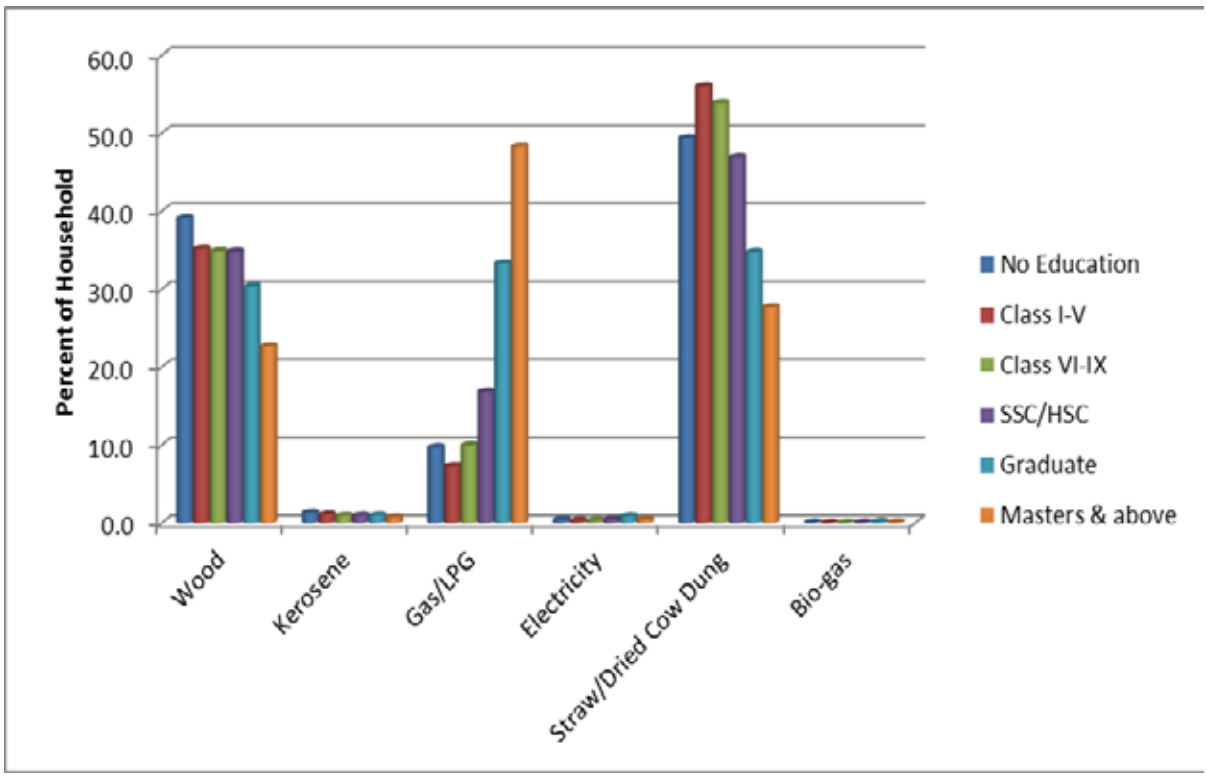
Use of cooking fuel by level of education of head of household has been presented in Table-10.6. It is seen that there exists some relation with regard to use of different cooking fuel and level of education of household head. The use of modern cooking fuel such as gas/LPG increases with the increase of the level of education of head of household. On the other hand, use of straw/dried cow dung decreases with the increase in level of education of the head of household.

The use of wood as cooking fuel also decreases with the increase of the level of education of head. The use of wood was 39.1% for the households with head with no education while it was 22.7% for those households with head masters and above. Use of gas/LPG was found 9.7% for households with no education which increased to 48.3% for the head with education level masters and above. The use of straw/dried cow dung was 49.4% for the households with no education whereas such percentage for those having masters and above education level was 27.7%.

Table-10.6: Distribution of Households by Cooking Fuel by Level of Education & Residence

Residence	Level of Education	Fuel Used for Cooking						
		Total	Wood	Kerosene	Gas/LPG	Electricity	Straw/Dried Cow Dung	Bio-gas
Bangladesh	No Education	100.0	39.1	1.3	9.7	0.4	49.4	0.1
	Class I-V	100.0	35.2	1.1	7.4	0.3	56.0	0.0
	Class VI-IX	100.0	34.9	0.9	10.0	0.3	53.9	0.0
	SSC/HSC	100.0	34.8	0.9	16.8	0.5	46.9	0.1
	Graduate	100.0	30.3	1.0	33.3	0.9	34.8	0.2
	Masters & above	100.0	22.7	0.7	48.3	0.4	27.7	0.1
Rural	No Education	100.0	39.5	1.4	3.7	0.3	54.9	0.1
	Class I-V	100.0	34.8	1.1	3.3	0.2	60.5	0.0
	Class VI-IX	100.0	34.3	0.9	4.4	0.2	60.1	0.0
	SSC/HSC	100.0	35.3	0.9	5.7	0.3	57.8	0.1
	Graduate	100.0	34.9	1.0	9.6	0.4	53.7	0.3
	Masters & above	100.0	31.9	0.8	8.1	0.5	58.5	0.2
Urban	No Education	100.0	37.1	0.7	38.8	0.8	22.6	0.1
	Class I-V	100.0	37.9	0.7	33.1	0.7	27.6	0.0
	Class VI-IX	100.0	37.6	0.9	38.6	0.7	22.1	0.1
	SSC/HSC	100.0	35.5	1.0	50.5	1.1	13.9	0.1
	Graduate	100.0	22.7	0.8	68.0	1.5	6.9	0.1
	Masters & above	100.0	16.1	0.7	77.2	0.4	5.7	0.0

Figure-54: Use of Cooking Fuel by Level of Education of Head



10.7 Use of cooking fuel by Land ownership

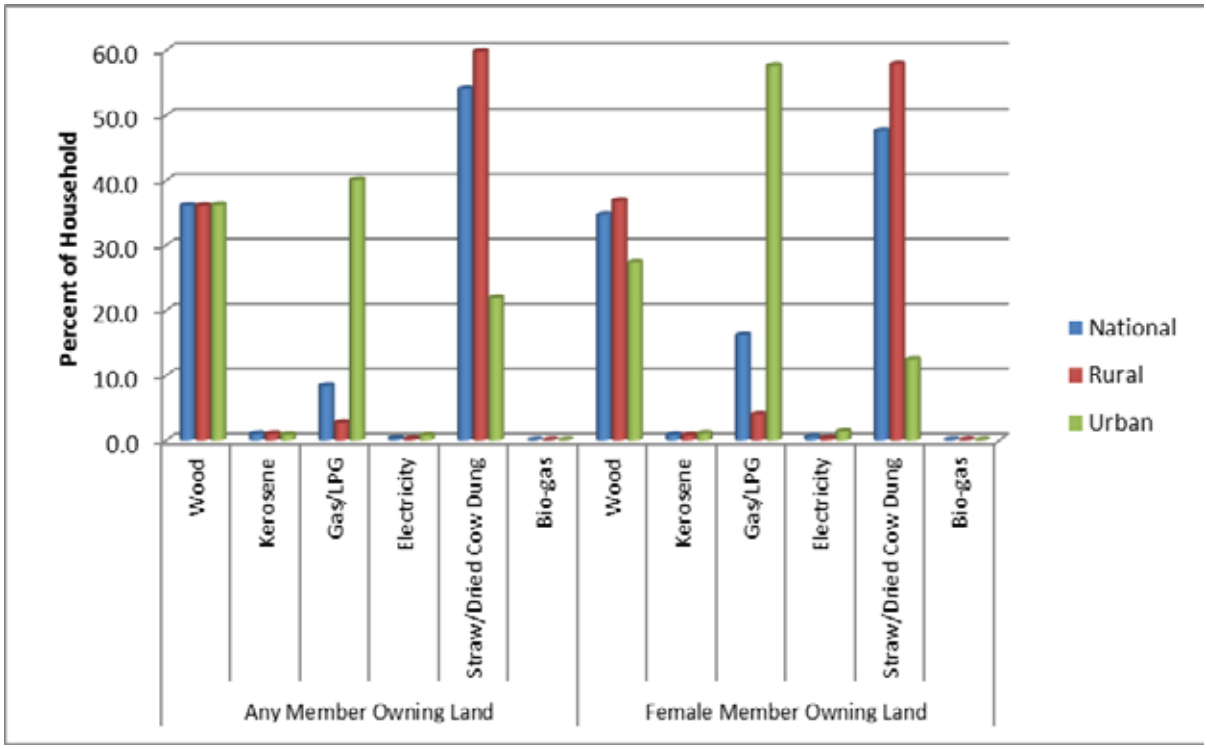
The use of cooking fuel by households with any member owning land verses female member owning land has been presented in Table-10.7. It is mentionable that there exists remarkable difference between the households where any member having land compared to female member owning land.

It is observed from the table that for the households any member owning land the highest 54.0% used the traditional fuel like straw/dried cow dung, followed by wood (36.1%) and gas/LPG (8.4%). On the other hand, for households where female member reported owning land, through the pattern is similar, yet there exists differences in percentage in the type of fuel used. The percentage of such household with the use of different types of fuel were that 37.4% used wood, 47.6% used straw/dried cow dung and 16.2% used gas/LPG. The use of other types of fuel such as kerosene, electricity, bio-gas was around 1.0%. Similar differences were observed in urban and rural area for the households with any member owning land & female member owning land.

Table-10.7: Distribution of Households by Cooking Fuel by Land Ownership & Residence

Land Ownership Status	Residence	Fuel used for Cooking						
		Total	Wood	Kerosene	Gas/LPG	Electricity	Straw/Dried Cow Dung	Bio-gas
Any Member Owning Land	National	100.0	36.1	1.0	8.4	0.3	54.0	0.1
	Rural	100.0	36.1	1.0	2.7	0.3	59.8	0.1
	Urban	100.0	36.2	0.9	40.1	0.8	21.9	0.1
Female Member Owning Land	National	100.0	34.7	0.9	16.2	0.6	47.6	0.1
	Rural	100.0	36.8	0.8	4.0	0.4	57.9	0.1
	Urban	100.0	27.4	1.1	57.7	1.4	12.5	0.1

Figure-55: Use of Cooking Fuel by Land Ownership



10.8 Distribution of Households by Cooking Fuel by Remittance Receiving and Non-Receiving Households

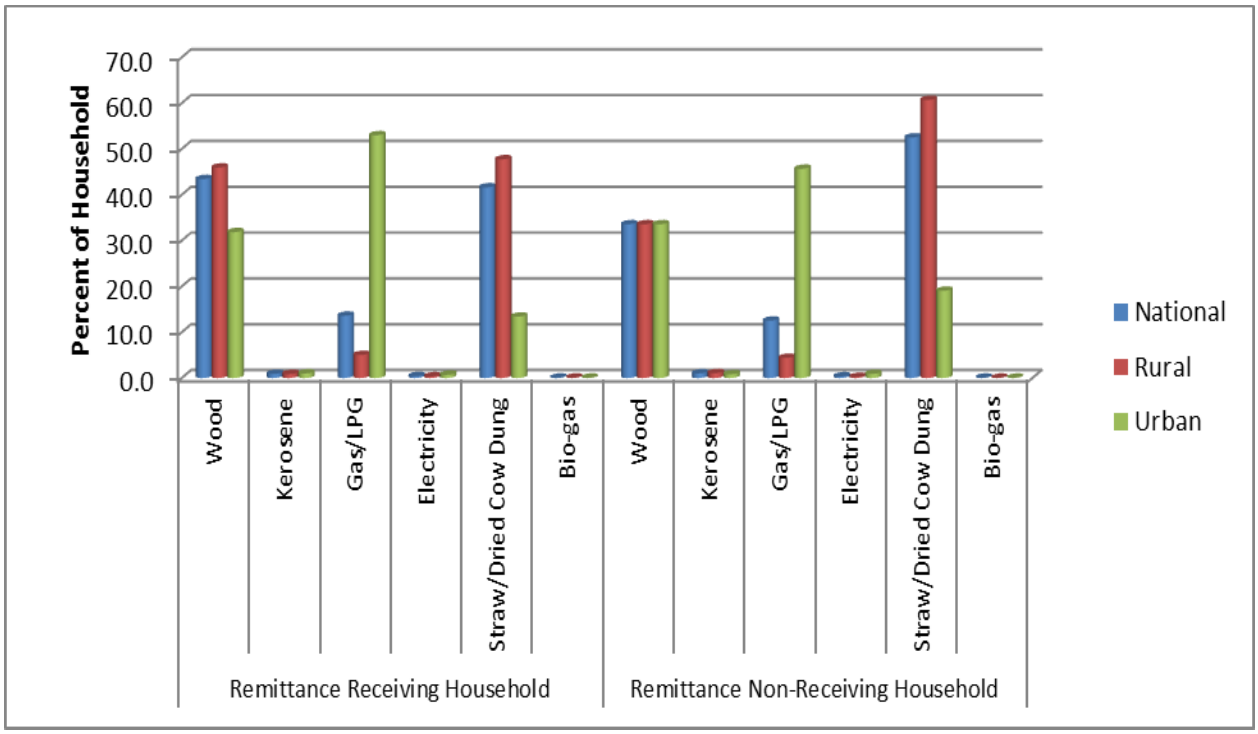
Use of cooking fuel by remittance receiving and non-receiving households has been presented in Table-10.8. It is seen from the table that there exists some differences in the use of cooking fuel by the two types of households. For the remittance receiving households 43.4% use wood, 41.6% use straw/dried cow dung and 13.6% use gas/LPG. On the other hand, for the households without remittance 52.5% use straw/dried cow dung, 33.6% use wood and 12.5% use gas/LPG. It is notable that through there exists no wide variation in the

use of gas/LPG between the two types of households yet use of wood was found higher among the remittance receiving households compared to non-receiving households which is better than the straw/dried cow dung. Similar variation is observed among these two types of households in the urban and rural area of the country.

Table-10.8: Distribution of Households by Cooking Fuel by Remittance Receiving and Non-Receiving Households

Remittance Received or Not	Residence	Fuel used for cooking						
		Total	Wood	Kerosene	Gas/LPG	Electricity	Straw/Dried Cow Dung	Bio-gas
Remittance Receiving Household	National	100.0	43.4	0.9	13.6	0.4	41.6	0.1
	Rural	100.0	45.9	0.9	5.0	0.4	47.7	0.1
	Urban	100.0	31.8	1.0	53.0	0.7	13.4	0.1
Non-Remittance Receiving Household	National	100.0	33.6	1.0	12.5	0.4	52.5	0.1
	Rural	100.0	33.6	1.1	4.4	0.2	60.7	0.1
	Urban	100.0	33.6	0.8	45.7	0.9	19.0	0.1

Figure-56: Use of Cooking Fuel by Access to Remittance



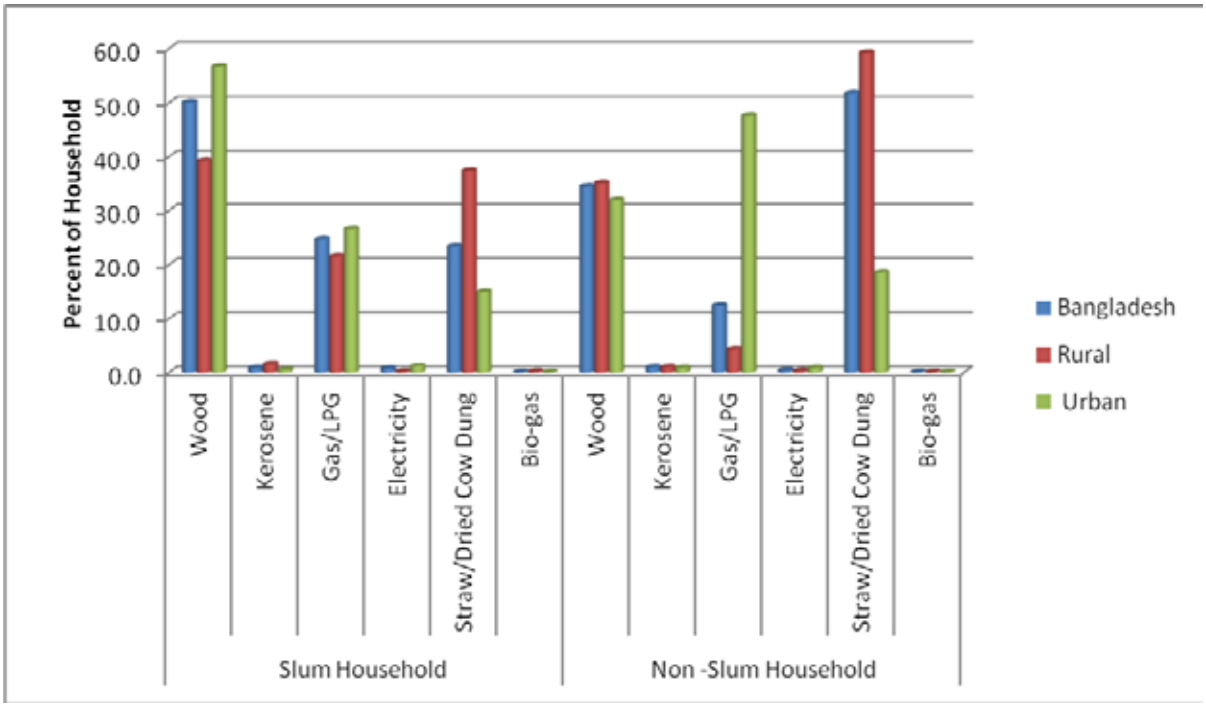
10.9 Type of Cooking Fuel Used by Slum and Non-slum Households

It is notable that there exists considerable difference in the use of fuel by the slum and non-slum households. In case of slum households wood is the highest (50.1%) followed by gas/LPG (24.7%) and straw/dried cow dung (23.4%). In case of non-slum of households the highest 51.7% use straw/dried cow dung as fuel followed by wood (34.5%) and gas/LPG (12.4%). This is due to the higher volume of non-slum households in the rural area who have limited access to gas/LPG compared to slum households who are generally located in big cities and urban centres. Interestingly, the use of gas/LPG for the urban non-slum is higher than slum households, 47.6% versus 26.6%, indicate the affluence of urban non-slum households. As high as 56.7% urban slum households use wood as fuel compared to 32.0% non-slum urban households who use such fuel. This may be due to scarcity of fuel for urban slum households compared to urban non-slum households as urban slum households live in big cities where straw/dried cow dung are not available in higher proportion than small municipalities where a large proportion of non-slum households live.

Table-10.9: Distribution of Household by Type of Fuel by Slum and Non Slum Households

Households	Residence	Fuel Used for Cooking						
Slum & Non Slum Households		Total	Wood	Kerosene	Gas/LPG	Electricity	Straw/Dried Cow Dung	Bio-gas
Slum	Bangladesh	100.0	50.1	0.9	24.7	0.8	23.4	0.1
	Rural	100.0	39.2	1.6	21.5	0.2	37.4	0.2
	Urban	100.0	56.7	0.5	26.6	1.2	15.0	0.1
Non Slum	Bangladesh	100.0	34.5	1.0	12.4	0.4	51.7	0.1
	Rural	100.0	35.1	1.0	4.3	0.3	59.3	0.1
	Urban	100.0	32.0	0.9	47.6	0.9	18.6	0.1

Figure 57: Use of Cooking Fuel by Slum and Non-Slum Household



11. ACCESS TO PRINT AND ELECTRONIC MEDIA BY THE HOUSEHOLD MEMBERS

This chapter deals in the access to print and electronic media by the household members. The print and electronic media includes newspaper, radio, television and internet. It may be mentioned that print and electronic media play an important role in our daily life. Access to these media help the household members about the latest news of home and abroad and establish relation to the people in need. Access to these media also helps in getting information on best health practices, education and global socio-political situation. In order to examine the relation among access to print and electronic media and other socio-economic characteristics of the household head, the data pertaining to access to print and electronic media has been presented by sex of head, literacy, level of education, landownership status of household members and access to remittance.

11.1 Average No. of Member Using Print and Electronic Media by Residence

Average number of household members using print and electronic media by residence has been presented in Table-11.1. It is seen from the table that at the national level, 0.57 male members and 0.10 female members read newspapers, only 0.08 male member and 0.09 female member use radio,1.01 male member and 0.95 female member view television and 0.04 male member and 0.01 female member use internet.

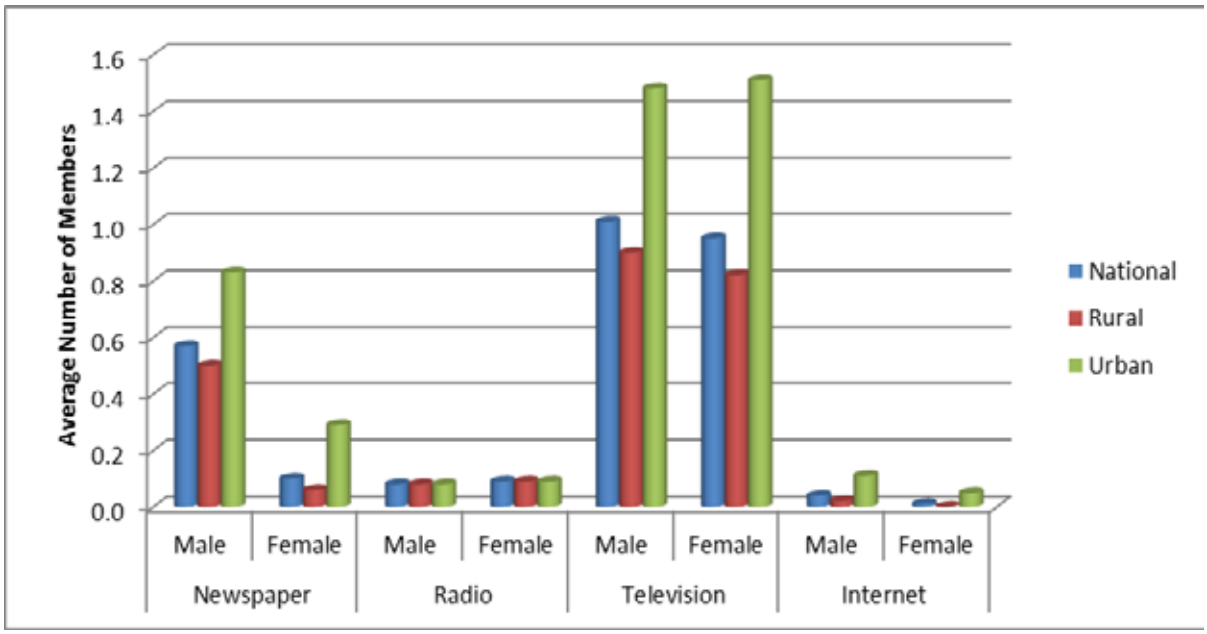
The use of print and electronic media by urban and rural household varies widely which is expected as these facilities are available at a higher rate in urban area then rural area. In the rural area 0.50 male members and 0.06 female member read newspaper. On the other hand, in the urban area 0.83 male member use newspaper and 0.29 female members read newspaper. There is no wide variation in the use of radio between male & female members.

Television is used by 0.90 male and 0.82 female members in the rural area against 1.48 male members and 1.51 female members in the urban area. Use of internet is very scarce in the rural area. Only 0.02 male members in the rural area use internet as against 0.11 male members and 0.05 female members in the urban area.

Table-11.1: Average Number of Household Members Using Print and Electronic Media by Sex

Residence	Newspaper		Radio		Television		Internet	
	Male	Female	Male	Female	Male	Female	Male	Female
National	0.57	0.10	0.08	0.09	1.01	0.95	0.04	0.01
Rural	0.50	0.06	0.08	0.09	0.90	0.82	0.02	0.00
Urban	0.83	0.29	0.08	0.09	1.48	1.51	0.11	0.05

Figure-58: Access to Print and Electronic Media by Residence



11.2 Use of Print and Electronic Media by Division

Use of print and electronic media by divisions of the country has been presented in Table-11.2. It is seen from the table that, the highest average number of male members (0.79) from Dhaka use newspaper followed by Chittagong, Khulna & Rajshahi (0.48) and Rangpur & Sylhet (0.45). The highest number of average male member using newspaper was observed in Dhaka (0.79) and the highest number of average female member using newspaper was also found in Dhaka (0.14) followed by Chittagong and Sylhet (0.12) & Barisal, Rajshahi & Khulna (0.07). the lowest number of average female member from Rangpur Division use newspaper (0.06).

The highest average number of male member using radio was found in Barisal (0.11) followed by Dhaka and Rajshahi (0.10) and Chittagong (0.07). The lowest average number of male members (0.05) using radio was found in Rangpur and Sylhet (0.05). Among the female member the highest average number of members using radio was found in Dhaka (0.11) followed by Barisal (0.10) and Rajshahi (0.10). The lowest average number of female members using radio was found in Sylhet (0.05) preceded by Rangpur (0.06).

Use of television by average male members was found the highest in Dhaka (1.10) followed by Khulna & Chittagong (1.06) & Rajshahi (1.03). The lowest number of average male members using television was observed in Barisal (0.62) preceded by Sylhet (0.75) and Rangpur (0.96). Use of television by average female members was found the highest in Dhaka (1.08) followed by Chittagong (1.06) and Khulna (0.97). The lowest average number of female members using such media was found in Barisal (0.53), preceded by Sylhet (0.73) and Rangpur (0.76).

Use of internet by male members of the household was found the highest in Dhaka (0.06) followed by Chittagong and Sylhet (0.03). The lowest number of male members using internet was found in Rangpur (0.01), preceded by Rajshahi, Khulna and Barisal (0.02). Average number of female members using such facility was found in Dhaka (0.03) followed by Chittagong, Khulna and Rajshahi (0.01).

There exist urban-rural variation in the use of all print and electronic media by average male & female members of the households.

Table-11.2: Average Number of Household Members Using Print and Electronic Media by Divisions

Division	Residence	Newspaper		Radio		Television		Internet	
		Male	Female	Male	Female	Male	Female	Male	Female
Barisal	Total	0.31	0.07	0.11	0.10	0.62	0.53	0.02	0.00
	Rural	0.28	0.05	0.11	0.10	0.54	0.42	0.01	0.00
	Urban	0.52	0.19	0.09	0.10	1.21	1.21	0.06	0.01
Chittagong	Total	0.48	0.12	0.07	0.07	1.06	1.06	0.03	0.01
	Rural	0.45	0.08	0.08	0.07	0.95	0.93	0.02	0.00
	Urban	0.61	0.27	0.05	0.04	1.45	1.52	0.08	0.03
Dhaka	Total	0.79	0.14	0.10	0.11	1.10	1.08	0.06	0.03
	Rural	0.68	0.06	0.09	0.10	0.93	0.89	0.02	0.01
	Urban	1.08	0.37	0.13	0.16	1.58	1.64	0.17	0.09
Khulna	Total	0.48	0.07	0.08	0.08	1.06	0.97	0.02	0.01
	Rural	0.45	0.04	0.09	0.09	1.01	0.89	0.02	0.00
	Urban	0.63	0.22	0.03	0.04	1.35	1.38	0.05	0.02
Rajshahi	Total	0.48	0.07	0.10	0.10	1.03	0.93	0.02	0.01
	Rural	0.46	0.06	0.11	0.12	0.96	0.83	0.01	0.00
	Urban	0.58	0.18	0.05	0.05	1.40	1.42	0.06	0.02
Rangpur	Total	0.45	0.06	0.05	0.06	0.96	0.76	0.01	0.00
	Rural	0.43	0.05	0.06	0.06	0.91	0.70	0.01	0.00
	Urban	0.62	0.13	0.02	0.02	1.32	1.24	0.03	0.01
Sylhet	Total	0.45	0.12	0.05	0.05	0.75	0.73	0.03	0.01
	Rural	0.39	0.08	0.05	0.04	0.65	0.63	0.02	0.00
	Urban	0.85	0.35	0.06	0.06	1.42	1.41	0.12	0.04

11.3 Use of Print and Electronic Media by Zilas

Use of print and electronic media by the members of the households by sex has been presented in Table11.3. It is observed from the table that on an average more than one male member of the household read newspaper was found in only 13 Zilas of the country. These Zilas are Chandpur (1.13), Feni (1.25), Dhaka (1.28), Gazipur (1.18), Jamalpur (1.13), Madaripur (1.16), Kushtia (1.09), Meherpur (1.06), Natore (1.04) & Sirajgonj (1.28). The lowest number of male member used newspaper was found in Sunamgonj (0.09) preceded by Panchagarh (0.12), Sherpur & Bagerhat (0.14). In case of female member, the highest number of members used newspaper was found in Dhaka (0.38), followed by Chittagong (0.21) and Gazipur & Cox's Bazar (0.13). The lowest number of female member used such media was

observed in Netrokona (0.02) preceded by Kushtia, Sherpur, Jamalpur and Panchagarh (0.03) and Patuakhali, Rajbari, Sariatpur, Tangail, Bagerhat, Chuadanga, Narail and Thakurgoan (0.04). Average male member of households who reported to listen to radio was found in Barguna (0.25) followed by Gazipur, Satkhira & Naogoan (0.20) and Rangamati (0.17). The lowest number of male members used such media was found in Sherpur (0.02) preceded by Chuadanga (0.03) and Cox's Bazar, Lakhsmipur, Jamalpur, Jessore, Merpur, Bogra & Dinajpur (0.04). Use of radio by female member was found the highest in Naogaon (0.23) followed by Bogra & Sariatpur (0.19) and Dhaka (0.18). The lowest number of female of households used radio was found in Sherpur and Sunamgonj (0.02) preceded by Chuadanga, Kushtia, Netrokona & Meherpur (0.03) and Cox;s Bazar, Nilphamari and Moulavi Bazar (0.04).

Average number of members watching television among male member was found the highest in Dhaka (1.58) followed by Chittagong (1.45) and Rajshahi (1.32). The lowest number of male members used television was found in Sunamgonj (0.44) preceded by Dhaka (0.48) and Lalmonirhat (0.51). Among the female member the use of television was found the highest in Dhaka (1.65) followed by Narayangonj (1.51) and Chittagong (1.44). The lowest number of female member using television was observed in Bhola (0.30), preceded by Lalmonirhat (0.36) and Sunamgonj (0.43).Use of internet by the male member was the highest for Dhaka (0.18) followed by Chittagong (0.07) and Sylhet (0.05). The use of such communication system by male members in other zilas were found by very scanty number of members using the lowest 0.01 to the highest 0.04 member. Use of internet by female member was very low. Only a few member in different zilas used such system with the highest in Dhaka (0.10).

Table-11.3: Average Number of Household Members Using Print and Electronic Media by Zilas

Zilas	Newspaper		Radio		Television		Internet	
	Male	Female	Male	Female	Male	Female	Male	Female
Barguna	0.22	0.07	0.25	0.19	0.67	0.48	0.02	0.01
Barisal	0.16	0.08	0.06	0.07	0.63	0.65	0.01	0.00
Bhola	0.20	0.09	0.10	0.06	0.48	0.30	0.02	0.00
Jhalokati	0.51	0.10	0.15	0.16	0.77	0.70	0.03	0.01
Patuakhali	0.18	0.04	0.08	0.07	0.58	0.45	0.02	0.01
Pirojpur	0.88	0.06	0.13	0.13	0.76	0.64	0.01	0.00
Bandarban	0.22	0.05	0.14	0.07	0.56	0.40	0.02	0.01
Brahmanbaria	0.21	0.07	0.05	0.06	1.06	1.14	0.01	0.00
Chanpur	1.13	0.12	0.13	0.16	0.71	0.72	0.01	0.00
Chittagong	0.54	0.21	0.09	0.05	1.45	1.44	0.07	0.02
Comilla	0.28	0.07	0.05	0.05	1.12	1.18	0.02	0.00
Cox's Bazar	0.26	0.13	0.04	0.04	0.64	0.50	0.01	0.01
Feni	1.25	0.08	0.05	0.05	1.05	1.11	0.04	0.01
Khagrachhari	0.30	0.12	0.14	0.15	0.96	0.77	0.02	0.01
Lakshmipur	0.20	0.06	0.04	0.05	0.70	0.65	0.04	0.01
Noakhali	0.40	0.06	0.05	0.05	0.86	0.88	0.01	0.00
Rangamati	0.50	0.08	0.17	0.16	0.91	0.87	0.01	0.00
Dhaka	1.28	0.38	0.15	0.18	1.58	1.65	0.18	0.10

Zilas	Newspaper		Radio		Television		Internet	
	Male	Female	Male	Female	Male	Female	Male	Female
Faridpur	0.18	0.04	0.07	0.07	0.83	0.74	0.01	0.01
Gazipur	1.18	0.13	0.20	0.22	1.19	1.20	0.05	0.01
Gopalganj	0.75	0.04	0.07	0.07	0.61	0.58	0.01	0.00
Jamalpur	1.13	0.03	0.04	0.03	0.77	0.66	0.01	0.01
Kishoreganj	0.19	0.08	0.07	0.06	0.81	0.77	0.01	0.00
Madaripur	1.16	0.05	0.10	0.09	0.81	0.78	0.01	0.00
Manikganj	0.98	0.05	0.10	0.10	0.92	0.89	0.01	0.00
Munshiganj	0.17	0.06	0.05	0.05	1.27	1.41	0.02	0.01
Mymensingh	0.19	0.08	0.08	0.10	0.90	0.82	0.01	0.00
Narayanganj	0.22	0.08	0.05	0.06	1.52	1.51	0.04	0.01
Narsingdi	0.94	0.06	0.05	0.08	1.02	1.00	0.01	0.01
Netrokona	0.21	0.02	0.05	0.03	0.57	0.44	0.01	0.00
Rajbari	1.28	0.04	0.08	0.09	0.90	0.80	0.02	0.01
Shariatpur	0.80	0.04	0.14	0.19	0.58	0.59	0.01	0.00
Sherpur	0.14	0.03	0.02	0.02	0.85	0.72	0.01	0.00
Tangail	1.02	0.04	0.09	0.09	0.97	0.92	0.01	0.00
Bagarhat	0.14	0.04	0.08	0.12	0.55	0.53	0.01	0.01
Chuadanga	1.18	0.04	0.03	0.03	0.87	0.74	0.01	0.00
Jessore	0.38	0.10	0.04	0.05	1.25	1.14	0.04	0.01
Jhenaidah	0.31	0.10	0.06	0.07	1.27	1.13	0.04	0.01
Khulna	0.22	0.08	0.09	0.10	1.08	1.06	0.02	0.01
Kushtia	1.09	0.03	0.04	0.03	1.22	1.05	0.03	0.00
Magura	0.27	0.07	0.11	0.11	0.92	0.67	0.02	0.00
Meherpur	1.06	0.05	0.04	0.03	1.18	1.04	0.01	0.00
Narail	0.16	0.04	0.05	0.06	0.86	0.83	0.02	0.00
Satkhira	0.27	0.06	0.20	0.20	1.05	0.99	0.02	0.00
Bogra	0.27	0.08	0.04	0.04	1.02	0.99	0.01	0.00
Joypurhat	0.33	0.07	0.08	0.08	0.88	0.81	0.01	0.00
Naogaon	0.15	0.06	0.20	0.23	0.70	0.63	0.01	0.00
Natore	1.04	0.05	0.06	0.06	1.11	1.01	0.02	0.00
Chapai–Nawabganj	0.29	0.16	0.15	0.17	1.25	0.97	0.02	0.01
Rajshahi	0.22	0.08	0.09	0.08	1.32	1.19	0.04	0.02
Pabna	0.25	0.08	0.10	0.12	1.13	1.01	0.02	0.01
Sirajganj	1.28	0.05	0.10	0.08	0.92	0.78	0.03	0.00
Dinajpur	1.05	0.09	0.04	0.05	0.94	0.86	0.02	0.00
Gaibandha	0.20	0.05	0.06	0.05	0.85	0.64	0.01	0.00
Kurigram	0.70	0.05	0.05	0.05	0.83	0.58	0.00	0.00
Lalmonirhat	0.58	0.05	0.07	0.08	0.51	0.36	0.01	0.00
Nilphamari	0.16	0.05	0.05	0.04	1.33	0.99	0.02	0.00
Panchagarh	0.12	0.03	0.05	0.05	0.68	0.62	0.01	0.00
Ranpur	0.23	0.07	0.06	0.07	1.16	0.92	0.03	0.01
Thakurgaon	0.18	0.04	0.05	0.06	1.05	0.88	0.01	0.00
Habiganj	0.90	0.11	0.05	0.05	0.67	0.65	0.01	0.00
Moulvibazar	0.34	0.12	0.06	0.04	0.93	0.90	0.03	0.01
Sunamganj	0.09	0.04	0.01	0.02	0.44	0.43	0.01	0.00
Sylhet	0.48	0.17	0.07	0.07	0.91	0.91	0.05	0.01

11.4 Household Members Access to Print & Electronic Media by Sex of Head of Household

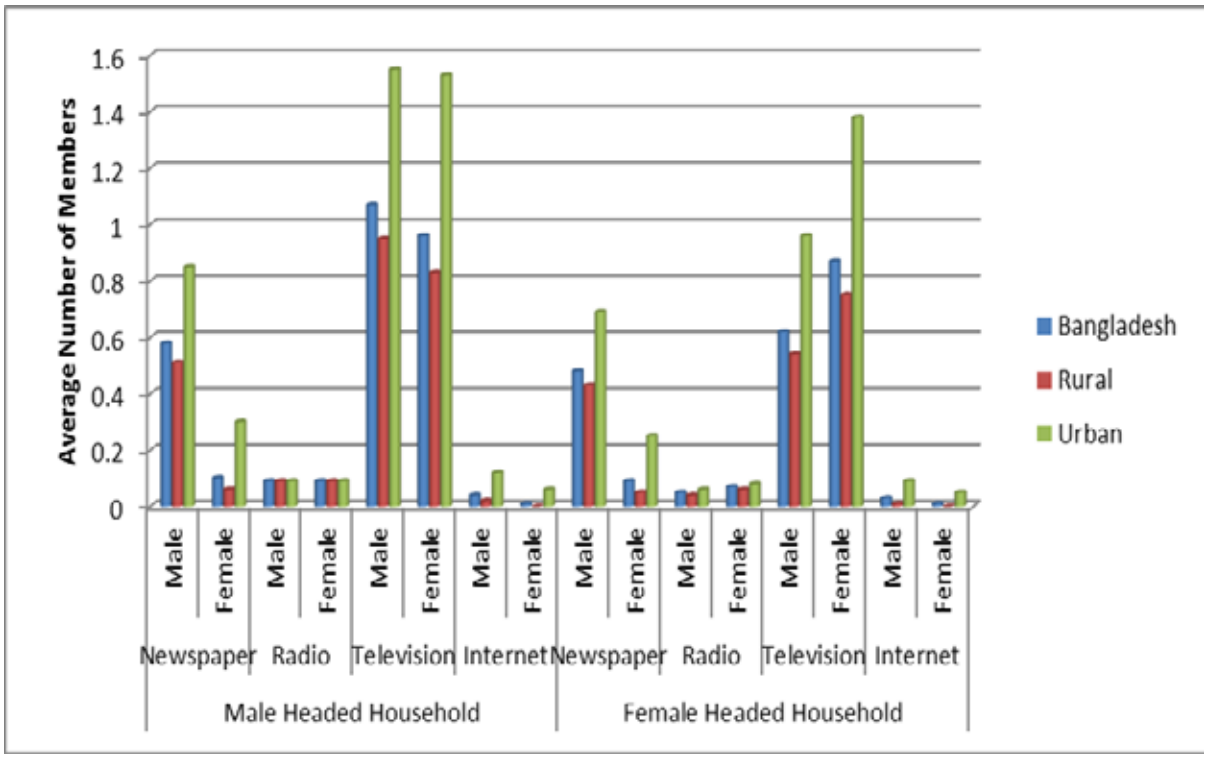
Access to print and electronic media by sex of head of household has been presented in Table-11.4. For the male headed household the average number of members reading news paper for the male headed household was 0.58 and 0.10 respectively for male & female. In case of female headed household average number of household members reading newspapers were 0.48 and 0.09 respectively.

Average number of members using radio in case of male headed households was 0.09 for both male & female. For female headed household this was 0.05 for male and 0.07 for female. Use of television was 1.07 for male and 0.96 for female in case of male headed household as against 0.62 and 0.87 for male and in case of female headed household. Use of internet was found only by 0.04 male and 0.01 female for male household as against 0.03 for male and 0.01 for female in case of female headed household.

Table-11.4: Average Number of Household Members Using Print and Electronic Media by Sex of Head & Residence

Sex of head	Residence	Newspaper		Radio		Television		Internet	
		Male	Female	Male	Female	Male	Female	Male	Female
Male	Bangladesh	0.58	0.10	0.09	0.09	1.07	0.96	0.04	0.01
	Rural	0.51	0.06	0.09	0.09	0.95	0.83	0.02	0.00
	Urban	0.85	0.30	0.09	0.09	1.55	1.53	0.12	0.06
Female	Bangladesh	0.48	0.09	0.05	0.07	0.62	0.87	0.03	0.01
	Rural	0.43	0.05	0.04	0.06	0.54	0.75	0.01	0.00
	Urban	0.69	0.25	0.06	0.08	0.96	1.38	0.09	0.05

Figure-59: Use of Print and Electronic Media by Sex of Head of Household



11.5 Access to Print and Electronic Media by Literacy Level of Head

Access to print and electronic media by literacy level of head has been presented in table-11.5. It is observed that literacy level has positive correlation towards access to print and electronic media.

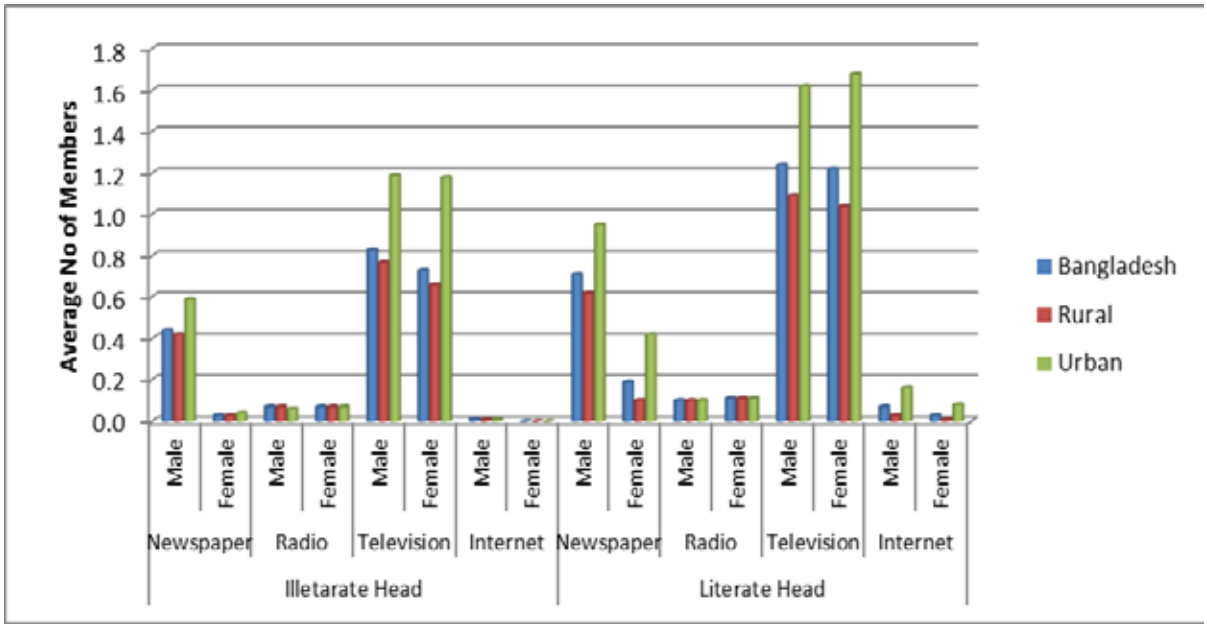
The average number of male & female members reading newspaper are 0.71 and 0.19 respectively for households with literate head corresponding to 0.44 and 0.03 for households with illiterate head. Radio is used by 0.10 and 0.11 members per households in case of households with literate head as against 0.07 for both male & female members of the household with illiterate head.

Television was found to the used by 1.24 male member and 1.22 female member in case of household with literate head as against 0.83 and 0.73 member in case of households with illiterate head. Use of internet was found to the used by 0.07 male and 0.03 female member of household with literate head as against only 0.01 male member in case of illiterate head. This pattern is also true for urban and rural area.

Table-11.5: Average Number of Household Members Using Print and Electronic Media by Literacy Level of Head and Residence

Literacy Level of Head	Residence	Newspaper		Radio		Television		Internet	
		Male	Female	Male	Female	Male	Female	Male	Female
Illiterate	Bangladesh	0.44	0.03	0.07	0.07	0.83	0.73	0.01	0.00
	Rural	0.42	0.03	0.07	0.07	0.77	0.66	0.01	0.00
	Urban	0.59	0.04	0.06	0.07	1.19	1.18	0.01	0.00
Literate	Bangladesh	0.71	0.19	0.10	0.11	1.24	1.22	0.07	0.03
	Rural	0.62	0.10	0.10	0.11	1.09	1.04	0.03	0.01
	Urban	0.95	0.42	0.10	0.11	1.62	1.68	0.16	0.08

Figure-60: Use of Print and Electronic Media by Literacy of Head



11.6 Use of Print and Electronic Media by Level of Education

Use of print and electronic media by level of education of head of household has been presented in Table-11.6. It is observed from the table that access to print and electronic media increases with the increase in the level of education of head.

The use of newspaper for the household with no education of head was 0.48 for male and 0.04 for female, whereas, such average number was 0.99 for male and 0.66 for female with the head of household having masters and above. Radio was used by average 0.08 male and 0.09 female for household with head having no education, whereas, such number for households with head having masters and above was 0.12 and 0.13 for male and female respectively.

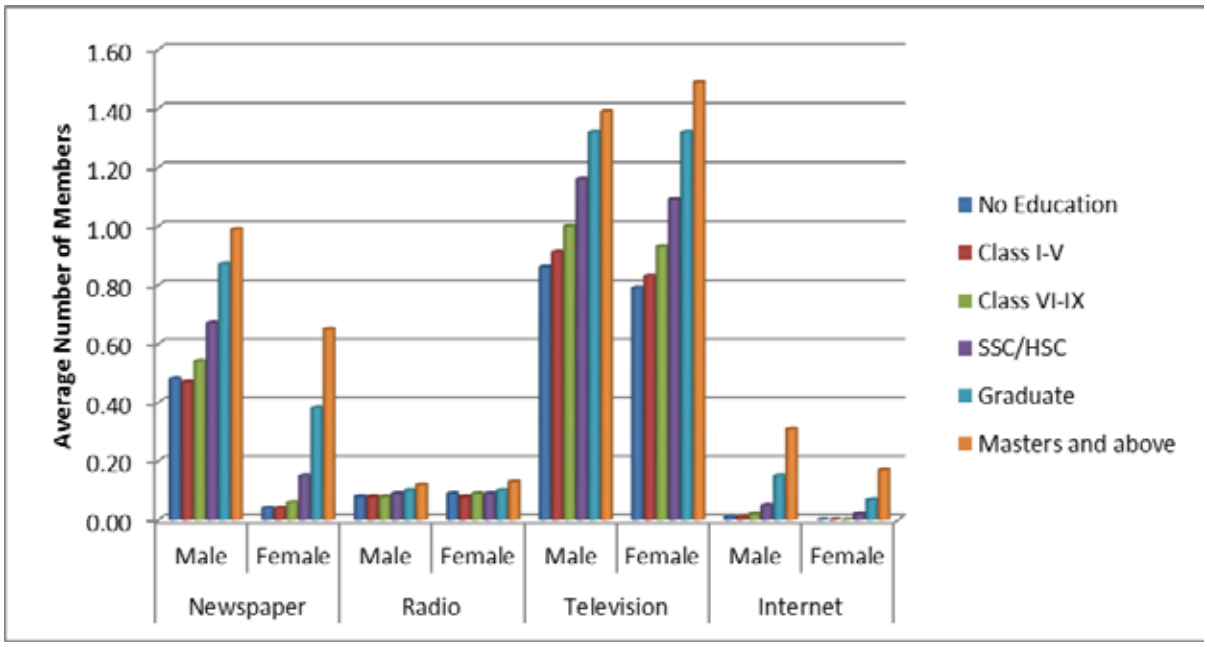
Television was observed to the used by on an average 0.86 male head having no education. On the other hand, for the household with head having masters and above, the average, number of household member using television was 1.39 for male and 1.49 for female. As regards use of internet, only 0.01 male member of the household having head without education used internet, but for the households where head was masters and above on an average 0.31 male member and 0.17 female member used internet.

There exists similar variation in the use of print and electronic media by the head having no education and having higher education in both urban and rural area of Bangladesh.

Table-11.6: Average Number of Household Members Using Print and Electronic Media by Level of Education of Head and Residence

Residence	Level of Education	Newspaper		Radio		Television		Internet	
		Male	Female	Male	Female	Male	Female	Male	Female
Bangladesh	No Education	0.48	0.04	0.08	0.09	0.86	0.79	0.01	0.00
	Class I-V	0.47	0.04	0.08	0.08	0.91	0.83	0.01	0.00
	Class VI-IX	0.54	0.06	0.08	0.09	1.00	0.93	0.02	0.00
	SSC/HSC	0.67	015	0.09	0.09	1.16	1.09	0.05	0.02
	Graduate	0.87	0.38	0.10	0.10	1.32	1.32	0.15	0.07
	Masters and above	0.99	0.65	0.12	0.13	1.39	1.49	0.31	0.17
Rural	No Education	0.46	0.04	0.08	0.08	0.79	0.69	0.01	0.00
	Class I-V	0.44	0.04	0.08	0.08	0.84	0.75	0.01	0.00
	Class VI-IX	0.50	0.05	0.08	0.09	0.91	0.84	0.01	0.00
	SSC/HSC	0.59	0.09	0.09	0.10	1.01	0.92	0.03	0.01
	Graduate	0.71	0.16	0.10	0.09	1.08	0.99	0.06	0.01
	Masters and above	0.67	0.21	0.10	0.11	1.05	0.95	0.07	0.02
Urban	No Education	0.59	0.05	0.08	0.10	1.21	1.25	0.01	0.00
	Class I-V	0.66	0.09	0.07	0.09	1.33	1.33	0.02	0.01
	Class VI-IX	0.73	0.12	0.08	0.07	1.43	1.42	0.04	0.01
	SSC/HSC	0.91	0.35	0.09	0.09	1.59	1.61	0.11	0.05
	Graduate	0.11	0.69	0.11	0.13	1.68	1.81	0.29	0.15
	Masters and above	1.22	0.96	0.13	0.15	1.64	1.88	0.48	0.29

Figure-61: Average number of Household Members Using Print and Electronic Media



10.7 Use of Print and Electronic Media by the land Ownership of the household

The use of print and electronic media by the members of the households by the land ownership of household classified by any member owning land and female member owning land has been presented in Table-11.7. It is observed from the table that there exists some variation in the use of print and electronic media by the members with any member owning land and female member owning land.

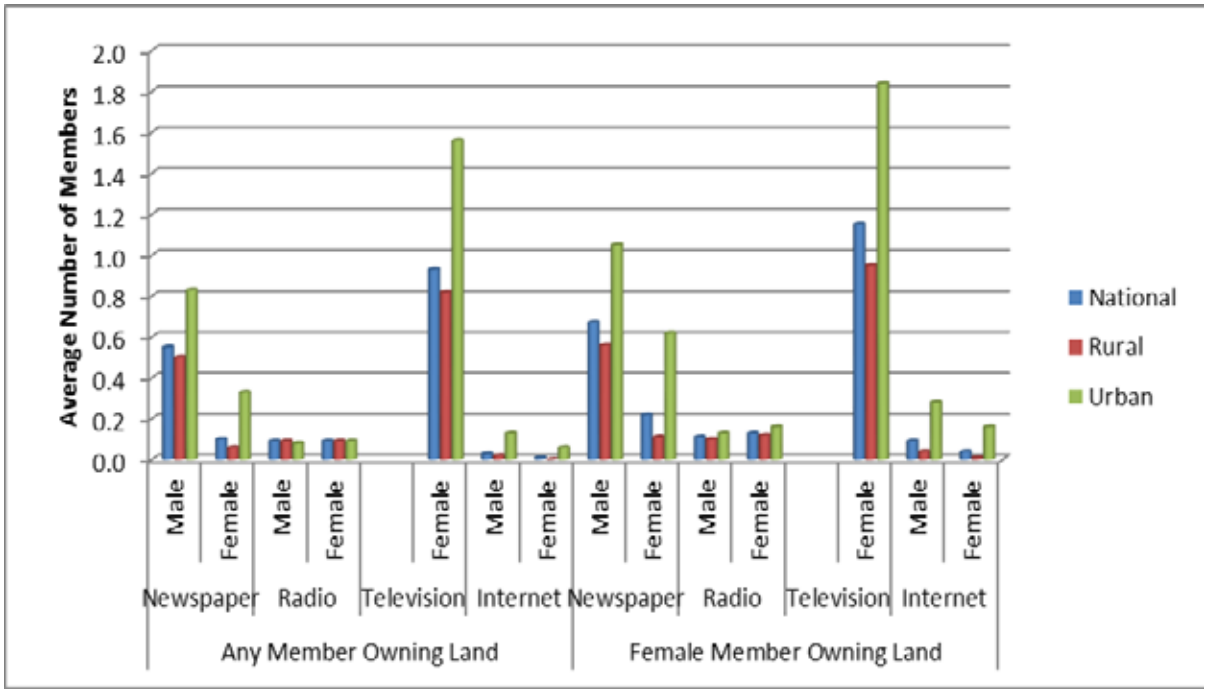
At the aggregate level, for any member owning land, on an average 0.55 male member and 0.10 female member use newspaper as against 0.67 male member and 0.22 female member used newspaper where female member owning land. As regards use of radio, 0.09 male & female member use for the households where any member own land corresponding to 0.11 and 0.13 member use radio for female member owning land. Use of television was found for 1.00 male members and 0.93 female member for the household with any member owning land corresponding to 1.14 male member and 1.15 female member using such media for the households where female member owned land. Internet was used by 0.03 male member and 0.01 female member for the household where any member owned land corresponding to 0.09 male member and 0.04 female member using such media with female member owning land.

There also exists similar variation among households with any member owning land and female member owning land in both urban and rural area of the country.

Table-11.7: Average Number of Household Members Using Print and Electronic Media by Land Ownership & Residence

Land Ownership Status	Residence	Newspaper		Radio		Television		Internet	
		Male	Female	Male	Female	Male	Female	Male	Female
Any Member Owning Land	National	0.55	0.10	0.09	0.09	1.00	0.93	0.03	0.01
	Rural	0.50	0.06	0.09	0.09	0.91	0.82	0.02	0.00
	Urban	0.83	0.33	0.08	0.09	1.53	1.56	0.13	0.06
Female Member Owning Land	National	0.67	0.22	0.11	0.13	1.14	1.15	0.09	0.04
	Rural	0.56	0.11	0.10	0.12	0.99	0.95	0.04	0.01
	Urban	1.05	0.62	0.13	0.16	1.67	1.84	0.28	0.16

Figure-62: Use of Print and Electronic Media by Access to Land



11.8 Use of Print and Electronic Media by Remittance Receiving and Non-receiving Household.

The use of print and electronic media by remittance receiving and non-receiving household in Table-11.8 indicate that the difference in use of print and electronic media by these two types of households is not very significant.

In case of remittance receiving household on an average 0.56 male and0.13 female member read news paper as against 0.57 male and 0.10 female members use such media. Radio is used by on an average 0.08 male and 0.09 female members of the remittance receiving households as against same average number of male and female members of the non-remittance receiving households. Television was reported to be used by on an average 1.06

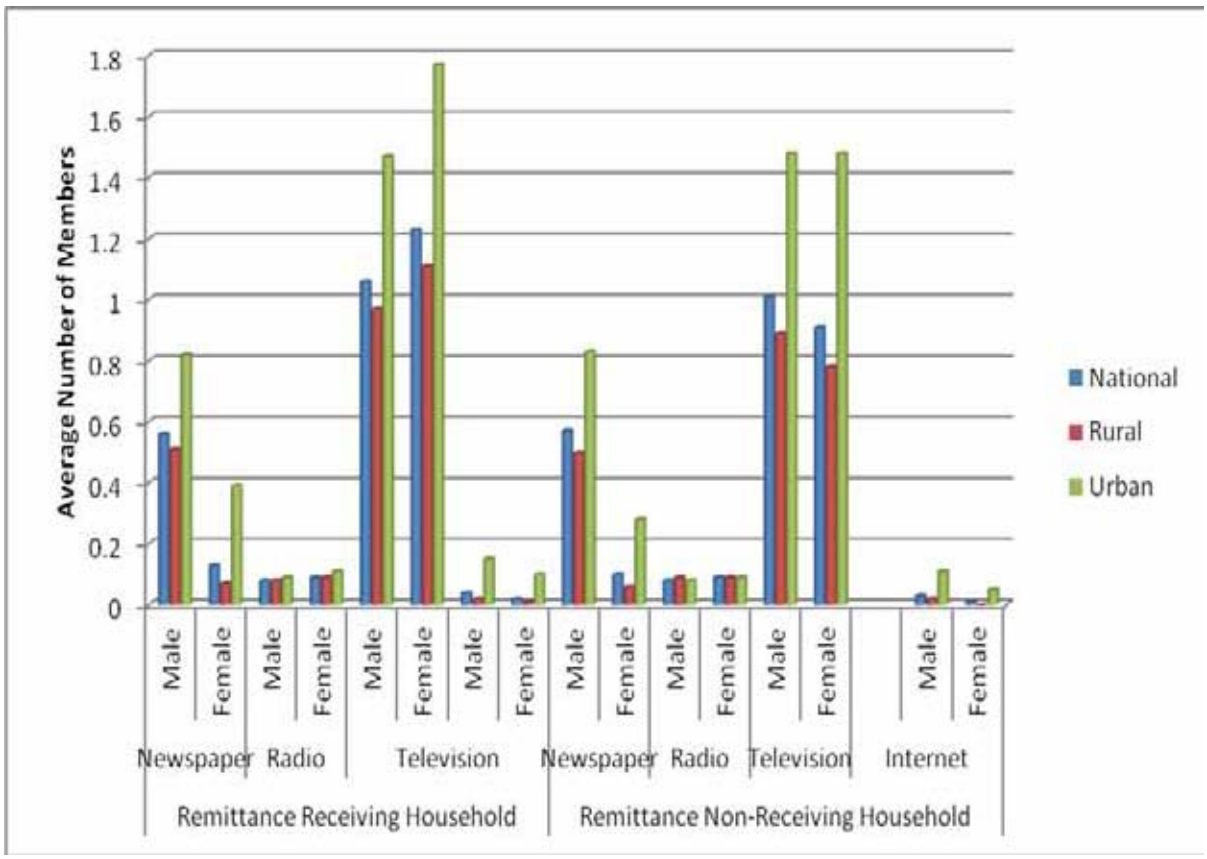
male and 1.23 female member of the remittance receiving household compared to 1.01 male and 0.91 female member of the remittance non-receiving households. Internet is used by on an average 0.04 male member and 0.02 female member of the remittance receiving households as against 0.03 male member and 0.01 female member of the remittance non receiving households.

The urban-rural variation in use of such print and electronic media were also observed between remittance receiving and non-receiving households.

Table-11.8: Average Number of Household Members Using Print and Electronic Media by Remittance Receiving and Non Receiving Household

Remittance Received or Not	Residence	Newspaper		Radio		Television		Internet	
		Male	Female	Male	Female	Male	Female	Male	Female
Remittance Receiving Household	National	0.56	0.13	0.08	0.09	1.06	1.23	0.04	0.02
	Rural	0.51	0.07	0.08	0.09	0.97	1.11	0.02	0.01
	Urban	0.82	0.39	0.09	0.11	1.47	1.77	0.15	0.10
Remittance Non-receiving Household	National	0.57	0.10	0.08	0.09	1.01	0.91	0.03	0.01
	Rural	0.50	0.06	0.09	0.09	0.89	0.78	0.02	0.00
	Urban	0.83	0.28	0.08	0.09	1.48	1.48	0.11	0.05

Figure-63: Access to Print and Electronic Media by Access to Remittance



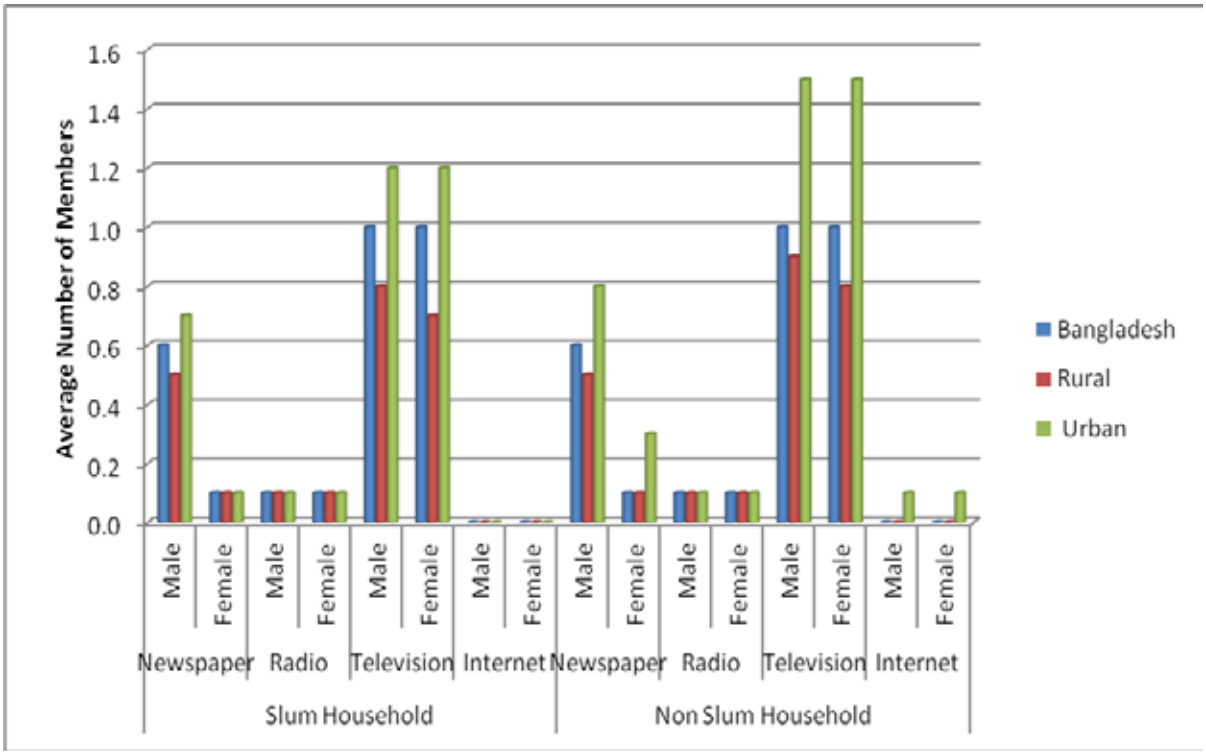
11.9 Use of Print and Electric Media by Slum and Non-slum Households.

The use of print and electric media by slum and non-slum household has been presented in Table.11.9 It is observed that there is no significant difference between slum and non-slum households in the use of print and electronic media as the slums are located in big urban centers where there is availability of print and electric media is much higher than rural and small urban centers. However, there is marginal different in use of newspaper by the urban non-slum households which is higher than slum households. Uses of television by urban-non-slum households are higher than slum household which indicate the affluence of the urban non-slum households. This is also true for the use of internet. The use of internet by urban slum households is not observed where non-slum urban households use such media.

Table-11.9: Average Number of Household Members Using Print and Electronic Media by Slum & non Slum Households

Households	Residence	Type of Media							
Slum & Non Slum Households	Residence	Newspaper		Radio		Television		Internet	
Slum		Male	Female	Male	Female	Male	Female	Male	Female
	Bangladesh	0.6	0.1	0.1	0.1	1.0	1.0	0.0	0.0
	Rural	0.5	0.1	0.1	0.1	0.8	0.7	0.0	0.0
	Urban	0.7	0.1	0.1	0.1	1.2	1.2	0.0	0.0
Non Slum	Bangladesh	0.6	0.1	0.1	0.1	1.0	1.0	0.0	0.0
	Rural	0.5	0.1	0.1	0.1	0.9	0.8	0.0	0.0
	Urban	0.8	0.3	0.1	0.1	1.5	1.5	0.1	0.1

Figure-64: Access to Print and Electronic Media by Slum and Non- Slum Households



12. HOUSEHOLD ASSETS

Household assets are important element for maintaining the standard of living of household members. Some of the household assets are used for recreation of household members, some are used means of transportation and some are useful for maintaining better living standard. The household assets that are ownership of boat, bull/buffalo cart, push cart/rickshaw/van, bicycle, motorcycle, motor car/bus/truck, scooter/CNG/auto rickshaw, telephone, mobile, sewing machine, television/radio/transistor, dish antenna, computer & fridge/deep fridge. Ownership of these assets have been presented by residence, divisions, zilas, sex of head of household, literacy level of education of head, landownership and access to remittance of the households.

12.1 Ownership of Household Asset by Residence

Ownership of household assets have been presented in Table-12.1. It is observed from the table that at the aggregate level, 4.01% household have boat, 1.72% households have been bullock/buffalo cart, 4.08% households have push cart rickshaw/van 2.17% households have rickshaw, 23.18% households have bicycle, 4.67% households have motorcycle, 1.22% households have motor car/bus/truck, 1.24% households have scooter/CNG/auto rickshaw, 2.22% households have land telephone, 76.59% household have mobile phone, 8.03% households have sewing machine, 3.88% households have computer & 12.42% households have fridge or deep fridge.

There exists remarkable urban-rural variation in the ownership of these assets. Some of the assets like boat, bull/buffalo cart, push cart/rickshaw/van, bicycle are reported to own at a higher percentage for the rural household while motorcycle, motor car/bus/truck, scooter/CNG/auto rickshaw, telephone, mobile, sewing machine, television/radio/transistor, dish antenna, computer & fridge/deep fridge are owned at a higher percentage by the urban household. It is notable that owning of mobile phone, television/radio/transistor, dish antenna, computer & fridge/deep fridge were reported respectively by 86.68%, 65.53%, 54.64%, 13.83% and 37.16% urban household.

Table-12.1: Household by Assets by Residence

Residence	Household Assets (% of household)														
	Boat	Bull/ Buffalo Cart	Push Cart/ Rickshaw/ Van	Rick-shaw	Bicycle	Motor-cycle	Motor car Bus/ Truck	Scooter/ CNG/ Auto Rickshaw	Tele-phone	Mobile	Sewing machine	Television/ Radio/ Transistor	Dish Antenna	Computer	Fridge/Deep fridge
Bangladesh	4.01	1.72	4.08	2.17	23.18	4.67	1.22	1.24	2.22	76.59	8.03	36.51	19.94	3.88	12.42
Rural	4.75	2.00	4.41	2.06	25.07	4.05	0.58	1.13	0.88	74.15	6.25	29.50	11.56	1.48	6.46
Urban	0.95	0.55	2.74	2.64	15.38	7.23	3.85	1.68	7.78	86.68	15.42	65.53	54.64	13.83	37.10

12.2 Ownership of Household Asset by Divisions

Owning of household assets by divisions of the country has been presented in Table-12.2. It is observed from the table that, owning of the assets depends on the location of the divisions in the geographical settings of the country. Water transport is used at a higher rate in the riverine divisions, whereas land transports are available in the divisions of the northern Bangladesh where the road communication are better than southern part of the country.

Boat was observed by the highest 9.91% household of Barisal division whereas it was owned by the lowest 0.57% household in Rangpur division. Bullock/Buffalo cart was reported to own the highest 3.4% household of Sylhet division and the lowest 1.3% households in Dhaka & Chittagong division. Ownership of push cart/rickshaw/van was found the highest 6.97% household of Khulna division and the lowest 1.62% households of Sylhet division. Rickshaw was reported to own by the highest 2.85% household of Chittagong division and the lowest 0.99% in Khulna division. Bicycle was found the highest for 47.1% household in Khulna division and the lowest 6.29% household of Sylhet division.Ownership of motor cycle was found the highest for 6.47% household of Rangpur division and the lowest 2.97% household Barisal division. Ownership of motor car/bus/truck was reported to own by the highest household of Dhaka division (2.27%) and the lowest 0.48% for Rajshahi & Rangpur division. Household reported ownership of scooter/CNG/auto rickshaw was the highest in Chittagong division (1.46%) and the lowest in Rangpur (0.94%). Ownership of land telephone was reported to own by the highest 3.64% household in Dhaka division and the lowest 0.87% household of Rangpur division. Mobile phone was reported to own by the highest 82.5% household of Chittagong division and the lowest 61.61% household of Rangpur division. Ownership of sewing machine was reported to own by the highest 9.69% household of Dhaka division and the lowest 4.77% household of Rangpur division. Television/Radio/ Transistor was reported to own by the highest 43.57% household Dhaka division and the lowest 23.73% household of Rangpur division. Dish antenna was found to be used by the highest 28.95% household of Dhaka division and the lowest 8.25% household of Sylhet division. Computer was used by the highest 6.87% household of Dhaka division and the lowest 1.40% household of Rangpur division. Ownership of fridge/deep fridge was reported to use of the highest 19.83% household of Dhaka division and the lowest 3.05% household of Rangpur division.

Table-12.2: Household by Asset ownership & Divisions

(% of household)

Division	Residence	Boat	Bull / Buffalo Cart	Push Cart/ Rickshaw/ Van	Rickshaw	Bicycle	Motorcycle	Motor car / bus/ Truck	Scooter/ CNG/ Auto Rickshaw	Telephone	Mobile	Sewing machine	Television/ Radio/ Transistor	Dish Antenna	Computer	Fridge/Deep fridge
Barisal	Total	9.91	1.98	1.83	2.63	8.55	2.97	0.60	1.02	1.40	77.40	6.77	23.21	9.23	1.52	6.53
	Rural	11.04	2.14	1.79	2.47	7.53	2.14	0.53	0.95	0.81	75.66	5.37	18.09	3.56	0.62	2.79
	Urban	2.30	0.89	2.09	3.72	15.40	8.56	1.05	1.51	5.39	89.11	16.17	57.65	47.40	7.58	31.63
Chittagong	Total	3.84	1.34	1.72	2.85	10.44	3.03	0.89	1.46	2.10	82.58	8.79	39.68	17.66	3.47	14.90
	Rural	4.60	1.60	1.86	3.00	10.79	2.68	0.61	1.31	1.11	80.89	7.70	33.02	8.71	1.58	9.88
	Urban	1.06	0.40	1.20	2.32	9.14	4.31	1.93	2.01	5.73	88.79	12.80	64.19	50.57	10.41	33.36
Dhaka	Total	4.85	1.34	3.29	2.44	15.68	4.13	2.27	1.20	3.64	79.65	9.69	43.57	28.95	6.87	19.83
	Rural	6.29	1.65	3.63	2.29	18.49	3.43	0.71	1.02	1.09	76.41	6.97	33.50	16.92	2.20	10.13
	Urban	0.78	0.46	2.36	2.87	7.79	6.10	6.67	1.68	10.82	88.77	17.33	71.86	62.74	19.97	47.06
Khulna	Total	3.01	2.26	6.97	0.99	47.16	6.37	0.81	1.21	1.42	78.45	8.17	37.00	18.83	2.29	7.37
	Rural	3.45	2.52	7.18	0.68	48.86	5.68	0.68	1.14	0.65	76.86	6.44	32.31	13.45	1.17	3.14
	Urban	0. 70	0.84	5.85	2.62	38.24	10.00	1.45	1.55	5.51	86.79	17.25	61.67	47.09	8.18	29.60
Rajshahi	Total	2.20	1.60	6.57	1.35	32.89	6.19	0.48	1.39	1.23	74.24	7.45	35.23	21.14	2.25	6.60
	Rural	2.46	1.83	6.93	1.27	33.54	5.30	0.36	1.33	0.67	72.56	6.01	30.61	14.85	1.14	2.91
	Urban	0.81	0.36	4.62	1.78	29.40	10.92	1.16	1.69	4.21	83.19	15.10	59.74	54.56	8.15	26.22
Rangpur	Total	0.57	2.02	6.23	2.61	42.90	6.47	0.48	0.94	0.87	61.61	4.77	23.73	8.53	1.40	3.05
	Rural	0.61	2.15	6.67	2.54	44.49	5.81	0.41	0.93	0.46	60.06	4.05	20.02	4.47	0.80	1.38
	Urban	0.20	1.08	2.94	3.14	30.86	11.46	1.03	1.03	3.99	73.25	10.21	51.68	39.08	5.92	15.64
Sylhet	Total	7.44	3.40	1.62	1.58	6.29	3.52	0.86	1.32	1.99	72.85	5.27	27.87	8.25	2.58	11.92
	Rural	7.99	3.78	1.60	1.50	6.21	2.88	0.64	1.24	1.08	71.18	4.41	23.45	4.46	1.35	8.45
	Urban	3.63	0.79	1.80	2.14	6.88	7.94	2.41	1.82	8.32	84.48	11.27	58.49	34.56	11.11	35.98

12.3 Ownership of Household Asset by Zilas

Households assets ownership bu zilas have been presented in Table-12.3. It is observed from the table that ownership of assets varies widely with the zilas. Some of the assets are available/owned on the basis of location and on the other hand some of the assets are available by the economic condition of the members of the households. The use of electronic media was observed at a higher rate in the urbanized zilas.

It is observed from the table that the highest 29.37% households of Gopalgonj zila reported to own boat and lowest 0.17% households of Panchagrah owned boat. Bullock/Buffalo Cart was reported to own by the highest 5.13% households of Jhenaidha and the lowest 0.21% households of Feni. Push cart/Rickshaw/van was reported to own by 10.80% households of Joypurhat and the lowest 0.50% households of Rangamati. Rickshaw was owned by the highest 5.16% households of Cox's bazaar and the lowest 0.33% households of Rangamati .Ownership of bicycle was reported by the highest 59.76% households of Jhenaidha and the lowest 2.81% households of Cox's bazaar zila .Motorcycle was reported to own by the highest 10.39% households of Chuadanga and the lowest 1.13% households of Sunamgonj. Motor car/bus/truck was reported to own by 6.27% households of Dhaka Zila and the lowest 0.25% households of Sirajgonj and Nilphamari. Ownership of scooter/CNG/auto rickshaw was reported by 2.80% households of Gazipur compared to the lowest 0.38% households in Sunamgonj. Land telephone was owned by the highest 10.32% households of Dhaka zila and the lowest 0.46% households of Satkhira zila. The ownership of mobile phone was reported to the highest 90.57% households of Dhaka zila and the lowest 54.34% households of Nilphamari zila. Ownership of sewing machine was claimed by 17.13% households of Dhaka zila and the lowest 2.25% households of Panchagrah zila. Television/Radio/Transistor was reported to own by the highest 73.76% households of Dhaka zila and the lowest 13.77% household of Netrokona zila. It is notable that the highest 61.78% household of Dhaka zila have connection of dish antenna and the lowest 2.64% households of Sunamgonj have owned dish antenna. Ownership of computer was reported by 20.34% households of Dhaka zila and the lowest 0.63% households of Bhola. Fridge or deep fridge was claimed to own by the highest 46.30% households of Dhaka zila compared to the lowest 1.96% household of Lalmonirhat zila.

Table-12.3: Distribution of Household by Ownership of Assets By Zilas

Residence	Household Assets (% of household)														
	Boat	Bull/ Buffalo Cart	Push Cart/ Rickshaw/ Van	Rickshaw	Bicycle	Motorcycle	Motor car/ Bus Truck	Scooter/ CNG/ Auto Rickshaw	Telephone	Mobile	Sewing machine	Televisio/ Radio/ Transistor	Dish Antenna	Computer	Fridge/Deep fridge
Barguna	5.05	3.34	1.54	3.25	6.13	2.46	0.63	0.79	1.29	74.84	5.09	17.61	5.09	1.34	2.96
Barisal	11.89	1.36	2.26	1.25	9.59	3.26	0.46	0.93	1.48	79.54	7.67	30.54	18.17	2.58	11.24
Bhola	7.48	2.59	1.76	4.68	13.96	3.47	0.88	1.46	1.30	73.20	5.52	13.80	3.55	0.63	3.30
Jhalokati	7.97	1.67	1.80	2.09	7.64	2.80	0.71	0.96	1.34	81.92	10.44	29.98	9.19	2.34	8.94
Patuakhali	8.57	2.17	1.88	2.55	3.76	3.09	0.54	1.05	1.30	76.51	6.15	18.56	3.89	0.88	4.35
Pirojpur	16.58	1.09	1.30	2.30	7.64	2.05	0.46	0.75	1.67	79.82	6.77	29.07	10.36	1.25	6.27
Bandarban	3.51	1.01	0.76	0.47	2.62	1.90	0.34	0.55	0.80	59.66	7.44	16.66	5.92	1.01	2.96
Brahmanbaria	7.76	0.63	1.00	1.84	5.88	1.42	0.50	1.09	2.00	84.64	9.06	40.48	11.39	2.05	14.07
Chandpur	6.49	2.01	1.26	2.51	11.60	2.26	0.38	0.88	0.92	80.36	6.16	29.94	8.58	1.30	6.11
Chittagong	1.20	0.76	2.32	1.81	9.25	3.98	1.54	1.99	4.04	89.00	8.16	57.42	36.57	7.09	25.77
Comilla	5.43	2.59	0.96	3.18	14.17	2.88	0.59	1.13	1.46	86.04	11.83	40.20	13.62	3.05	14.54
Cox'sbazar	3.94	0.76	2.98	5.16	2.81	2.27	1.13	2.43	1.47	66.39	8.18	15.82	9.53	1.97	5.92
Feni	0.63	0.21	0.96	2.80	14.36	3.39	0.84	2.05	1.42	90.08	10.21	51.40	17.54	3.89	23.65
Khagrachhari	0.88	1.21	0.58	0.75	4.85	3.30	0.58	0.79	1.25	66.71	6.89	19.97	8.35	1.38	2.92
Lakshmipur	2.51	2.96	2.21	5.55	13.70	2.92	0.79	1.17	0.83	80.63	7.27	28.39	8.35	1.71	8.23
Noakhali	1.73	0.76	2.41	4.27	15.78	3.76	0.72	1.23	1.44	79.23	8.59	28.72	6.81	1.27	9.05
Rangamati	18.50	1.09	0.50	0.33	1.29	1.75	0.29	0.46	1.42	65.51	7.43	29.56	9.10	1.21	3.17
Dhaka	1.89	0.73	1.51	1.97	4.85	3.98	6.27	1.07	10.32	90.57	17.13	73.76	61.78	20.34	46.30
Faridpur	7.31	2.09	5.18	0.84	21.92	4.68	1.04	1.46	0.75	82.96	5.89	25.89	13.78	1.96	7.31
Gazipur	1.25	1.63	4.55	4.30	15.94	7.64	3.30	2.80	3.34	88.23	10.60	55.84	35.77	6.14	23.08
Gopalganj	29.37	1.54	7.22	0.71	13.68	2.09	0.54	1.38	1.71	77.97	5.51	25.07	9.60	1.08	6.59
Jamalpur	1.29	0.63	4.17	1.71	29.27	3.67	0.54	1.00	0.71	63.80	5.38	18.52	8.67	0.92	3.71
Kishoreganj	6.26	1.46	1.09	2.80	18.91	3.05	0.46	0.96	0.71	69.48	5.76	23.59	10.61	1.46	6.39
Madaripur	22.13	4.09	3.97	0.96	7.14	3.76	0.50	1.04	1.50	85.14	6.72	32.86	17.87	1.71	10.86
Manikganj	10.03	1.26	2.39	3.19	30.29	4.78	0.55	0.76	1.68	79.74	3.61	30.75	16.82	1.09	7.13
Munshiganj	17.53	0.50	1.09	2.34	4.55	1.54	0.71	0.92	0.79	88.52	10.10	59.39	36.02	2.55	33.85
Mymensingh	0.71	2.96	5.42	3.50	20.57	4.71	0.63	0.92	1.08	70.13	6.47	25.95	8.72	2.09	5.88
Narayanganj	3.57	0.58	1.25	1.88	3.71	1.43	1.38	1.30	1.83	82.76	12.77	63.15	47.83	4.82	26.89
Narsingdi	3.92	0.08	1.50	2.46	15.53	2.76	0.58	1.17	1.71	76.58	11.23	37.16	18.16	3.47	12.73
Netrokona	6.18	2.55	2.30	3.21	19.91	3.30	0.67	0.79	1.25	65.44	3.17	13.77	3.26	0.83	2.67
Rajbari	3.64	0.38	6.82	2.01	37.31	5.14	0.50	1.80	1.21	78.63	5.31	28.65	18.32	2.34	6.94
Sariatpur	13.37	0.71	2.42	2.93	5.60	3.76	0.42	1.04	1.42	83.16	6.39	27.20	10.74	0.75	7.48
Sherpur	1.25	1.59	4.17	4.30	16.69	3.63	0.79	1.17	0.92	57.03	4.05	18.65	5.01	0.88	1.75

Residence	Household Assets (% of household)														
	Boat	Bull/ Buffalo Cart	Push Cart/ Rickshaw/ Van	Rickshaw	Bicycle	Motorcycle	Motor car/ Bus Truck	Scooter/ CNG/ Auto Rickshaw	Telephone	Mobile	Sewing machine	Televisio/ Radio/ Transistor	Dish Antenna	Computer	Fridge/Deep fridge
Tangail	4.27	1.13	6.57	1.67	32.26	5.90	0.59	0.92	1.21	78.20	6.95	34.73	17.99	1.80	9.37
Bagerhat	9.35	1.13	7.30	1.01	23.15	3.48	0.42	1.01	0.88	74.33	8.47	27.64	8.64	1.55	6.25
Chuadanga	0.25	2.10	6.33	1.22	59.01	10.39	0.71	1.51	1.22	78.29	8.05	32.23	21.71	1.93	6.71
Jessore	1.17	2.79	7.63	1.25	55.59	6.71	1.29	0.96	1.75	81.78	7.30	39.53	22.39	3.09	8.67
Jhenaidah	0.55	5.13	4.84	0.67	59.76	6.18	1.05	1.85	1.18	82.13	6.56	41.46	19.72	2.27	6.77
Khulna	8.03	0.34	6.27	1.33	26.90	4.92	0.87	0.77	3.39	77.00	14.32	47.39	22.71	3.98	13.82
Kuhstia	0.46	1.71	6.68	0.92	48.27	7.60	0.58	1.34	0.88	76.20	7.72	37.33	25.76	1.71	5.85
Magura	0.63	3.06	10.10	0.80	47.07	4.95	0.71	1.97	1.05	77.70	4.69	28.88	10.69	1.89	5.70
Meherpur	0.63	2.46	4.51	0.79	59.64	9.31	0.79	1.67	1.13	76.84	6.76	35.89	26.63	1.79	5.47
Narail	4.63	4.76	8.56	0.46	37.33	4.38	0.50	1.17	0.88	77.95	6.01	29.60	13.44	1.46	6.39
Satkhira	2.80	1.34	8.15	0.75	56.29	6.56	0.54	0.84	0.46	78.69	6.77	33.47	10.07	1.21	3.18
Bogra	1.09	0.25	8.35	1.67	28.00	6.22	0.67	2.00	1.09	75.13	8.26	39.36	27.38	2.88	8.14
Joypurhat	0.21	0.42	10.80	0.79	39.91	7.88	0.42	1.46	1.17	72.85	5.38	41.28	24.15	1.75	5.21
Naogaon	1.29	2.59	8.51	0.96	36.67	6.05	0.33	1.34	0.63	73.68	6.42	33.00	12.18	1.38	2.50
Natore	1.84	2.46	6.35	1.00	34.61	6.30	0.67	1.42	1.38	76.62	6.56	37.87	20.96	2.00	6.64
Chapai Nawabganj	0.76	3.03	4.26	1.64	48.84	6.41	0.38	0.59	1.35	70.88	6.62	23.39	16.86	1.43	4.97
Rajshahi	1.26	1.36	5.85	1.20	46.25	8.72	0.53	1.56	2.09	74.82	8.28	48.41	29.97	4.13	10.73
Pabna	4.22	1.63	6.05	1.00	23.80	5.34	0.58	1.71	1.09	78.50	8.48	33.28	19.83	1.84	7.64
Sirajganj	5.14	1.67	3.51	1.96	19.65	3.97	0.25	0.63	1.17	70.40	7.48	24.46	16.30	1.71	5.27
Dinajpur	0.08	2.27	7.81	2.77	46.56	7.47	0.34	1.34	0.50	67.21	5.92	32.12	13.98	1.43	3.65
Gaibandha	1.71	0.54	6.68	2.84	28.35	3.88	0.50	1.13	0.79	58.91	5.01	19.58	8.43	1.38	3.51
Kurigram	1.04	0.96	2.30	3.72	40.66	4.64	0.42	0.84	0.63	59.63	4.64	13.83	4.18	1.30	2.26
Lalmonirhat	0.38	1.92	5.80	2.96	43.78	7.47	0.67	0.96	0.83	60.48	4.51	16.28	5.26	0.67	1.96
Nilphamari	0.29	3.00	4.63	1.58	42.24	5.84	0.25	0.67	1.29	54.34	5.17	24.02	8.63	1.83	3.21
Panchagarh	0.17	0.33	8.68	0.71	50.17	8.26	0.63	0.46	0.58	63.36	2.25	23.29	5.88	1.34	2.38
Rangpur	0.21	3.18	7.10	3.18	43.25	6.98	0.63	0.88	1.25	61.85	4.72	28.71	9.36	1.76	3.30
Thakurgaon	0.29	3.39	6.87	1.13	60.27	9.64	0.59	0.71	1.05	66.30	3.56	24.22	6.33	0.92	2.81
Habiganj	5.96	2.14	1.89	2.01	6.84	3.19	0.71	1.22	0.92	72.73	5.54	21.43	7.47	1.64	7.42
Moulvibazar	2.72	2.08	1.27	1.70	12.05	5.26	0.81	1.57	1.53	73.01	5.35	33.66	8.96	1.70	10.99
Sunamganj	16.41	7.74	2.09	1.13	3.35	1.13	0.42	0.38	0.96	63.46	3.01	15.99	2.64	0.67	2.93
Sylhet	4.58	1.80	1.30	1.57	4.65	4.47	1.32	1.93	3.75	79.86	6.73	37.53	12.55	5.16	22.20

12.4 Ownership of Household Asset by Sex of Head of Household

Ownership of household assets by sex of head of household has been presented in Table-12.4. It is interesting to note that ownership of all assets were found at higher percentage for male headed household than female headed household except sewing machine and fridge/deep fridge.

It is also notable that the difference of ownership of assets between the male headed and female headed household show similar pattern for both urban and rural area of the country.

12.5 Ownership of Household Asset by Literacy Level

Ownership of household assets by literacy level of household members in Table-12.5 shows very interesting features of household assets by literacy. The ownership of all assets are higher for literate household than illiterate household except for boat, Bullock cart/Buffalo Cart, Push Cart/Rickshaw/van & Rickshaw. These items are generally operated by illiterate household head or members.

Interestingly, ownership of telephone is almost five time higher for household with literate head than illiterate head. The ownership of computer is more than 10 times higher for household with literate head compared to household with illiterate head.

This pattern of ownership is true for the urban area as well as for the rural area of the country.

12.6 Ownership of Selected Asset by Level of Education

It is notable that ownership of assets have direct linkage with the level of education of household head (Table-12.6). The ownership of boat, bullock/buffalo cart push cart/rickshaw/van decreases with the increase of education level of head. Ownership of bicycle increase from no-education up to SSC/HSC level then it decreases for graduate, masters and above level of education. Ownership of motor cycle, motor car/bus/truck, scooter/CNG/auto rickshaw increases with the increase in the level of education of head except in case of scooter/CNG/auto rickshaw for graduate & HSC/SSC level where for these two group the ownership of scooter/CNG and auto rickshaw decreases up to some extent. Interestingly, ownership of land telephone increases rapidly with the increase of the level of education and this is also true for the mobile telephone. The ownership of electronic devices like television/radio/transistor, dish antenna computer & fridge/ deep fridge increases with the increase in the level of education of head. This is also true for the ownership of sewing machine. This is also true for the rural and urban area with a few exception in case of certain level.

Table-12.4: Distribution of Household by Assets by Sex of Head of Household

Division	Residence	Household Assets (% of household)														
		Boat	Bull/ Buffalo Cart	Push Cart/ Rickshaw/ Van	Rickshaw	Bicycle	Motorcycle	Motor car/ bus/ Truck	Scooter/ CNG/Auto Rickshaw	Telephone	Mobile	Sewing machine	Television/ Radio/Transistor	Dish Antenna	Computer	Freezer/ Deep freezer
Male Head	National	4.32	1.84	4.51	2.35	24.93	5.01	1.26	1.30	2.24	77.88	7.97	36.97	20.36	3.91	12.08
	Rural	5.13	2.15	4.88	2.23	27.04	4.39	0.61	1.20	0.87	75.47	6.18	29.82	11.86	1.46	6.03
	Urban	1.01	0.56	3.01	2.83	16.21	7.61	3.97	1.72	7.92	87.83	15.40	66.49	55.51	14.02	37.05
Female Head	Total	1.73	0.78	0.93	0.89	10.42	2.14	0.89	0.77	2.05	67.20	8.46	33.20	16.88	3.67	14.95
	Rural	2.01	0.86	0.96	0.81	10.70	1.59	0.39	0.62	0.93	64.56	6.76	27.18	9.41	1.58	9.59
	Urban	0.56	0.42	0.79	1.22	9.23	4.44	2.97	1.41	6.74	78.23	15.57	58.40	48.20	12.42	37.43

Table-12.5: Distribution of Household by Assets by Literacy Level of Head and Residence

Literacy Level of Head	Residence	Household Assets (% of household)														
		Boat	Bull/ Buffalo Cart	Push Cart/ Ricksha/ Van	Rickshaw	Bicycle	Motorcycle	Motor car/bus/ Truck	Scooter/ CNG/ Auto Rickshaw	Telephone	Mobile	Sewing machine	Television/ Radio/ Transistor	Dish Antenna	Computer	Fridge/Deep fridge
Illiterate	Total	4.76	1.90	5.47	2.88	20.86	1.89	0.39	1.01	0.75	66.50	4.35	22.97	9.49	0.72	3.36
	Rural	5.23	2.08	5.56	2.62	21.88	1.83	0.33	0.96	0.64	65.61	3.96	20.18	6.48	0.54	2.32
	Urban	1.39	0.68	4.80	4.71	13.65	2.30	0.77	1.33	1.52	72.85	7.10	42.79	30.84	2.00	10.76
Literate	Total	3.13	1.49	2.46	1.35	25.91	7.93	2.19	1.51	3.95	88.44	12.36	52.42	32.22	7.59	23.07
	Rural	4.06	1.88	2.76	1.27	29.62	7.22	0.94	1.37	1.21	86.35	9.51	42.80	18.80	2.81	12.37
	Urban	0.73	0.48	1.67	1.56	16.27	9.79	5.45	1.86	11.04	93.89	19.75	77.37	67.04	19.99	50.81

Table-12.6: Distribution of Household by Assets by Level of Education & Residence

Residence	Level of Education	Household Assets (% of household)														
		Boat	Bull/ Buffalo Cart	Push Cart/ Rickshaw/ Van	Rickshaw	Bicycle	Motorcycle	Motor car/bus/ Truck	Scooter/ CNG/ Auto Rickshaw	Telephone	Mobile	Sewing machine	Televisio/ Radio/ Transistor	Dish Antenna	Computer	Fridge/Deep fridge
Bangladesh	No Education	4.31	1.91	4.47	3.02	15.62	1.81	0.34	0.82	0.74	68.40	4.78	25.68	11.95	1.03	4.92
	Class I-V	4.82	1.81	4.48	2.43	21.81	2.70	0.63	1.25	1.00	72.82	5.83	28.85	12.91	1.17	5.98
	Class VI-IX	4.07	1.83	4.09	2.08	25.28	4.01	0.76	1.35	1.25	77.40	7.65	35.89	17.79	1.96	9.55
	SSC/HSC	3.24	1.50	3.52	1.84	25.75	7.11	1.35	1.20	2.63	81.20	10.48	45.28	27.52	5.60	19.03
	Graduate	2.09	1.24	3.45	1.49	23.55	11.62	4.39	1.06	8.77	85.94	15.09	57.92	43.24	16.70	37.41
	Masters and above	1.72	1.30	3.16	1.28	19.13	13.60	9.91	1.79	18.46	87.03	18.06	66.20	56.11	32.60	51.83
Rural	No Education	4.99	2.20	4.70	2.79	16.83	1.84	0.32	0.78	0.66	67.12	4.25	21.18	7.24	0.72	3.29
	Class I-V	5.40	1.98	4.53	2.24	22.68	2.55	0.52	1.15	0.76	71.53	5.20	25.24	8.78	0.84	4.20
	Class VI-IX	4.62	2.07	4.30	1.89	26.90	3.83	0.54	1.22	0.85	75.84	6.60	31.06	11.84	1.24	6.24
	SSC/HSC	4.01	1.85	4.04	1.79	28.66	6.44	0.72	1.16	0.94	78.11	7.83	36.03	16.01	2.38	10.02
	Graduate	3.20	1.69	4.74	1.62	30.65	10.36	1.07	0.92	1.72	80.07	8.98	40.15	20.27	4.93	15.78
	Masters and above	3.75	2.61	5.94	1.73	31.30	10.98	1.13	0.84	2.58	75.97	8.55	36.29	18.19	5.83	14.14
Urban	No Education	0.98	0.47	3.38	4.14	9.71	1.68	0.48	0.99	1.12	74.63	7.34	47.52	34.80	2.53	12.81
	Class I-V	1.12	0.69	4.18	3.59	16.29	3.71	1.33	1.92	2.58	81.00	9.90	51.83	39.23	3.31	17.33
	Class VI-IX	1.24	0.58	3.01	3.09	16.92	4.94	1.89	2.04	3.31	85.47	13.06	60.82	48.48	5.63	26.60
	SSC/HSC	0.92	0.44	1.95	1.98	16.95	9.15	3.26	1.30	7.72	90.56	18.50	73.28	62.37	15.34	46.30
	Graduate	0.46	0.57	1.54	1.29	13.11	13.48	9.28	1.26	19.14	94.57	24.07	84.04	77.02	34.01	69.23
	Masters and above	0.27	0.36	1.17	0.96	10.39	15.47	16,21	2.47	29.85	94.96	24.88	87.66	83.31	51.81	78.87

12.7 Ownership of Household Asset by Land Ownership Status

Household assets by land ownership status in Table-12.7 shows that there exists some differences in ownership of particular items in households with member owning land and female owning land.

Ownership of boat, push cart/rickshaw/ van are high for household with any member owning land than those with female member owning land. In case of owning of bullock/buffalo cart the difference is very negligible between the two groups. Interestingly, the ownership of bicycle was found higher in case of female member owning land. Ownership motor cycle was found higher for female member owning land. Owning of motor car/bus/truck was found at a higher percentage in for female member owning land. This is also true for ownership of scooter/CNG/auto rickshaw, lan telephone, mobile, television/radio/transistor, dish antenna, computer and freeze & deep freeze. This is also true in case of rural and urban households.

12.8 Ownership of Assets by Remittance Receiving and Non Receiving Household

There exist differences in the ownership of assets by remittance receiving and non receiving household (Table12.-8). It may noted that owning of boat, motor cycle, telephone, mobile, sewing machine, television/radio/transistor, dish antenna, computer & fridge/deep fridge were found at higher percentage for the remittance receiving households compared to remittance non-receiving households. On the other hand, ownership of bullock/buffalo cart, push cart/rickshaw/van, rickshaw and bicycle was found at a higher percentage for the remittance non-receiving households than remittance receiving households.

Similar differences between the remittance receiving and non-receiving households also exist in the rural and urban area of the country.

12.9 Ownership of Selected Assets by the Slum and Non-slum Household

Ownership of selected household assets by slum and non-slum households shows that there exists wide difference in the ownership of assets between the two groups. However, in case of some selected items which the slum household generally use for their livelihood and have access due to their existance in urban area are higher for them compared to non-slum groups. These items are rickshaw, scooter, television and dish antenna. In the aggregate level 3.70% households in the slum area have rickshaw as against 2.15% for the non-slum households. Scooter is owned by 1.23% slum dweller as against almost same 1.24% for the non-slum households. Television is owned by 39.11% slum households as against 36.47% non-slum households & dish antenna is owned by 26.94% slum households as against 19.82% for the non-slum households. In case of all others items the percentage of slum households are lower. But, interesting 71.28% slum household have mobile phone as against 76.6% for non-slum households. Fridge is reported to own by 5.26% slum households as against 12.55% for non-slum household. However, in the urban area, the ownership of such consumer durable are much lower for slum household then non-slum households.

Table-12.7: Household by Assets & Land Ownership Status

Land Ownership Status	Residence	Household Assets (% of household)														
		Boat	Bull/ Buffalo Cart	Push Cart/ Rickshaw/ Van	Rickshaw	Bicycle	Motorcycle	Motor car/bus/ Truck	Scooter/ CNG/Auto Rickshaw	Telephone	Mobile	Sewing machine	Television/ Radio/ Transistor	Dish Antenna	Computer	Fridge/Deep fridge
Any Member Owning Land	Bangladesh	4.42	1.88	4.11	2.04	25.15	4.98	1.22	1.25	2.24	77.14	7.90	35.32	18.00	3.69	11.84
	Rural	5.00	2.10	4.35	1.99	26.25	4.31	0.60	1.15	0.89	75.16	6.33	29.66	11.19	1.53	6.60
	Urban	1.19	0.66	2.76	2.33	19.03	8.71	4.67	1.86	9.76	88.10	16.62	66.68	55.75	15.67	40.93
Female Member Owning Land	Bangladesh	2.58	1.85	3.13	1.52	28.44	9.49	2.96	1.54	4.82	79.43	12.86	47.00	27.69	9.14	22.15
	Rural	3.15	2.16	3.39	1.39	30.91	8.35	0.95	1.17	1.26	75.47	9.20	37.07	14.94	3.02	10.60
	Urban	0.60	0.76	2.26	1.98	20.01	13.37	9.84	2.81	17.23	93.01	25.42	81.03	71.35	30.10	61.73

Table12.8: Household by Assets by Remittance Receiving and Non-Receiving Households

Remittance Received or Not	Residence	Household Assets (% of household)														
		Boat	Bull/ Buffalo Cart	Push Cart/ Rickshaw/ Van	Rickshaw	Bicycle	Motorcycle	Motor car/bus/ Truck	Scooter/ CNG/Auto Rickshaw	Telephone	Mobile	Sewing machine	Television/ Radio/ Transistor	Dish Antenna	Computer	Fridge/Deep fridge
Remittance Receiving Household	Bangladesh	4.70	1.62	2.30	1.54	18.24	4.80	1.47	1.22	3.17	87.92	10.15	48.18	23.54	5.76	22.10
	Rural	5.43	1.85	2.43	1.40	19.13	4.07	0.70	1.08	1.32	86.84	8.46	42.72	15.57	2.55	15.69
	Urban	1.37	0.53	1.75	2.16	14.14	8.15	5.05	1.88	11.71	92.90	17.93	73.27	60.20	20.56	51.60
Remittance Non Receiving Household	Bangladesh	3.91	1.73	4.33	2.26	23.87	4.65	1.18	1.24	2.09	75.02	7.74	34.89	19.45	3.62	11.08
	Rural	4.65	2.02	4.69	2.15	25.91	4.05	0.56	1.14	0.81	72.35	5.93	27.62	10.99	1.33	5.15
	Urban	0.90	0.55	2.87	2.70	15.53	7.11	3.70	1.66	7.29	85.90	15.10	64.55	53.94	12.98	35.27

Table-12.9: Household by Assets by Sex and Residence by Slum & Non Slum households

Households	Residence	Household assets (% of household)														
		Boat	Bullock cart	Push Cart	Rickshaw	Bicycle	Motorcycle	Motor Car	Scooter	Telephone	Mobile	Sewing Machine	Television	Dish Antenna	Computer	Fridge/ Deep fridge
Slum	Bangladesh	**1.10**	**0.62**	**3.89**	**3.70**	**8.24**	**1.42**	**0.32**	**1.23**	**0.98**	**71.28**	**5.78**	**39.11**	**26.94**	**1.04**	**5.26**
	Rural	**2.61**	**1.10**	**3.98**	**1.53**	**11.24**	**1.66**	**0.00**	**1.14**	**1.14**	**66.45**	**3.42**	**22.96**	**9.91**	**0.66**	**3.31**
	Urban	**0.18**	**0.32**	**3.83**	**5.01**	**6.43**	**1.28**	**0.52**	**1.29**	**0.87**	**74.19**	**7.21**	**48.86**	**37.23**	**1.27**	**6.44**
Non slum	Bangladesh	**4.06**	**1.73**	**4.09**	**2.15**	**23.44**	**4.72**	**1.23**	**1.24**	**2.24**	**76.69**	**8.07**	**36.47**	**19.82**	**3.93**	**12.55**
	Rural	**4.77**	**2.00**	**4.41**	**2.07**	**25.18**	**4.07**	**0.59**	**1.13**	**0.87**	**74.22**	**6.27**	**29.55**	**11.57**	**1.48**	**6.49**
	Urban	**1.00**	**0.56**	**2.68**	**2.50**	**15.90**	**7.57**	**4.04**	**1.70**	**8.18**	**87.41**	**15.90**	**66.50**	**55.65**	**14.56**	**38.88**

13. CONCLUSION AND RECOMMENDATIONS

Households' amenities and assets are important to measure the household environment and status. The basic amenities/facilities like drinking water, treated water for purification, distance to water source, type of toilet, solid waste management, use of cooking fuel, lighting facility and ownership of assets, access to print and electronic media are important to oversee the condition of household.

The findings from censues and sample censuses indicate that there exists wide variation in ownership and access to the households by geographical location and socio-economic groups. The poverty prone zilas have less household facilities compared to the zilas where the poverty is less. Some of the household facilities are related to geographic locations. The use of tube well water, though widely used in all zilas, use of river water and water from other source were also seen in some zilas where there exists salinity in the ground water and sinking of tube well is difficult such as Bandarban, Khagrachari and Rangamati. Use of solid fuel like wood are widely used in the zilas where there is availability of fire wood. Gas/LPG use in the zilas of northern and western areas of the country is very scanty as gas connection has not yet installed in these zilas. The sanitation system has improved over the years by the use of sanitary toilet but it has some relation with economic condition of the households. Access to print and electronic media are also related to socio-economic condition of the households. The socio-economic variables like sex of head, literacy and level of education of head, ownership of land and access to remittance have direct bearing on the access to household amenities and assets.

On the basis of the findings of the study the following recommendation can be made:

1) Government of Bangladesh can take necessary measures to provide necessary support to the areas where the sanitation system is still lagging behind compared to other areas.
2) As arsenic contamination has negative impact on health condition, the alternative source of water like preservation of rain water can be popularized in the areas where water source is contaminated by arsenic
3) As solid fuel contaminate the air, therefore access to gas/LPG should the extended to the areas where such fuel are not available
4) Solid waste can be a best source for natural fertilizer. Therefore, the rural people can be motivated to make best use of the solid waste
5) The use of boiled/bottled/filtered water can protect communicable diseases. Therefore, campaign can be initiated by the relevant departments to motivate people to use boiled/bottled/filtered water
6) The literacy and level of education has a very significant role in improving the household facilities. Therefore, the education for all need to be ensured for improvement of household amenities and assets.

Annex I

Estimated Number of Household at Bangladesh, Rural, Urban, Division and Zila Levels

Division/Zila	Households	Khulna Division	Households
Bangladesh		Total	3707047
		Rural	3114437
Total	31705684	Urban	592610
Rural	25535877	Zila	
Urban	6169807	Bagerhat	348200
Barisal Division		Chuadanga	275295
Total	1849355	Jessore	652878
Rural	1610041	Jhenaidah	417438
Urban	239315	Khulna	538801
Zila		Kushtia	474997
Barguna	214594	Magura	204293
Barisal	508586	Meherpur	165697
Bhola	370560	Narail	161961
Jhalokati	157231	Satkhira	467486
Patuakhali	343963	**Rajshahi Division**	
Pirojpur	254421	Total	4461097
Chittagong Division		Rural	3753726
Total	5552270	Urban	707371
Rural	4364888	Zila	
Urban	1187381	Bogra	862161
Zila		Joypurhat	241792
Bandarban	77566	Naogaon	653457
Brahmanbaria	536664	Natore	422040
Chandpur	501332	Chapai Nawabganj	353227
Chittagong	1502347	Rajshahi	630068
Comilla	1045924	Pabna	587664
Cox's bazar	410474	Sirajganj	710687
Feni	274198	**Rangpur Division**	
Khagrachhari	132172	Total	3794607
Lakshmipur	363496	Rural	3350279
Noakhali	581946	Urban	444328
Rangamati	126151	Zila	
Dhaka Division		Dinajpur	707906
Total	10578551	Gaibandha	610023
Rural	7801801	Kurugram	505627
Urban	2776749	Lalmonirhat	289470
Zila		Nilphamari	420555
Dhaka	2633512	Panchagarh	227694
Faridpur	417682	Rangpur	715270
Gazipur	808411	Thakurgaon	318063
Gopalganj	248424	**Sylhet Division**	
Jamalpur	561712	Total	1762758
Kishoreganj	622614	Rural	1540705

Madaripur	251057	Urban	222052
Manikganj	321583	Zila	
unshiganj	310146	Habiganj	389046
Mymensingh	1149136	Moulvibazar	353120
Narayanganj	618606	Sunamganj	436741
Narsingdi	472950	Sylhet	583850
Netrokonaq	477130		
Rajbari	236462		
Shariatpur	245816		

Annex II

Household Amenities by Wealth Index

Table-1: Main source of drinking water of household by Wealth Index

Wealth quintile	Water Source						
	Tap	Tube-well	Well	Pond	River/ditch /canal	Others	Total
Total	8.1	89.1	0.7	1.3	0.4	0.5	100.0
Poorest	0.1	92.8	2.4	2.3	1.2	1.2	100.0
Second	0.4	96.1	0.7	1.7	0.4	0.6	100.0
Middle	0.9	97.0	0.2	1.4	0.2	0.3	100.0
Fourth	3.7	95.1	0.1	0.8	0.1	0.2	100.0
Richest	35.5	64.1	0.1	0.2	0.0	0.1	100.0

Table-2: Household uses Boiled/Bottled/Filtered Water by Wealth Index

Wealth quintile	Boiled/Bottled/Filtered Water		
	Yes	No	Total
Total	7.8	92.2	100.0
Poorest	0.2	99.8	100.0
Second	1.0	99.0	100.0
Middle	1.6	98.4	100.0
Fourth	3.1	96.9	100.0
Richest	33.2	66.8	100.0

Table-3: Distance of Water Source from Households by Wealth Index

Wealth quintile	Distance to Water Source			
	Inside Dwelling	Within 200 Meters	Inside Dwelling	Total
Total	60.7	31.6	7.7	100.0
Poorest	38.2	43.9	17.9	100.0
Second	55.6	35.6	8.8	100.0
Middle	60.5	33.6	6.0	100.0
Fourth	67.8	28.5	3.7	100.0
Richest	82.0	16.3	1.7	100.0

Table-4: Toilet facilities of household by Wealth Index

Wealth quintile	Toilet Facility				
	Sanitary with Water Seal	Sanitary Without Water Seal	Non-Sanitary/ Kutcha	Open Space	Total
Total	27.8	33.8	31.4	7.0	100.0
Poorest	1.5	17.4	57.4	23.8	100.0
Second	18.0	36.4	39.1	6.5	100.0
Middle	19.9	41.4	35.4	3.3	100.0
Fourth	35.5	42.3	21.2	1.0	100.0
Richest	64.8	31.9	3.2	0.1	100.0

Table-5: Waste Management of Households by Wealth Index

Wealth quintile	Waste Management System				
	Managed Dustbin	Unmanaged Dump Site	Bury/Inside Pit	Burn	Total
Total	20.1	51.6	27.7	0.7	100.0
Poorest	6.7	62.5	29.7	1.1	100.0
Second	10.1	57.4	31.7	0.9	100.0
Middle	11.9	56.1	31.2	0.7	100.0
Fourth	17.1	52.3	30.0	0.5	100.0
Richest	54.9	29.3	15.6	0.2	100.0

Table-6: Lighting Facilities of Household by Wealth Index

Wealth quintile	Lighting Facility					
	Electricity	Solar Energy	Kerosene	Biogas	Other	Total
Total	56.6	3.3	39.5	0.1	0.5	100.0
Poorest	.2	0.5	98.6	0.2	0.5	100.0
Second	19.6	5.2	73.7	0.3	1.2	100.0
Middle	76.2	7.0	16.2	0.1	0.4	100.0
Fourth	90.2	3.2	6.3	0.0	0.2	100.0
Richest	99.0	0.7	0.3	0.0	0.0	100.0

Table-7: Fuel facilities of household by Wealth Index

Wealth quintile	Fuel Used for Cooking						
	Wood	Kerosene	Gas/LPG	Electricity	Straw/Dried Cow Dung	Bio-gas	Total
Total	34.8	1.0	12.6	0.4	51.2	0.1	100.0
Poorest	21.2	2.3	0.0	0.0	76.5	0.0	100.0
Second	34.0	1.3	0.0	0.1	64.6	0.0	100.0
Middle	40.9	0.5	0.2	0.3	58.0	0.0	100.0
Fourth	47.4	0.4	7.1	0.5	44.4	0.1	100.0
Richest	30.6	0.5	56.2	1.0	11.5	0.2	100.0

Table-8: Internet uses by Households by Wealth Index

Wealth quintile	Internet User (Number)									Total
	0.00	**1.00**	**2.00**	**3.00**	**4.00**	**5.00**	**6.00**	**7.00**	**8.00**	
Total	96.9	1.9	0.7	0.3	0.1	0.0	0.0	0.0	0.0	100.0
Poorest	99.8	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Second	99.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Middle	99.2	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Fourth	98.2	1.4	0.3	0.1	0.0	0.0	0.0	0.0	0.0	100.0
Richest	87.8	7.1	3.2	1.2	0.5	0.2	0.0	0 .0	0.0	100.0

Table-9: Reading of News Paper by Households by Wealth Index Quintile

Wealth quintile	Newspaper											
	0.00	**1.00**	**2.00**	**3.00**	**4.00**	**5.00**	**6.00**	**7.00**	**8.00**	**9.00**	**10.00**	**Total**
Total	55.3	31.1	8.5	2.8	1.4	0.5	0.2	0.1	0.0	0.0	0.0	100.0
Poorest	72.6	22.2	4.0	1.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Second	64.8	28.0	5.2	1.5	0.4	0.1	0.0	0.0	0.0	0.0	0.0	100.0
Middle	59.8	31.2	6.5	1.7	0.5	0.1	0.0	0.0	0.0	0.0	0.0	100.0
Fourth	50.0	36.5	9.1	2.9	1.0	0.3	0.1	0.1	0.0	0.0	0.0	100.0
Richest	28.9	38.0	17.7	7.2	4.7	2.2	0.8	0.3	0.2	0.1	0.0	100.0

Table-10: Have a computer by Households by Wealth Index

Wealth quintile	Computer		
	Yes	No	Total
Total	3.9	96.1	100.0
Poorest	0.0	100.0	100.0
Second	0.1	99.9	100.0
Middle	0.2	99.8	100.0
Fourth	1.8	98.2	100.0
Richest	17.3	82.7	100.0

Table-11: Uses of mobile by Households by Wealth Index Quintile

Wealth quintile	Mobile		
	Yes	No	Total
Total	76.6	23.4	100.0
Poorest	39.9	60.1	100.0
Second	71.9	28.1	100.0
Middle	84.8	15.2	100.0
Fourth	91.2	8.8	100.0
Richest	96.3	3.7	100.0

Annex III

Abbreviations

BBS	=	Bangladesh Bureau of Statistics.
BDHS	=	Bangladesh Demographic and Health Survey.
CNG	=	Compressed Natural Gas.
EU	=	European Union.
LPG	=	Liquefied Petroleum Gas.
PEC	=	Post Enumeration Cheek.
SVRS	=	Sample Vital Registration System.
SID	=	Statistics and Informatics Division.
UNFPA	=	United Nations Population Fund.

Annex IV

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Expert Panel for Population Monographs

Annex-III

Government of the People's Republic of Bangladesh
Bangladesh Bureau of Statistics
Population and Housing Census-2011 Project
Parishankhyan Bhaban
E-17/A, Agargaon, Dhaka-1207

No: 52.01.0000.401.29.315.15-347 Date: 12-05-2015

Subject: Selection of Expert Panel to Review Population Monographs

The following distinguished persons have been nominated as experts to review the Population Monographs being prepared under Population and housing census-2011 Project of Bangladesh Bureau of Statistics:

Expert Panel for Population Monographs

No	Broad Area	Monographs	Expert Pannel
01	Reproductive Behavior of Population	1. Population Composition: age and sex. 2. Fertility 3.Marriage& Family	Prof.M. Nurul Islam Ex. Professor ,DU Syeda Shahanara Huq, Prof.JNU Dr. Ahmed-Al-Sabbir,USAID Dr.Obidur Rob, Country Director, Population Council, Bangladesh
02	Special Protection Groups	1.Elderly Population 2.Disabled Population 3. Children and Youth 4. Population Density and Vulnerability	Dr.Nazma Ahmed Social Protection Specialist Dr.Sharifa Begum, SRF BIDS Prof. Mahmuda, Khatoon, DU Dr. A.j.Faisal Country Representative Engender Health Dr.Eshani Ruwan Pura Programme Specialist UNFPA
03	Household and Housing Characteristics, Education& Literacy	1.Housing Condition 2.Household Facilities 3.Education & Literacy	Prof. Kazi Saleh Ahmed Ex.VC JNU Mr. Abdur Rashid Sikder Former DDG ,BBS Dr. Anwara Begum SRF BIDS
04	Economic and Social Aspects of Population	1.Urbanization 2.Labour Force Participation 3.Characteristics of International Migrant Households 4. Population Distribution and Internal Migration	Mr.Nichole MALPAS, Programme Manager Human and Social Development, Delegation to the European Union to Bangladesh. Prof. Kazi Saleh Ahmed Ex.VC JNU Dr.Sarwar Jahan Prof. Department of URP,BUET Prof. Nurul Islam Najem Dept. of Geography, DU

Terms of Reference:

i) The members of the panel will remain present in the presentation of the monographs and will act as a co-opt member of the Technical Committee:
ii) They will review the draft of the Monographs;
iii) They will provide guidance in improving the draft;
iv) They will get financial benefit as per provision in the AWP of the Population and Housing Census-2011 Project.

12/5/2015
Mohammad Abdul Wazed
(Additional Secretary)
Director General

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