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Dept. of Urban Development and Building Construction
Urban Environment Improvement Project

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Socio Economic Profile & Urban Indicators of Bharatpur Municipality

Report Volume 3

June 2008



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GoN/Department of Urban Development and Building Construction
Urban Environment Improvement Project

Bharatpur Municipality
Bharatpur, Chitwan

Socio-Economic Profile & Urban Indicators of Bharatpur Municipality

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This document presents the outcome of household socio-economic census conducted during 2007 for the project “Preparation of Urban Base Maps and Supply of Computer Hardware for Bharatpur Municipality” undertaken by the Department of Urban Development and Building Construction/Urban Environment Improvement Project under Asian Development Bank’s “Loan No. 1966-NEP (SF)”. This document has been prepared by GENESIS Consultancy (P) Ltd. for DUDBC/UEIP. The opinions, findings and conclusions expressed herein are those of the authors/Consultant and do not necessarily reflect those of DUDBC/UEIP.

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Cover Illustration

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List of Acronyms/Abbreviation

ADB	Asian Development Bank
BCG	Bacillus Calmette-Guerin
BS	Bikram Sambat
CBO	Community Based Organization
CBS	Central Bureau of Statistics
DPT	Diphtheria, Pertussis, Tetanus Vaccine
DUDBC	Department of Urban Development and Building Construction
GIS	Geographical Information System
GoN	Government of Nepal
Ha.	Hectares
HHs	Households
HIV/AIDS	Human Accrued Immunity Syndrome
Km	Kilometer
LPG	Liquid Petroleum Gas
m	Meter
NGO	Non Governmental Organization
PCO	Project Coordinating Office
PIU	Project Implementation Unit
RCC	Reinforced Concrete Cement
UEIP	Urban Environment Improvement Project
VDC	Village Development Committee

Executive Summary

Household census survey was carried out in Bharatpur Municipality under the project "Preparation of Urban Base Maps and Supply of Computer Hardware for Bharatpur Municipality" undertaken by the Department of Urban Development and Building Construction/Urban Environment Improvement Project under Asian Development Bank's "Loan No. 1966-NEP (SF)". The survey has been carried out in conjunction with the development of urban base map and street and house addressing in the municipality.

Under the project, total of 20,244 buildings/houses were surveyed during field survey, 2007. Among these a total of 17,496 buildings were enumerated for household data generation. Of these 17,394 households are residential buildings/houses and 102 are non-residential buildings/houses. The total population in enumerated households are 86,208. The population density in the municipality is 1,107 per sq. km. Ward wise composition of population indicates highest population in ward 11 with total of 13810 population (16%) and ward 3 is the least populated ward with only 2185 (2.5%) of the total. The distribution of population by broad age group viz 0-14 years, 15-59 years and above 60 years old reveal about 26% of the total population falls under 0-14 years, 66.7% are under 15-59 years age group and 7.8% are of 60 years and above age group. These shows about 67% of the total population are economically active population in the municipality. The average dependency ratio is 50%. The sex ratio in the municipality is 953 females per 1000 males in average. The average household size is 4.93. The ethnicity and caste pattern of the municipality shows diversity with major ethnic groups as Brahmin, Chhetri, Newar, Gurung, Magar, Tamang, Kami and Damai.

The literacy rate of the population 5 years and above is 84.93% with literacy rate of females 79.24%, while that of males is 90.42% amongst their respective population proportions. The literacy rates among the children (5-15 years) are quite high in the municipality with about 98.8% literate. Among the adults about 81% are literate with considerably lower proportion of adult literate females to males (73.52% females and 88.08% males among their groups).

Among the children below 5 years, more than 86% are vaccinated against various diseases, such as BCG, DPT and measles.

The census survey shows that 60% of the total households dwell in RCC frame structure, 28% in cement masonry, 5.8% in mud masonry/wooden wall houses and remaining 4.9% with temporary construction. Of the total households in the municipality, 91.94% have land ownership, of which nearly all the households used land for agriculture use and residential purpose. However, about 8% households used land only for residential dwellings.

A vast majority of households in the municipality have electricity connectivity (96.3% households). Among the wards, ward 14, 1 and 13 have relatively lower proportion of households with electricity connectivity. The proportion of households with telephone connectivity is much lower in the entire municipality in comparison to the electricity connection. Only 44% of the total households have telephone connection.

Out of total houses in the municipality 12,664 houses lies within 20m of road. The household survey also shows that 72.4% of the households have access to roads within 20m and very negligible proportion of houses do not have any kinds of access to road (i. e. without access to path more than 2'6" wide)

Majority of the households use LPG gas (31.94%) followed by fuel wood and multiple energy sources (26.13% each).

Among the adult population of 61,626 (15 years and above), 52.8% are economically active and 47.02% are economically inactive. Among the inactive population majority are students and

remaining are unemployed adults. In productive work 20.64% population are engaged in service, followed by own economic enterprises/business 10.44%, agriculture 8.8%, household work 8.17%, wage labour 3.06% and others 1.23% respectively. Among the population engaged in household work 97.48% are females.

Larger proportion of households (48.23%) have average annual income between Rs. 1,00,000 to 5,00,000. Of the total 23.87% households have average annual income between Rs. 60,000 to 1,00,000 and Only 2.21% households have annual income up to Rs. 23,496 indicating these households are below the absolute poverty line. The mean monthly income in the municipality is Rs. 12,325. The ward wise distribution of income shows that ward 4 has the lowest median income (Rs. 5,500). Ward 10 and 3 have the higher mean and median monthly income (Rs. 16,009 and Rs.15,000) respectively. Households having average monthly expenditure of up to Rs 2,000 is about 3% of the total showing below absolute poverty line, indicating occurrences of impoverish households that can afford to spend the minimum subsistence amount only.

Among the households with water supply from different sources, majority (52.10%) use water from hand pump, 25% use water from dug wells, 3.17% use water from public stand post and about 3% use water from Kuwa/Khola. Majority of households (about 71%) approve of good quality water with more than 84% acknowledging of good quality piped water. The census survey indicates about 97.4% of the households has toilets. Wards 1, 8 and 11 have higher proportions of households without toilet indicating existence of poor sanitation conditions in these wards. Among the households with toilet facilities, all the households in ward 13 have toilet facility and majority households in the municipality have toilet out sides the house.

A significant proportion of households (27.8%) dispose waste water in open drain exhibiting non-existence of sewer connections in the most of the inhabited areas or insufficient service coverage in the municipality. Only few proportions of households have sewer connection, 4.7% dispose waste in their pit latrines.

The census survey indicated that majority of households (31.1%) collect and brunt solid wastes and 26% households kept on road side to be collected by municipality. Some significant proportion of households practised compost and burn, collected and buried and threw indiscriminately.

There is less involvement of people in community development activities organized by the municipality. Of the total, family members of only 7% households are affiliated in various community based organizations.

Basic Statistics

Demography	
Population	86,208
Households*	17,496
Population density	1,107 per sq.km
Avg. household size	4.93
Sex ratio	953.8 female to 1000 male
Economically active adult population	32,647 (52.98%)
Economically inactive population	28979 (47.02%)

Literacy	
Total literacy rate	84.93%
Child literacy rate	98.84%
Adult literacy rate	80.93%
Adult female literacy rate	73.52%
Adult male literacy rate	88.08%

Land Holdings & Dwellings (households)	
Land ownership	16082 (91.93%)
Agriculture & residential holdings	14,815 (92.12%)
Residential land holdings	1,267 (7.88%)
Owned dwellings	15,394 (88%)
Rented dwellings	2,090 (12%)

Accessibility & Access to Infrastructure (households)	
Road access (within 20m)	12,664 (72.4%)
Electricity	16,842 (96.3%)
Telephone	7,729 (44.2%)
Piped connection	4,809 (25.08%)
Toilet facility	17,047 (93.43%)
Sewerage connection	147 (0.84%)

Economy (household)	
Mean monthly income	Rs12,326
Median monthly income	Rs. 9,000
Mean monthly expenditure	Rs. 8,523
Median monthly expenditure	Rs. 7,500

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Section 1

INTRODUCTION

CHAPTER 1

BACKGROUND

1.1 The Project

Rural to urban migration is a critical issue faced by almost all the municipalities of Nepal. Urban population growth rate is as high as 7% per annum, which is roughly three times the average annual national population growth rate of 2.3%. As a consequence, most of the municipalities are facing rapid urban sprawl, resulting in a series of serious urban socio-economic and environmental issues including urban poverty, inadequate drinking water supply, unhygienic living conditions due to lack of proper sanitation and sewerage facilities, inadequate urban infrastructure and inefficient services, poor access to services, crime and host of other issues.

To address rapid urbanization trend and its socio-economic and environmental impact, the Government of Nepal with a financial assistance of the ADB is implementing Urban and Environmental improvement Project (UEIP) in nine surrounding towns of Kathmandu Valley. The project aims to facilitate sustainable urban development by addressing critical urban needs of environmental infrastructure improvement, poverty alleviation, decentralization of local authority and strengthening municipal institutional capabilities.

In order to achieve this, the UEIP has undertaken an initiative to facilitate the stakeholder municipalities with tools and information for sustainable urban development and management. The UEIP has also taken initiative to provide support for institutional capability and human resources development to use these. Digital urban base map and Municipal GIS are the first set of such tools that assist in effective urban planning, development and management. Besides this, the project has also conducted municipal wide household census in order to comprehend the current socio-economic and environment situation and to plan for the future. Socio-economic and population information collected along with urban base map and GIS would provide invaluable insight in the current pattern of socio-economic disparities and environment issues of these municipalities.

This report presents the outcome of household census conducted in Bharatpur Municipality under the project during 2007. The report presents the current scenarios of various social, demographic and economic aspects; water supply, sanitation and health aspects; household income and expenditure pattern; household and housing pattern as well as urban environmental infrastructure, access to community facilities, awareness to public health and other information.

1.2 Socio-Economic Profile and Urban Indicator

This report presents an overview of socio-economic and demographic pattern of Bharatpur Municipality. This report has been prepared based on data from household census conducted during 2007. The report presents the current scenarios of various social, demographic and economic aspects; water supply, sanitation and health aspects; household income and expenditure pattern; household and housing pattern as well as

urban environmental infrastructure, access to community facilities, awareness to public health and other information.

1.3 Outline of this Report

This report is presented in two sections containing nine chapters. The first section contains three chapters describing the project background, a brief description of the methodological approach adopted for conducting the household census and socio-economic information database of Bharatpur Municipality. Section two contains eight chapters presenting the demographic profile and urban indicators of Bharatpur Municipality.

Chapter 1 Introduction, this chapter describes the objective of this report and presents its outline.

Chapter 2 Socio-Economic Survey presents the approach methodology adopted for conducting household census. This chapter also discusses about the consistency and accuracy of collected household data.

Chapter 3-9 presents various socio-economic and demographic analysis results.

SOCIO-ECONOMIC SURVEY

2.1 General

Household census survey was undertaken to study the current socio-economic and demographic pattern of the municipality. The preparation of baseline data from household survey and institutional data exhibit a clear picture of the municipality on different dimensions focusing on social, economic, environment, migration, water supply situation, health & sanitation situation and status of municipality's management capability and other revenue – generating urban facilities. The baseline data will also enable to identify poverty pockets as well as under serviced areas for formulating and implementing intervention programs that address poverty and improved service delivery. Information collected on various indicators will also help monitor and assess the impact and benefit of the UEIP projects during implementation and after its completion.

The household census includes the followings:

- Collection and documentation of the demographic improvement (e.g. households, population, ethnic composition, sex, age, growth rate, literacy etc.)
- Assessing the existing water supply, sanitation and health situation of the project areas;
- Assessing the household income levels, expenditure patterns and willingness of the households to pay for improved water supply and sanitation services
- Assessing the self-sustainability of the municipality in terms of their revenue generation;
- Assessing the management capability of the municipality and the awareness of the community through community development programs

2.2 Methodology

2.2.1 Desk Study and Development of Semi-Structured Questionnaire

A team consisting of monitoring/evaluation specialist and socio-economist reviewed a number of relevant documents available. The major documents are PPTA reports, Procedures Manual for Project Performance Management System (PPMS) and various 2001 census documents.

The survey tool i.e. household survey questionnaire and institutional survey checklist were developed based on recommendations of the UEIP¹. The developed questionnaire and checklist was discussed with the Project Coordinating Office (PCO) and Project

¹ A sample questionnaire form was recommended in the Terms of Reference Document. This questionnaire was prepared based on identified performance indicators/targets for the Project Performance Management System. This questionnaire has been pretested and used for "Benchmark Survey" conducted by the project.

Implementation Unit (PIU) personnel and their comments and suggestions were incorporated before finalizing. Sample questionnaire is attached in *Appendix B*.

2.2.2 Orientation to Field Monitors and Enumerators

Prior to survey work field monitors and enumerators (locally hired) were given orientation training. The orientation contained the followings:

- Orientation of the project background and objectives
- Orientation on the contents of the questionnaire
- Orientation and hands on training on enumeration and filling the questionnaire
- Orientation on building public relation and conversation skill with the respondents
- Orientation on handling difficult/uneasy situations if such arises during the enumeration process

The field monitors are specifically trained to manage and monitor the team and log the progress status of each individual enumerator on everyday basis. The field enumerators assisted by data entry operators were deployed for entering the collected data. Therefore, the enumerators and monitors were also trained to enter the data into customized built database software.

2.2.3 Development of Urban Base Map

Large scale (1:2,500/1:5,000 scales) urban base map was prepared for conducting the household surveys. The base map has been prepared under the same project. The base map contained building footprints, road networks and other topographic features for identification of each individual building for enumeration purpose. Additionally road networks and location names in the base map provided geographical orientation. In conjunction with the base map, high resolution Quickbird satellite orthophoto image was also used during the enumeration process.

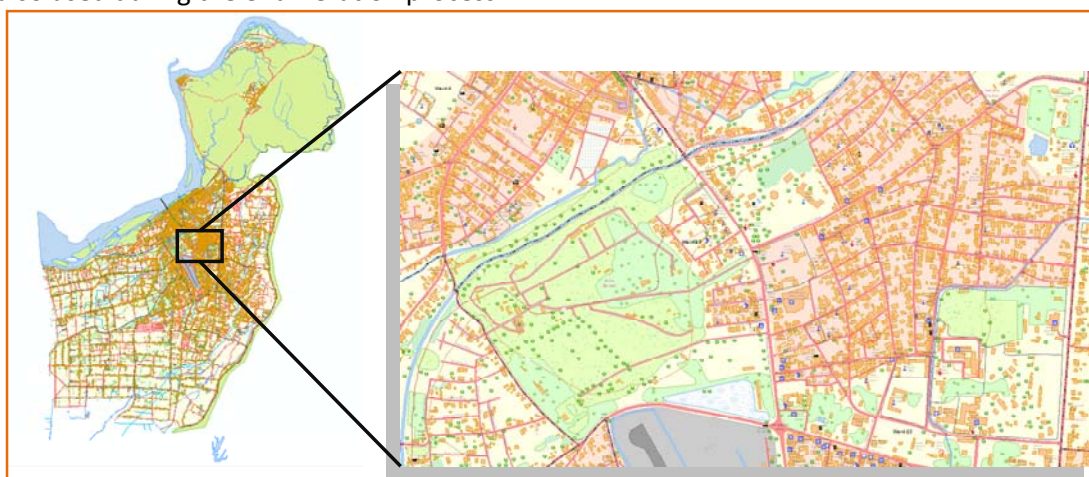


Figure 1 Urban base map of Bharatpur Municipality (1:2,500 scale)

Each enumeration team was facilitated with base map and satellite orthophoto map of the enumeration area. Each building were identified on the map/image, verified on the ground and enumerated.

2.2.4 Development of Street and House Addressing System

House numbering and street addressing was developed based on metric addressing system under this project. This addressing system enabled easy identification of buildings with reference to the given metric number and streets with designated names. The addressing and household enumeration was done consecutively. Buildings were given metric numbers based on measurement from the nearest access way origin. Building numbers were marked by the entrance or on the wall of each building. These buildings were later enumerated by the household survey team with uniquely given building number as the main identifier for each questionnaire.



Figure 2 Left Photo: Surveyors measuring metric distance for house numbering, Right Photo: Enumerator giving metric house number (temporary number)

2.2.5 Household Socio-Economic Enumeration

Survey teams consisting of two or four enumerators headed by supervisor were deployed in each ward. Based on the street names and building numbers, the survey team started enumerating from the first house along the street on both the odd and even sides. For instance, survey team with two enumerators surveys on both the odd and even sides along the road, starting from one end and progresses to the other end of the road till the end of the day. If the surveyed street is not completed in a day, the team continues from the next day. Teams consisting of four enumerators, the survey is done starting from both the ends of the street. Besides, socio-economic enumeration, the survey team also measured building floor area using measuring tapes and recorded separately.



Figure 3 Left Photo: Enumerator interviewing with respondent, Right Photo: Enumerators measuring building floor area

Socio-Economic Profile & Urban Indicators of Bharatpur Municipality

work is pre-planned on the base map/satellite image by the supervisor in every day basis. Daily progress is reported to the field coordinator. The enumerated questionnaires are re-checked in the field office and data entered into custom developed database system.

2.2.6 Household Census Data Management

Customized database management software was developed for entering the enumerated data. For each filled up questionnaire, the data was entered at the same day in the database system. The database was developed in MS-Access database system with relational database structure. Reports were generated in the Access as well as in SPSS and Excel software as required.

Family S. NO	Name of family members	Relationship to head	Gender	Age	Where was the baby born	Marital Status
1	Purna Singh Tamang	Head	Male	74	Home	Married
2	Suk Maya Tamang	Husband/Wife	Female	60	Home	Married
3	Girinda Tamang	Son	Male	34	Home	Married
4	Kamala Tamang	Daughter	Female	31	Home	Unmarried
5	Parupati Tamang	Daughter-in-law	Female	32	Home	Married
6	Haimaya Tamang	Grand son/daughter	Female	13	Hospital	Unmarried
7	Bisal Tamang	Grand son/daughter	Male	9	Hospital	Unmarried

Figure 4 Screenshot of data entry software interface

tblGeneral												
	House_code	Municipali	Street	Form	V	Street_Nam	House_No	Res_Name	Head_Nam			
	06-01903-156-01	Bharatpur	1903	17373	1	Devghat	156	Basu Dev Dhungana	Basu Dev Dhung			
	06-01903-159-00	Bharatpur	1903	17342	1	Devghat	159	Tej Prasad Upadhyay	Tej Prasad Upac			
	06-01903-172-00	Bharatpur	1903	17410	1	Devghat	172	Shiva Prasad Humagain	Shiva Prasad Hu			
	06-01903-187-00	Bharatpur	1903	17374	1	Devghat	187	Harekrishna Poudel	Harekrishna Pou			
	06-01903-193-00	Bharatpur	1903	17375	1	Devghat	193	Kamal Pariyar	Krishna Pariyar			
	06-01903-238-00	Bharatpur	1903	17339	1	Devghat	238	Dharm Bahadur Shrestha	Dharma Bahadu			
	06-01903-254-00	Bharatpur	1903	17372	1	Devghat	254	Maya Poudel	Jagnath Poudel			
	S	Fname	Reln	Gender	Age	Birthpl	MaritalSt	Level	College	Enrr	Occupatio	D
	2	Balkumari Poudel	Husbar	Female	45	Home	Married	Can read and write only	N/A	NO	Own econon	N
	3	Deepak Poudel	Son	Male	28	Home	Married	Intermediate	Government	NO	Own econon	N
	1	Jagnath Poudel	Head	Male	60	Home	Married	Can read and write only	N/A	NO	Own econon	N
	6	Kristina Poudel	Grand	Female	5	Hospital	Unmarried	Pre-Primary	Government	Yes	Student	N
	7	Kusal Poudel	Grand	Male	0.7	Hospital	Unmarried	NAP	NAP	NAP	NAP	N
	4	Maya Poudel	Daught	Female	25	Home	Married	Passed level	Government	NO	Own econon	N
	8	Nisha Poudel	Grand	Female	0.7	Hospital	Unmarried	NAP	NAP	NAP	NAP	N
	5	Susil Poudel	Son	Male	25	Home	Unmarried	SLC passed	Government	N/A	Own econon	N
	*											
	06-01903-267-00	Bharatpur	1903	17371	1	Devghat	267	Babu Ram Tiwari	Babu Ram Tiwar			
	06-01903-284-00	Bharatpur	1903	17274	1	Devghat	284	Kesar Bahadur Lama	Kesar Bahadur L			
	06-01903-287-00	Bharatpur	1903	17427	1	Devghat	287	Janaki Neupane	Govinda Lama			
	06-01903-291-00	Bharatpur	1903	17330	1	Devghat	291	Veshkanta Dawadi	Veshkanta Daw			
	06-01903-296-00	Bharatpur	1903	17428	1	Devghat	296	Dhan Bahadur Bhujel	Dhan Bahadur B			
	06-01903-83-00	Bharatpur	1903	17454	1	Devghat	83	Jhalak Poudel	Jhalak Poudel			
	06-01905-16/10-00	Bharatpur	1905	17395	1	Devghat	16/10	Ratuli Devi Thana	Ratuli Devi Than			

Figure 5 Relational database of household and family details in MS-Access

2.2.7 Data Analysis and Reporting

The data was analyzed for each various indicators and parameters such as population, poverty, literacy, morbidity & mortality, migration, revenue generation, water supply and sewerage connections, urban infrastructure and urban community/revenue generation facilities and others and presented in tabular and graphical formats. Wards wise analysis was done and also shown in thematic map form. The analysis was done using MS-Access, SPSS as well as MS-Excel for charting and graphics. Ward-wise socio-economic and demographic thematic maps were prepared in ArcGIS.

The analysis result is presented in section two of this document.

2.3 Household Enumeration

Census survey was conducted with an objective to cover all the households and institutions in the municipality. However, during the field enumeration, certain types of buildings/households were not/could not be enumerated. Such household included:

- Households with temporary resident domiciliating in the municipality for less than six months
- Buildings/households without occupant/respondent (locked or abandoned buildings)
- Building/households unwilling to provide information
- Resident quarters of various organizations,

As a result of this, the total number of household and population headcount has shown some variances with respect to the estimated projection¹ of 27,864 households and 124,934 populations for the year 2008. In order to portray the actual present population of the municipality, additional data have been collected from various organizations and industries related to the households/families and total population residing in the housing quarters of these institutions.

2.4 Census Data Summary and Consistency

Total of 20,245 buildings/houses, 17379 residential buildings and 1,440 non-residential buildings are identified for enumeration. Of these, 17,496 households are enumerated from 17394 residential and 102 from non-residential buildings/houses. Of the remaining non-enumerated buildings/houses 1,525 are residential, 51 are vacant, 195 are under construction, 17 are ruined, 10 are with under aged respondents and 4 others. For the remaining 1,065 non-enumerated residential buildings/houses, household data could not be collected in the duration of field survey time due to non-availability of respondents and refused to provide information. Remaining 183 houses have been found secondary/buildings/houses (i. e. annexes to the main buildings).

¹ Municipality Profile of Nepal-2008, Intensive Study and Research Center, 2008

The following table presents the summary of household census data and its consistency.

Table 1 Summary of enumerated buildings for household census

S.N.	Descriptions	Number of Buildings
1	Number of buildings identified	20,245
2	Number of buildings with household data	17,379
3	Number of residential building	18,805
4	Number of residential building enumerated	17,280
5	Number of residential building not enumerated	1,525
5.1	Number of building without respondent	1,012
5.2	Number of building refused to enumerated	53
5.3	Number of vacant buildings	51
5.4	Number of buildings under construction	195
5.5	Number of buildings with under aged respondent only	10
5.6	Number of annex buildings	183
5.7	Number of ruined building	17
5.8	Others	4
6	Number of non-residential buildings	1,440
7	Number of enumerated non-residential buildings	99

Table 2 Household status in Bharatpur

S.N.	Description	No. of household
	Number of household enumerated	17,496
	Household in enumerated in residential building	17,394
	Household in non-residential enumerated building	102

Table 3 Household and population residing in institutional quarters

Institution Quarter	Household
Post office	2
Bank/Finance	17
Resturants	34
Hotel/Lodge/Gust house	42
Other commercial buildings	310
Petrol pump/Service station	13
Printing press	4
Factory	151
Diary	7
Telephone office	1
Electricity office	1
Schools	85
Collage	35
GO/NGO/INGO	113

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Urban Indicators of Bharatpur Municipality

Water supply office	1
Hospital	20
Health post	1
Clinic/Pathology/Labs	17
Pharmacy	23
Police station	3
Army barrack	1
Cinema hall	4
Museum/Library	3
Temple	84
Church	9
Mosques	2
Monasry	8
Livestock/Cowshed/Buffalo shed/Pig farm	838
Poultry/Bee farm/Fish hatchery	299
Quarter	4
FM station	4
Fire station	1
Traffic police station	1
Airport terminal building	1
Bus terminal	1
Power station	1
Stadium/Coverd hall	1
Residential/Commercial organization	107
Warehouse/Store/Godam	18
Residential building/House	18,805
Others	168
Total	21239

Section 2

SOCIO-ECONOMIC PROFILE & URBAN INDICATORS

CHAPTER 3

POPULATION PATTERN & CHARACTERISTICS

Bharatpur municipality is located in Chitwan district. Due to the prevalence of malaria in the inner Terai valleys of Chitwan in the past, it was covered by dense forest with sparse and scattered population mostly inhabited by the malaria immune tharus.

The population census of 1954 recorded a total population of 91 persons only, despite of the fact that Bharatpur was district headquarter of Chitwan. After the launching of the malaria eradication program in Chitwan for the first time, many people started to migrate from different part of the adjoining and other districts which witnessed a rapid growth of population in Bharatpur. Again the declaration of Bharatpur as municipality in 1978, there has been rapid growth of population. In between 1981 and 1991, the population increased from 27,602 to 54,670 persons with increase of 27,068 persons or almost doubled with an annual growth rate of 7.07. The population in 2001 went up to 89,323 with an absolute increase of 34,653 persons with annual growth rate of 5.03. The migration of population from different parts are due to malaria eradication program with establishment of market in Narayanghat along the river bank of the Narayani river as well as establishment of government offices, schools, colleges, hospitals and other organization. The increase in population in various census periods in Bharatpur is presented in following table.

Table 4: Population growth (1954-2001 AD)

Year	Population	Change	% Change	Annual Growth Rate (%) ¹
1954	91			
1961				
1971	16,194			
1981	27,602	11,408	70.4	5.48
1991	54,670	27,068	98.1	7.07
2001	89,323	34,653	63.4	5.03

Source: CBS Population Censuses 1952/54-2001

¹ Exponential growth rate method; i.e. pop.growth rate(%) = $\left[\text{invlog} \left\{ \frac{\log(R) - \log(P)}{\text{year interval}} \right\} - 1 \right] \times 100\%$; where invlog is inverse log of base-10, log is base Log₁₀, R is the population of the previous year and P is the population of the current year and year interval is the interval between R and P

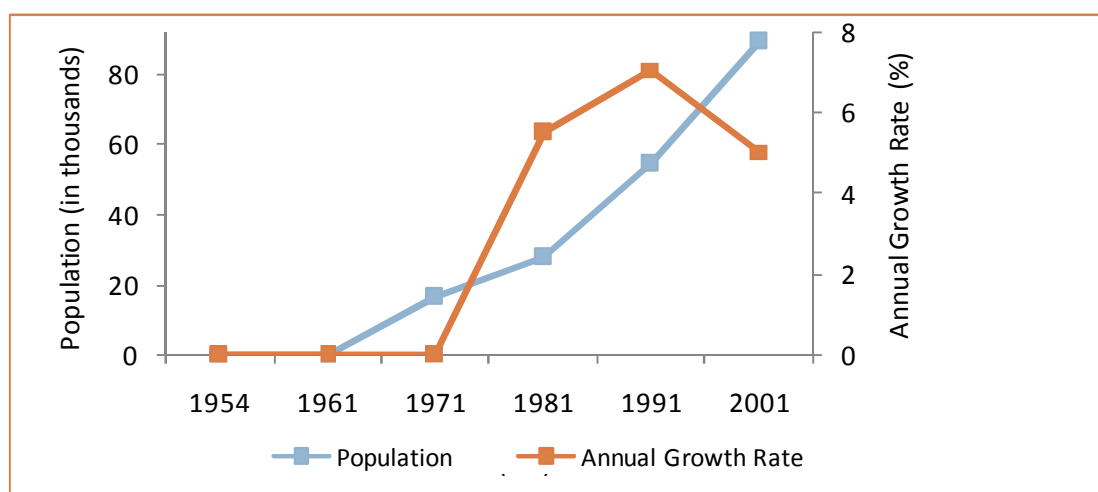


Figure 6 Population and growth rate in Bharatpur Municipality (1954-2001 AD) [Source: CBS Population Censuses 1952/54-2001]

According to census 2001, the total population of Bharatpur Municipality is 89,323 and the municipality ranked as the 7th largest urban center of the country. The population accounts for 19% of the total population of Chitwan district as against its share of 7.31% of the land area of Chitwan district.

3.1 Population Distribution

According to the household census 2007, number of households in Bharatpur Municipality is 17,496 and the total population is 86,208 with an average household size of 4.93. The population density is 1,107 persons per sq. km. Ward wise distribution of population indicates highest population in ward 11 with 13,810 (16% of the total) followed by ward 10 with 10,521 (12.2% of the total); ward 2 with 8,251 (9.6%

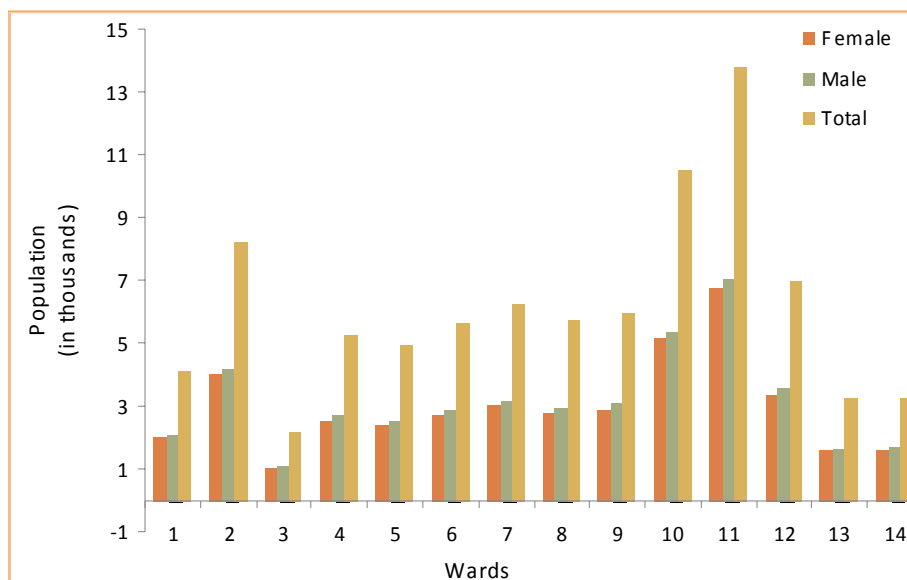


Figure 7: Population distribution by wards

of the total) and ward 12 with 6,977 (8.1% of the total) respectively. Wards 13 and 14 are the least populated wards with only 3,286 and 3,287 (3.8% of the total). Wards 11, 10, 2, 12 and 7 comprise more than half of the total population and are core market area.

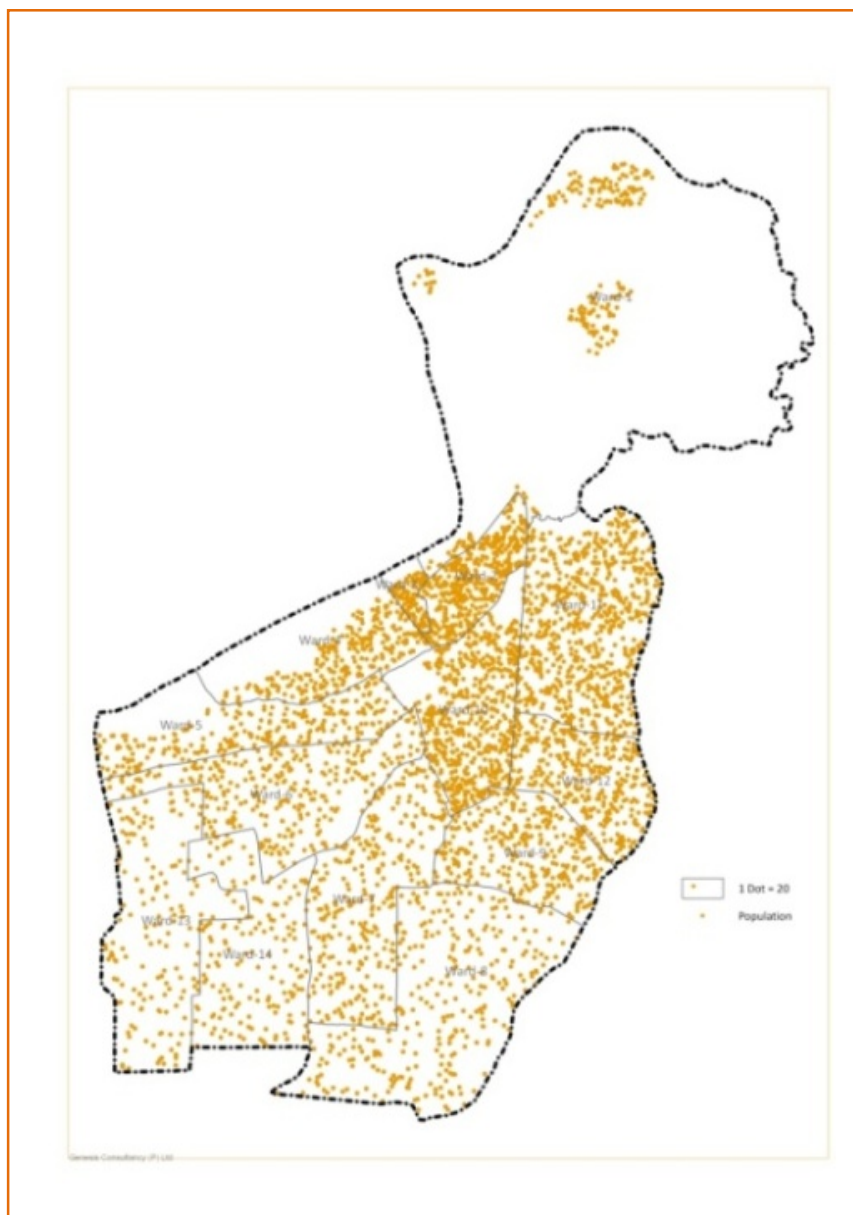


Figure 8 Spatial distribution of population

3.2 Population Density

Population density is an effective indicator to measure the pressure of population on land. The average population density of Bharatpur Municipality is 1,107 populations per sq.km. The municipality ranks among the 6th densely populated urban areas in the country. Ward 2 is the most densely populated ward with 4,678 population per/sq.km, followed by wards 3, 10, 12, 11, 9, 4, 5 and 7. Wards 1, 13, 14 and 8 are the wards with population densities less than 1000 per sq.km.

Table 5 Population density by wards

Wards	Population	Population %	Area (sq.km)	% Acreage	Pop. Density (per sq.km)
1	4,112	4.77	23.168	29.74	177
2	8,251	9.57	1.764	2.26	4678
3	2,185	2.53	0.469	0.60	4661
4	5,247	6.09	3.985	5.12	1317
5	4,948	5.74	4.028	5.17	1228
6	5,635	6.54	4.814	6.18	1171
7	6,219	7.21	5.206	6.68	1195
8	5,753	6.67	8.031	10.31	716
9	5,977	6.93	3.398	4.36	1759
10	10,521	12.2	3.936	5.05	2673
11	13,810	16.02	5.895	7.57	2343
12	6,977	8.09	2.957	3.80	2360
13	3,286	3.81	5.643	7.24	582
14	3,287	3.81	4.598	5.90	715
Total	86,208	100	77.891	100	1107

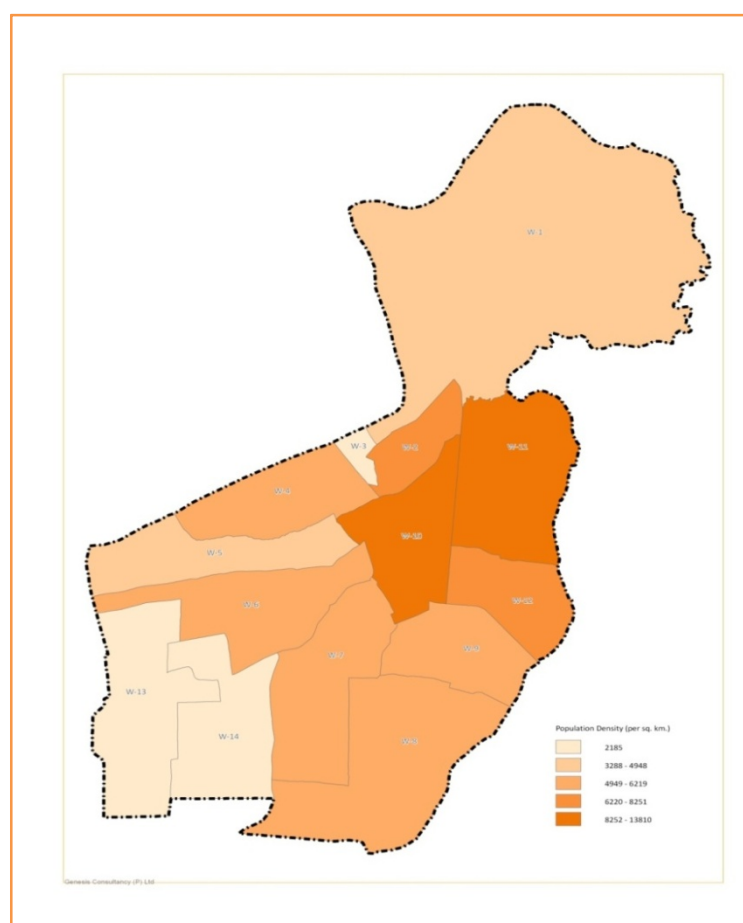


Figure 9 Quantile distribution of population density

3.3 Population Composition

The universality of predominance of male population over female population in the urban areas of the world exists in Bharatpur Municipality as well. The sex ratio in Bharatpur Municipality is 953 females per 1000 males in average. Wards 13, 7, 11 and 1 have higher sex ratio i.e. highest number of females per 1000 males while wards 9, 4, 12, 8 and 6 have lower sex ratio. The population composition shows that the percentage of female population is slightly lower in all the wards with the average composition of 51.2% males to 48.8% females.

Ward wise composition of population indicates highest population in ward 11 with total of 13810 population (16.0%), followed by ward 10 with 10521 (12.2%), ward 2 with 8251 (9.6%) and ward 12 with 6977 (8.09%). Ward 3 is the least populated ward with only 2185 (2.5%) population.

Table 6 Population composition and sex ration by wards

Ward	Female No.	Female %	Male No.	Male %	Total	%	Sex Ratio*
1	2015	49.0	2097	51.0	4112	4.8	960.9
2	4040	49.0	4211	51.0	8251	9.6	959.4
3	1068	48.9	1117	51.1	2185	2.5	956.1
4	2537	48.4	2710	51.6	5247	6.1	936.2
5	2408	48.7	2540	51.3	4948	5.7	948
6	2746	48.7	2889	51.3	5635	6.5	950.5
7	3060	49.2	3159	50.8	6219	7.2	968.7
8	2799	48.7	2954	51.3	5753	6.7	947.5
9	2872	48.1	3105	51.9	5977	6.9	925
10	5148	48.9	5373	51.1	10521	12.2	958.1
11	6778	49.1	7032	50.9	13810	16.0	963.9
12	3392	48.6	3585	51.4	6977	8.1	946.2
13	1620	49.3	1666	50.7	3286	3.8	972.4
14	1602	48.7	1685	51.3	3287	3.8	950.7
Total	42085	48.8	44123	51.2	86208	100.0	953.8

Note: No. of females to 1000 males

3.4 Population Composition by Age and Sex

The distribution of population by broad age groups viz. 0-14 years (children), 15-59 years (economically active) and above 60 years (old) reveal about 26% of the total population falls under 0-14 years, 66.7% are under 15-59 years age group and 7.8% are of 60 years and above age group. These figures shows about 67% of the total population are economically active population in the municipality. The average dependency ratio is 50% in the municipality. Detail distribution of population by age and sex is presented in Appendix A.

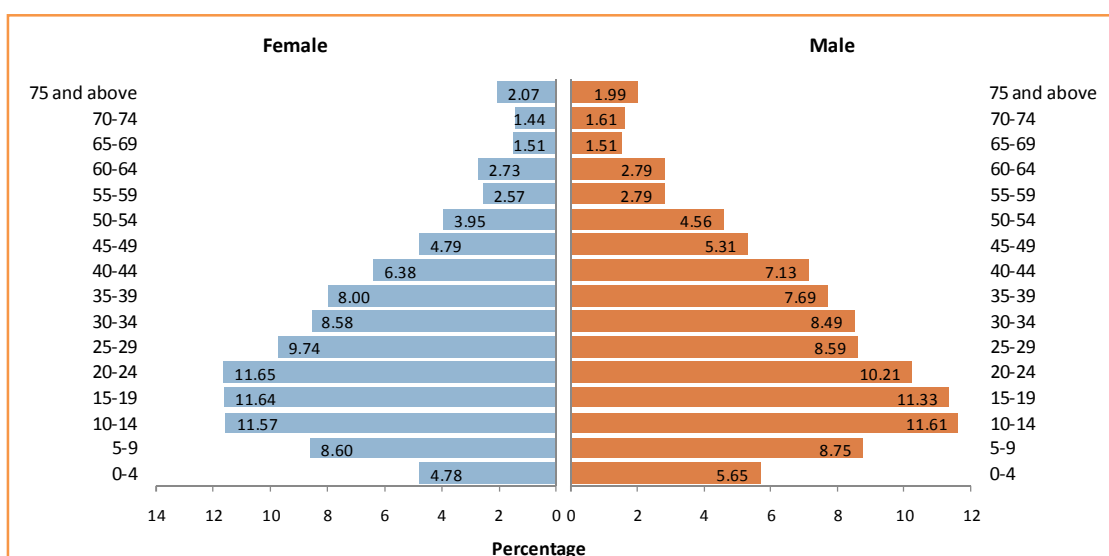


Figure 10 Population pyramid

Table 7: Composition of population by broad age group

Ward	0-14		15-59		above 59		Dependency Ratio ¹
	No.	%	No.	%	No.	%	
1	1111	27	2559	62.2	442	10.7	37.76
2	2082	25.2	5563	67.4	606	7.3	48.3
3	536	24.5	1481	67.8	168	7.7	47.5
4	1268	24.2	3631	69.2	348	6.6	44.5
5	1248	25.2	3306	66.8	394	8	48.7
6	1416	25.1	3712	65.9	507	9	51.8
7	1518	24.4	4244	68.2	457	7.3	46.5
8	1554	27	3693	64.2	506	8.8	55.8
9	1593	26.7	3963	66.3	421	7	50.8
10	2310	22	7284	69.2	927	8.8	33
11	3943	28.6	8983	65	884	6.4	44.8
12	1700	24.4	4756	68.2	521	7.5	46.7
13	831	25.3	2173	66.1	282	8.6	51.2
14	867	26.4	2137	65	283	8.6	53.8
Total	21977	25.5	57485	66.7	6746	7.8	50

¹ Dependency ratio (%) = (population below 15+population above 59)/population in 15-59 age group*100

3.5 Population by Ethnicity and Caste

The ethnicity and caste pattern of Bharatpur Municipality shows diversity with major ethnic groups as Brahmin, Chhetri, Newar, Gurung, Magar Tamang, Kami and Damai. Of the total population, Brahmin comprises of 48.08%, Chhetri with 11.85%, Newars with 10.16%, Gurung with 6.74%, Magar with 4.32% Tamang with 4.10%, Kami with 2.93% and Damai with 1.85%. The remaining proportion consists of various ethnic and caste groups including very small proportions of Thakuri, Tharu, Darai, Muslim and Rai. The distribution of ethnicity and caste is presented in Appendix A.

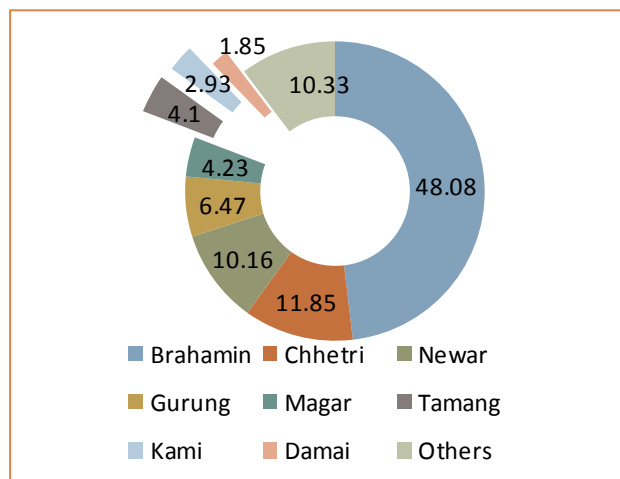


Figure 11 Composition of households by caste/ethnicity

3.6 Disabled Population

Among the population, 128 are disabled population accounting for about 0.15% of the total population. Among disabled population 86 are physically disabled (67.2%), 19 are mentally retarded (14.84%), 14 are deaf (10.93%), 8 are blind (6.25%) and 1 is multiple disabled in the municipality.

Table 8: Physically disabled population

Disability	Female		Male		Total	
	No.	%	No.	%	No.	%
Blindness	3	37.5	5	62.5	8	6.25
Deafness	5	35.71	9	64.29	14	10.93
Mentally Retarded	8	42.10	11	57.9	19	14.84
Physical Disability	38	44.20	48	55.8	86	67.2
Multiple Disability	0	0.0	1	100	1	0.78
Total	54	42.19	74	57.81	128	100.0

3.7 Population by Marital Status

Among the population more than half of the population (51.1%) are married and nearly half (46.5%) are unmarried, 2.4% are widow and negligible proportion (0.03%) are divorced. Among the females, 54.6% are married; while among the males 49.7% are married. Among the married population, 8 are found to be below 15 years of age, indicating incidence of child marriage. About 1% in the age group 15-19, 7.7% in 20-24 years age group, 12.8% in 25-29 age years group, 14% in 30-34 years age group and 65% are in 35 and above age

group. The data also indicates larger number of married females in comparison of males under the same age group, indicating prevalence of early marriage in females in comparison to males, which is a common social practice in the Nepalese society.

Table 9 Population by marital status

Marital Status	Female		Male		Total	
	No.	%	No.	%	No.	%
Married	22118	52.55	21956	49.76	44074	51.1
Unmarried	17969	42.7	22079	50.04	40048	46.5
Widow	1970	4.68	69	0.16	2039	2.4
Divorced	25	0.06	1	0.002	26	0.03
NA	3	0.01	18	0.04	21	0.02
Total	42085	100.0	44123	100.0	86208	100.0

3.8 Household Size

The total households in the municipality are 17,496 with an average household size of 4.93 persons. Ward 3 and 13 have highest household size with 5.36 and 5.25 persons per household and wards 1 has the lowest household size accounting 4.4 persons per household. However, ward 11 has the highest number of households accounting 2,894 households and ward 3 has the lowest number of households with only 408.

Table 10 Household and average household size by wards

Ward	No. of Household	Household %	Avg. Household Size
1	935	5.34	4.4
2	1636	9.35	5.04
3	408	2.33	5.36
4	1088	6.22	4.82
5	1039	5.94	4.8
6	1071	6.12	4.98
7	1289	7.37	4.82
8	1148	6.57	5.0
9	1180	6.74	5.07
10	2126	12.15	4.95
11	2894	16.55	4.77
12	1437	8.22	4.86
13	626	3.58	5.25
14	619	3.48	5.31
Total	17496	100.0	4.93

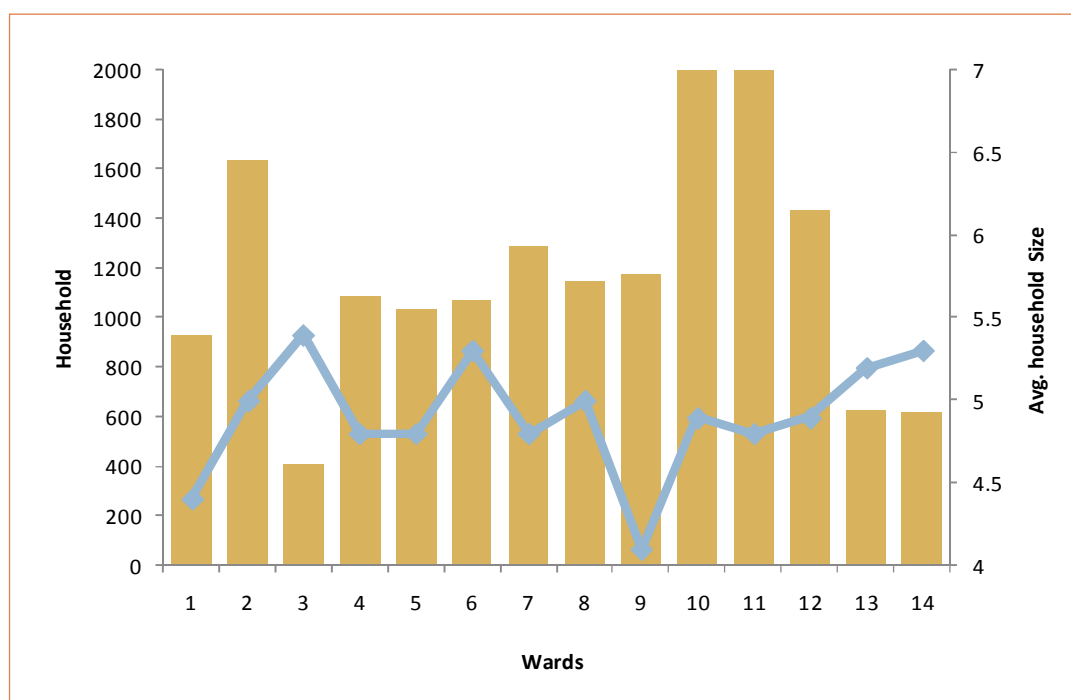


Figure 12 Household and average household sizes

The distribution of households by average family size indicates 39% households with 2-4 family members, 37% households with 4-6 members, 10% households with 6-8 family members, 8 % households with 1-2 members and 4% with 8-10 family members. About 2% households have more than 10 family members as well. The ward wise distribution of household with family members is presented in Appendix A.

Table 11 Households by average family size

Family Size	Households	
	No.	%
1-2	1361	8.0
2-4	6819	39.0
4-6	6556	37.0
6-8	1783	10.0
8-10	664	4.0
Above 10	313	2.0
Total	17496	100.0

3.9 Household Head by Sex

Out of the total households, 15,468 (88.4%) are headed by male and 2,028 (11.6%) are headed by female.

Table 12 Household head by sex

Sex	Households No.	Household %
Female	2028	11.6
Male	15468	88.4
Total	17496	100.0

3.10 Migration

The population in Bharatpur increased tremendously after the launching of the malaria eradication program and with establishment of market settlement of government offices, schools, collages, hospitals, and residential quarters. The population of the municipality increased from 91 in 1954 to 16194 in 1971 with 177 times increase within a period of 17 years. The census shows that the migration from other parts of the country was relatively high in compare to migration from the same district and from foreign country. The migration trend significantly increased after the declaration of Bharatpur as municipality with larger proportions of migrant population from within the same district, significantly from the surrounding VDCs. Migration from foreign countries significantly from India as well as from Burma is also seen.

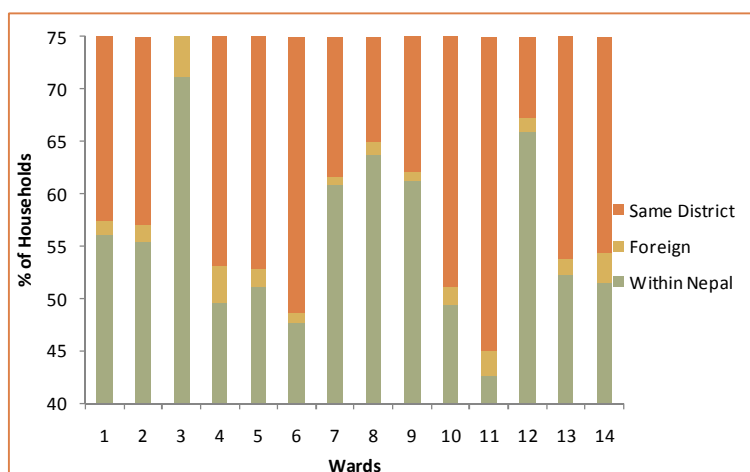


Figure 13 Migration patterns (household)

According to the census survey, 98.9% households of the total households in the municipality are migrated households from different parts of the country and foreign as well. Of the total migrated households, 53.8% of the total households migrated from within Nepal especially from surrounding districts of Nepal (Nawalparsi, Kaski, Syngjya, Chitwan, Gorkha, Tanahu and the other districts of western and eastern Nepal), 44.3% of the total households migrated from the surrounding VDCs of the same district and 1.9% households are from foreign country especially from India.

The following table shows the pattern of migrant household from different places.

Table 13 Migration to Bharatpur

Wards	Same District		Within Nepal		Foreign		Total		Total HHs
	No.	%	No.	%	No.	%	No.	%	
1	391	42.6	514	56.1	12	1.3	917	98.1	935
2	693	42.9	894	55.3	29	1.8	1616	98.8	1636
3	82	20.2	289	71.2	35	8.6	406	99.5	408
4	507	46.9	536	49.6	38	3.5	1081	99.4	1088
5	486	47.3	524	51.0	18	1.8	1028	98.9	1039
6	540	51.4	500	47.6	11	1.0	1051	98.1	1071
7	492	38.3	781	60.8	12	0.9	1285	99.7	1289
8	392	35.1	711	63.7	14	1.3	1117	97.3	1148
9	447	37.9	722	61.3	9	0.8	1178	99.8	1180
10	1035	49.0	1044	49.3	37	1.8	2113	99.4	2126
11	1572	54.8	1223	42.6	73	2.5	2868	99.1	2894
12	462	32.7	933	65.9	20	1.4	1415	98.5	1437
13	286	46.2	323	52.2	10	1.6	619	98.9	626
14	278	45.7	313	51.5	17	2.8	608	98.2	619
Total	7663	44.3	9304	53.8	335	1.9	17302	98.9	17496

[Note: Data not available for 416 households.]

CHAPTER 4

LITERACY & EDUCATION

4.1 Literacy Status

The literacy rate of the population above 5 years is 84.93% and the municipality ranks in the 8th position among the municipalities¹ in terms of literacy rate. The literacy is characterized by higher proportion of literate males than females. The literacy rate of females is 79.24% (including both literate (3.73%) and formal education (75.51%)), while that of males is 90.42% (literate (2.50%) and formal education (87.91%)) amongst their respective population proportions. Thus it is obvious that the proportion of illiterate female is also higher in comparison to males i.e. about 20.49% females and 9.33% males.

Table 14 Literacy status in the municipality

Literacy Status	Female		Male		Total	
	No.	%	No.	%	No.	%
Literate	1497	3.73	1042	2.5	2539	3.11
Illiterate	8212	20.49	3886	9.33	12098	14.81
Formal Education	30265	75.51	36600	87.91	67078	81.82
NA*	102		103		205	
NAP*	7		1		8	
Total	40083	79.24	41632	90.42	81715	84.93

[Note * NA & NAP are not included in total]

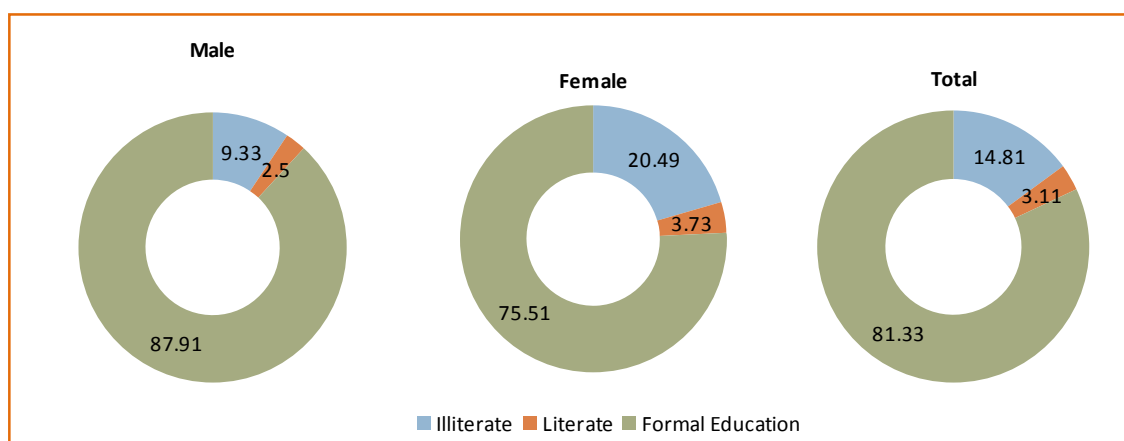


Figure 14 Literacy status by sex

About 81.82% population are formally educated. Of this proportion, about 75.51% are females and 87.91% are males.

¹ Municipality Profile of Nepal-2008, Intensive Study and Research Center, 2008

4.2 Education Levels

The level of education of the literate population indicates that higher proportions of females are in primary level (24.05%), SLC passed (21.17%) intermediate (14.86%) secondary level (14.37%) and lower secondary level (11.42%). The proportion of females in other levels i. e. Bachelor and above is low. Only 7.91% and 1.48% female literates have attained Bachelors and Masters level education. The proportion of males in Bachelors and Masters levels are 13.16% and 4.63% respectively.

Table 15 Education levels of literate population by sex

Level	Female		Male		Total	
	No	%	No	%	No	%
Literate only	1497	4.71	1042	2.77	2539	3.66
Primary	7640	24.05	7641	20.30	15281	22.02
Lower Secondary	3627	11.42	3570	9.48	7197	10.37
Secondary	4563	14.37	4646	12.34	9209	13.27
SLC passed	6723	21.17	7955	21.13	14678	21.15
Intermediate	4720	14.86	6031	16.02	10751	15.46
Bachelor	2513	7.91	4953	13.16	7466	10.76
Master	471	1.48	1742	4.63	2213	3.19
Above master	8	0.03	62	0.16	70	0.10
Total	31762	100.0	37642	100.0	69404	100.0

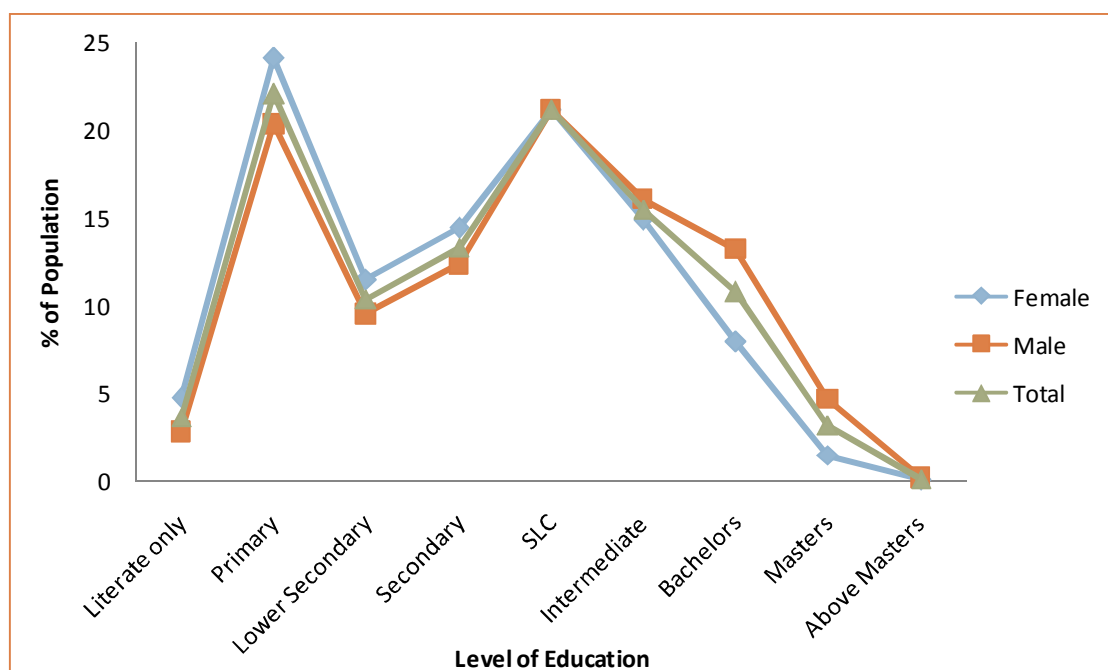


Figure 155 Education levels and literate population

4.3 Child and Adult Literacy

The literacy rate among the children (5-15 years) is quite high in the municipality that is about 99% (98.80% females and 98.88% males). Among the adult only about 81% are literate with considerably lower proportion of adult literate females to males (73.52% females and 88.08% males) among their respective groups. Of the total, almost 85.16% population are literate including both child literacy and adult literacy.

Table 16 Child and adult literacy rates

Age group	Female		Male		Total	
	No.	%	No.	%	No.	%
Child Literacy (5-15 years)	9374	98.80	9844	98.88	19228	98.84
Adult Literacy (15 above years)	22338	73.52	27902	88.08	50389	80.93
Total	31762	7924	37642	90.42	69404	84.93

The ward wise distribution of child literacy rates exhibit with higher child literacy rates adult in the wards 9, 6, 7, and 8. The adult literacy rates are high in wards 3,12,9 and 10. Wards 11, 14, 1, 13 and 5 have comparatively lower literacy rates which is shown in the figure 15 and presented in Appendix A.

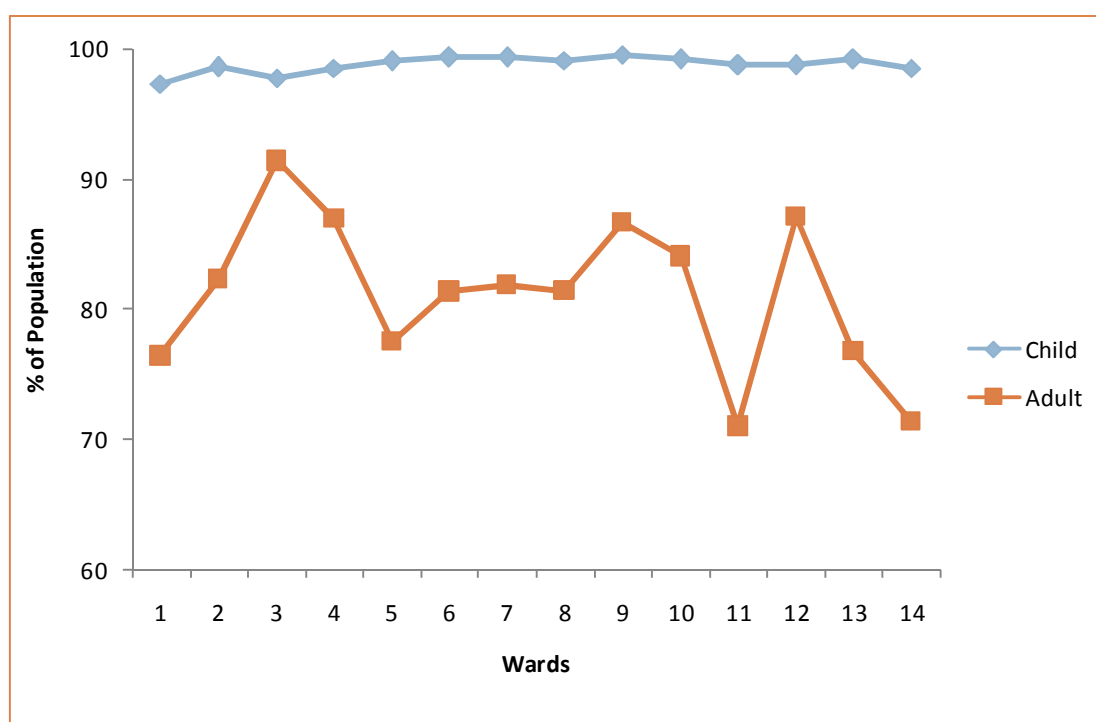


Figure 16 Child and adult literacy rates by wards

CHAPTER 5

HEALTH

5.1 Immunization in Children

Among the children below 5 years of age more than 86% are vaccinated against various diseases; such as BCG, DPT, and measles. The following graph shows the ward wise status of immunized children.

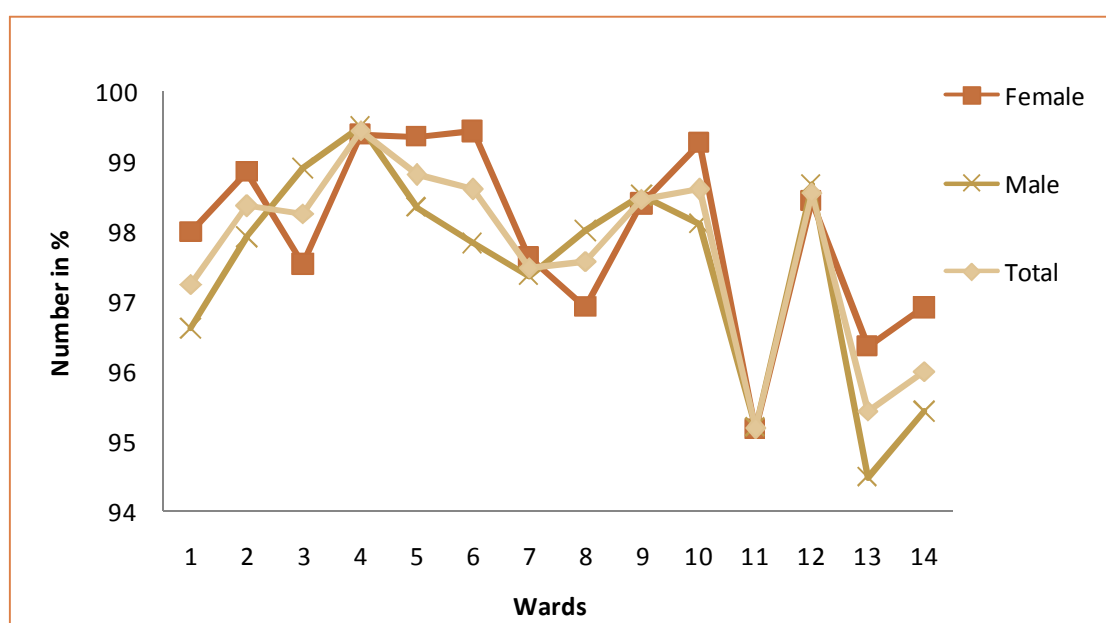


Figure 177 Percentage of immunized children by wards

Among the immunized children, majority have been found to be vaccinated for BCG (97.5%), DPT about 94%, OPV about (91%) and measles (86.5%) respectively.

Table 5.1: Immunization of children

Vaccine Types	Not Vaccinated		Vaccinated	
	No.	%	No.	%
BCG	5685	97.5	144	2.5
DPT1	5637	96.7	192	3.3
DPT2	5534	94.9	295	5.1
DPT3	5302	91.0	527	9.0
OPV1	5451	93.5	378	6.5
OPV2	5326	91.4	503	8.6
OPV3	5152	88.4	677	11.6
Measles	5042	86.5	787	13.5

5.2 Prevalence of Waterborne Disease

Waterborne diseases through unsafe drinking water are the major health issue all over the country. Especially children and poor are more vulnerable to various diseases due to consumption of unsafe drinking water and poor hygiene facilities. During last one year 976 person are contracted various diseases and among this 206 were reported to have contracted waterborne diseases and 470 with other diseases such as Asthma, Cancer, paralysis, Tuberculosis and others.

Table 17 Morbidity due to waterborne diseases

Illness	Age group						Total
	below 1 year		1-5 years		above 5 years		
	Female	Male	Female	Male	Female	Male	
Dysentery	0	0	2	2	13	18	35
Jaundice	0	0	4	8	30	94	94
Others	2	2	13	19	244	190	470
Scabies	0	0	0	0	2	1	3
Typhoid	0	0	4	5	26	26	61
Worm	1	0	0	0	5	7	13
Total	3	2	23	34	320	293	676

The mortality rate due to waterborne disease was also low during past year. Altogether 4 people were reported dead due to Jaundice and Typhoid.

Table 18 Mortality pattern due to waterborne diseases

Illness	Below1year		1-5years		above5years	
	Female	Male	Female	Male	Female	Male
Jaundice	0	0	0	0	0	3
Others	1	1	0	0	41	79
Typhoid	0	0	0	0	1	1
Total	1	1	0	0	42	83

5.3 Awareness to HIV/AIDS

The household census revealed out of total 17496 households, 95.3% are aware of HIV/AIDS and its ways of transmission. However, in ward 1, the awareness on HIV/AIDS is relatively less than other wards.

CHAPTER 6

HOUSING PATTERN

6.1 Housing and Dwelling Construction Type

Out of total houses/buildings, more than 96% are used for residential purposes in the municipality. Among the residential houses/buildings, 59.8% are RCC frame structure, 28% are cement masonry construction, 5.8% are mud masonry/wooden wall constructions, 4.9% are of temporary type and 1.5% are wooden matt wall or tin wall construction.

From the census survey, about 60% of the total households dwell in RCC frame structure, 28% in cement masonry, 5.8% in mud masonry/wooden wall houses, 4.9% with temporary construction and 1.5% dwell in woden matt wall.

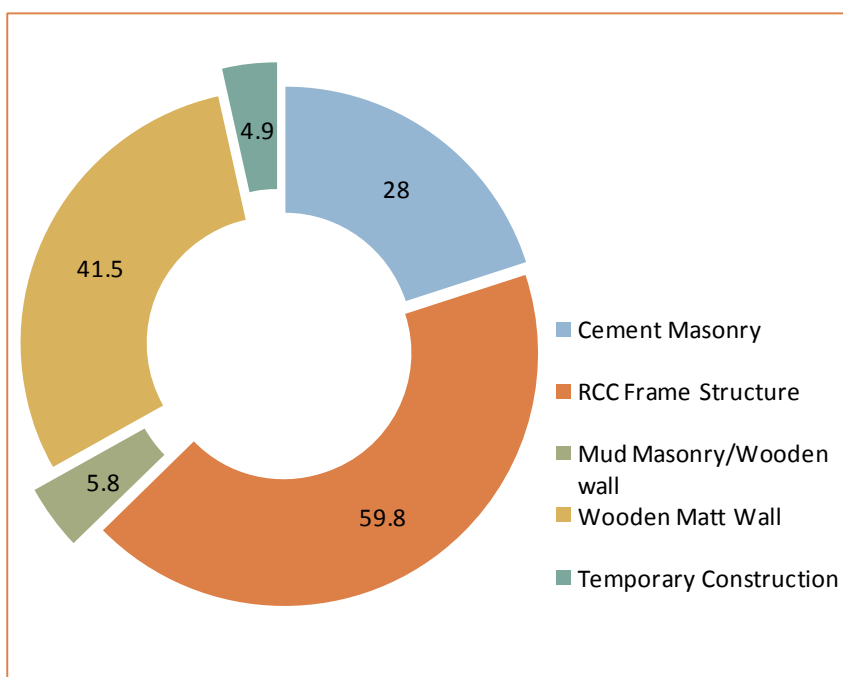


Figure 18 Household dwelling types

Table 6.1: Households dwelling in different building types

Construction Type	Household	
	No	%
Cement Masonry	4898	28.0
RCC Frame Structure	10460	59.8
Mud Masonry/Wooden wall	1021	5.8
Wooden Matt Wall	254	41.5
Temporary Construction	863	4.9
Total	17496	100.0

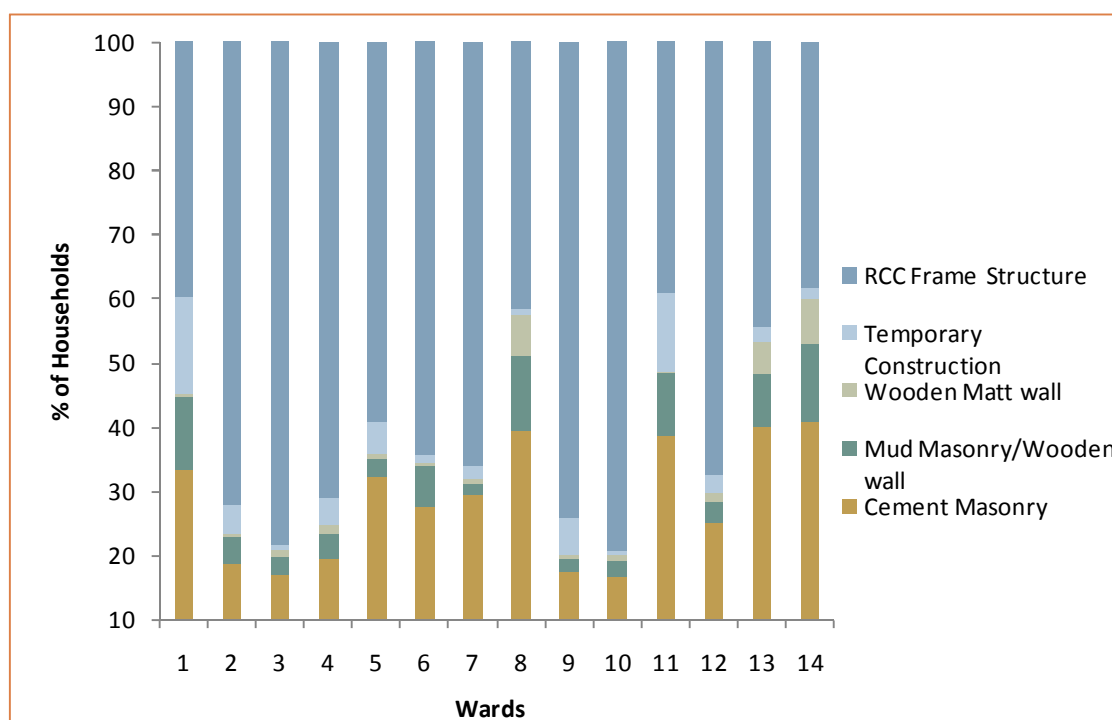


Figure 19 Proportion of dwelling types by wards

The ward wise distribution of dwelling type indicate ward 11 has majority of dwelling types made of temporary materials. Similarly, wards 14 have higher number of wooden mat wall and mud masonry/wooden wall dwellings. Wards 10, 3, 2 and 4 have higher number of RCC frame structure dwellings. The dwellings by temporary materials are considered as non-durable dwelling types and the residents in these houses are exposed to high morbidity and mortality risks.

6.2 House Ownership and Tenure Type

Out of total households, 87.99% dwell in self-owned houses. The average household size of such self-owned houses is 5.0 and the total occupant population is 77,517. The remaining 11.95% dwell in rented houses and other houses which are neither owned nor rented. The average size of rented houses is 4.1 with 8653 populations.

Table 19 Tenure type

Tenure Type	Household		Avg. Household Size	Total Population Living
	No	%		
Owned	15394	87.99	5.0	77517
Rented	2090	11.95	4.1	8653
Neither Owned nor Rented	12	0.06	3.2	38
Total	17496	100.0	4.9	86208

Ward wise distribution of house tenure type shows wards 8, 6, 11, 14, 13 and 5 have higher proportions of households dwelling in rented housings (more than 90%). These wards are

located in the city core area of the municipality where the concentration of commercial, business, administration and other service activities exist.

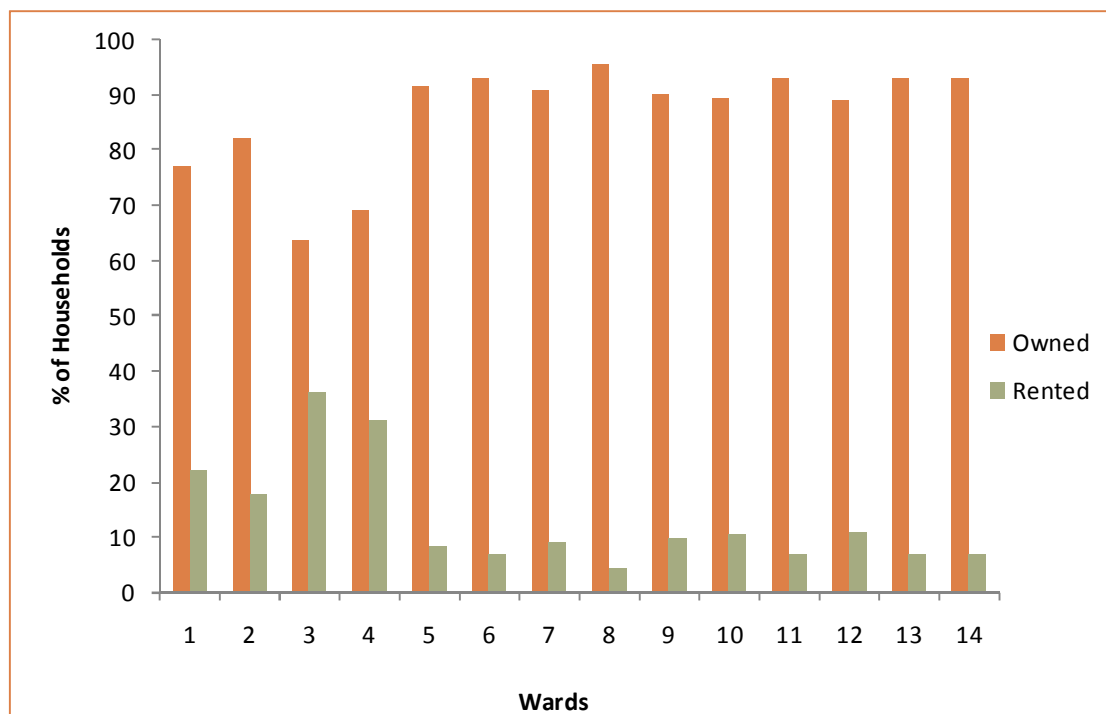


Figure 190 Proportion of household in owned and rented dwellings by wards

6.3 Land Holdings

Of the total households in the municipality, 91.94% have land ownership. Among this, almost sent percent households in the municipality have agriculture land. Only 7.88% have land used only for residential dwellings.

The ward wise distribution land holding pattern shows higher proportion of households without land ownership in wards 8, 6, 7, 13, 5, 10 and 14 (96.17%, 95.8, 95.67%, 95.89%, 95%, 94.47% and 93.70%,

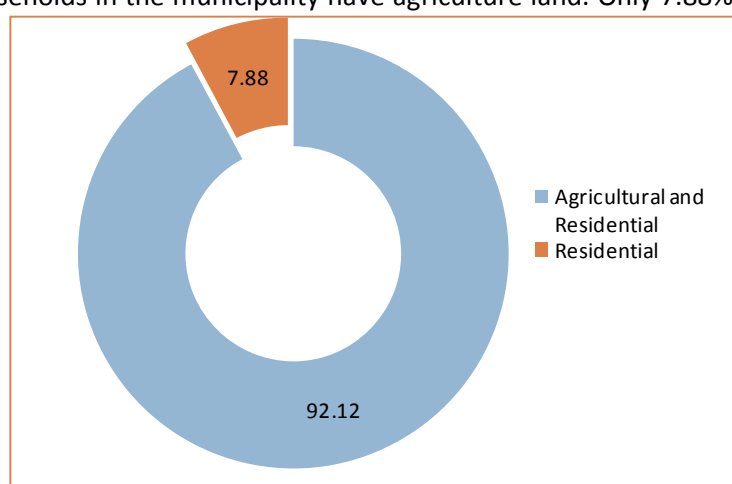


Figure 20 Land use type

respectively). The households in wards 3 (70.59%), 4 (78.86%), and 1 (79.83%) have comparatively higher proportions having ownership of land in compare to other wards in the municipality.

Table 20 Land holding pattern by wards

Wards	Without ownership		With ownership		Total
	No.	%	No.	%	
1	188	20.11	747	79.83	935
2	191	11.67	1445	88.32	1636
3	120	29.41	288	70.59	408
4	230	21.14	858	78.86	1088
5	52	5.00	987	95.00	1039
6	45	4.20	1026	95.80	1071
7	56	4.34	1233	95.67	1289
8	44	3.83	1104	96.17	1148
9	77	6.53	1103	93.47	1180
10	120	5.64	2006	94.36	2126
11	116	4.01	2778	96.00	2894
12	104	7.24	1333	92.76	1437
13	35	5.56	594	94.89	626
14	36	5.84	580	93.70	619
Total	1414	8.06	16082	91.94	17496

6.4 Access to Electricity and Telecommunication

Vast majority of households in the municipality have electricity connectivity (96.3% households). Among the wards, households in ward 3 have sent percent electricity connection. Wards having relatively lower proportion of households without electricity are wards 14, 1 and 13 respectively. In these wards only about 88% households have electricity connection while other wards have more than 90% households have electricity connection. The proportion of households with telephone connection is lower in the entire municipality in comparison to the electricity connection. On an average, only 44.2% households have telephone connection. Higher proportion of households with telephone connection are in wards 3, 1, 4, 2, and 12, while lower proportion of households with telephone connection are in wards 13, 14, 11, 1, and 8 respectively.

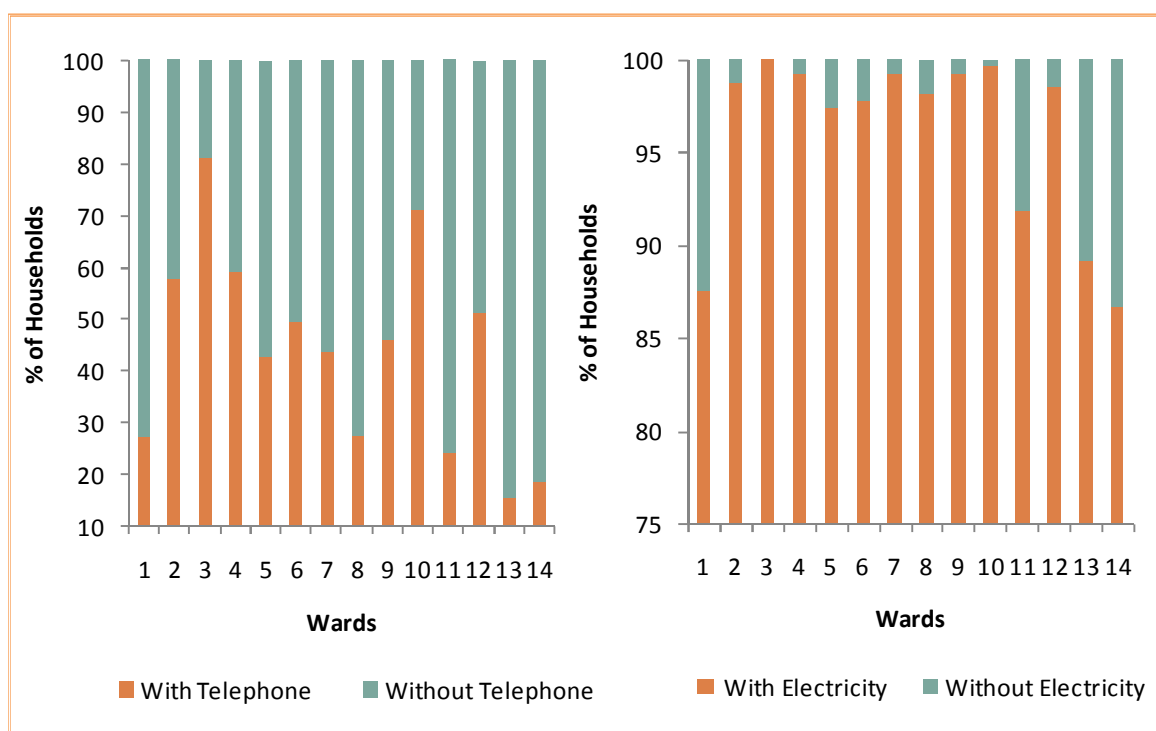


Figure 212 Households with electricity and telephone connectivity by wards

6.5 Accessibility to Road

Bharatpur municipality is well connected with other parts of the country by the East-west Highway and Prithivi Highway. The municipality has well developed network of motorable roads with total length of 537.11 km with black topped road 159.83 km, gravelled road 245.27 km, earthen road 103.01 km and foot path 28.99 km. Out of total houses in the municipality, 12,664 houses lies within 20m of road.

The household survey indicates 72.4% of the households have access to roads within 20m. However, only 3 houses do not have any kind of access to road (i. e., without access to path more than 2'6" wide).

Of the total households, 47% have access to black topped road, 44% have access to gravel road, 8.6% have access to earthen road and 0.6% have access to foot path.

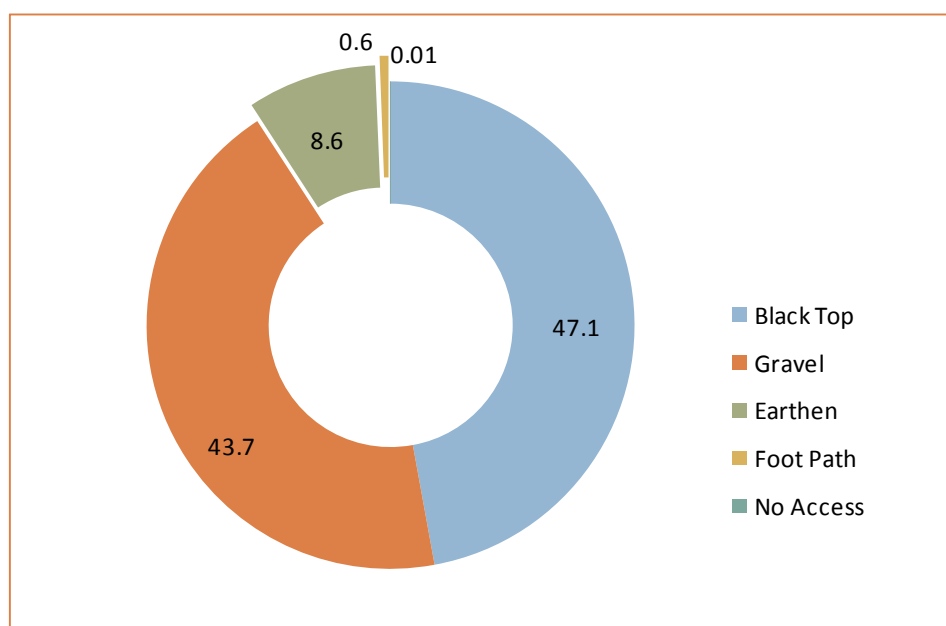


Figure 223 Households with different types of access to buildings

The following table shows the ward distribution of households with different road access types.

Table 21 Households with access to road by wards

Ward	Black Top	Earthen	Foot path	Gravel	No access	Total
1	406	114	13	402	0	935
2	797	55	11	773	0	1636
3	374	0	0	34	0	408
4	674	55	3	356	0	1088
5	638	109	13	279	0	1039
6	547	110	5	408	1	1071
7	605	163	5	516	0	1289
8	335	19	4	790	0	1148
9	542	91	1	546	0	1180
10	1481	93	14	538	0	2126
11	756	439	31	1666	2	2894
12	734	100	1	602	0	1437
13	126	67	5	428	0	626
14	226	84	5	304	0	619
Total	8241	1499	111	7642	3	17496

6.6 Types of Kitchen

The type of kitchen in use by the households reflects the hygiene condition as well as poverty situation. Generally, the impoverish households share dwelling room with kitchen and do not have proper place for washing. Such households have increased the risk of morbidity due to unhygienic cooking and living. The census survey showed only 23.4% of households have fully plumbed kitchen. The significant proportion households (23.6%) have place for washing dish with tap outside the kitchen. However, 9.4% households have place for washing dish without tap outside the kitchen, 12.1% households have tap at sorter height and 10.36% households have no proper place for washing dish even outside the kitchen.

Table 22 Households with different kitchen types

Kitchen Type	Households	
	No.	%
Full plumbed Kitchen	4089	23.40
Tap at sorter Height	2121	12.10
No Tap Inside Kitchen for Washing	3700	21.10
Place for Washing Dish Outside Kitchen	4137	23.60
Place for washing dish without tap outside Kitchen	1636	9.40
No place for washing dish(bucket used for washing)	1813	10.36
Total	17496	100.0

The ward wise distribution of households with different kitchen and washing facilities indicate wards 4, 9, 10, 7 and 2 have higher number of households with fully plumbed kitchen (41.2%, 40.3%, 36.1%, 35.3% and 32.5% respectively). In contrary, wards 11, 8 and 12 have higher proportion of households without proper place for washing dish (28.9%, 19.3% and 11.8% respectively).

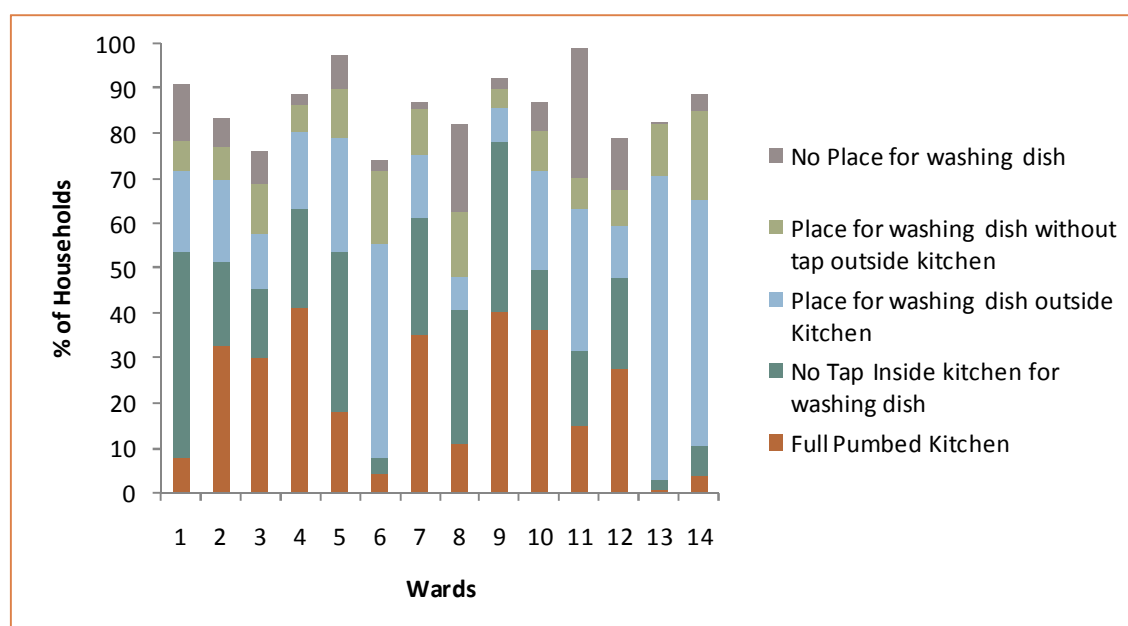


Figure 23 Households with different kitchen and washing facilities by wards

6.7 Cooking Fuel

The census survey reveals that the majority of households (31.94%) use LP gas for cooking followed by fuel wood (26.13%), LP gas and fuel wood (13.63%) and kerosene and fuel wood (2.09%). And other remaining households use multiple sources of fuel for cooking. The usage of different types of cooking fuels as alternates may be due to easy availability of fuel wood, frequent shortages and price hikes of primary cooking fuels such as gas and kerosene. The census survey also shows that negligible proportion of the have found s depending upon single source of cooking fuel such as bio-gas, kerosene, straw and electricity (0.39%, 0.15%, 0.15% and 0.14%) respectively.

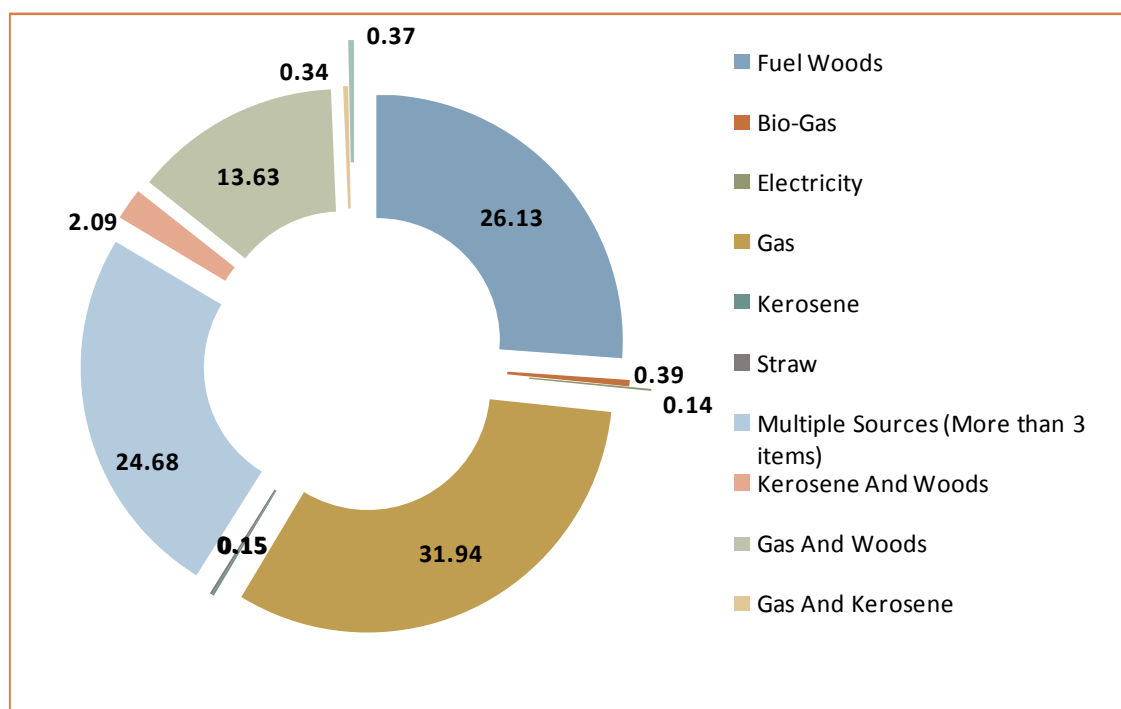


Figure 245 Households using different types of cooking fuel

Ward wise distribution of cooking fuel shows that the higher proportion of households (48.5%) in ward 3 use LP gas followed by ward 6 (47.7%), 9 (45.3%) and 12 (41.2%) respectively. Likewise, the higher proportion of households in ward 1 use fuel wood (57.1%) followed by ward 11 (49.6%) and 8 (38.2%) respectively.

6.8 Household Assets

The census survey indicates that 80.8% households own television, 29.92% own refrigerator, 23.17% own motor cycle/scooter, 12.92% own bicycle and 58.4% owns mobile telephone and 10% own computer. Likewise, 88 households own other assets but very negligible proportion of households own Rikkshaw (0.4%) and Truck/micro bus (0.03%). Only 2.02% have access to internet facility at home among the total households in the municipality

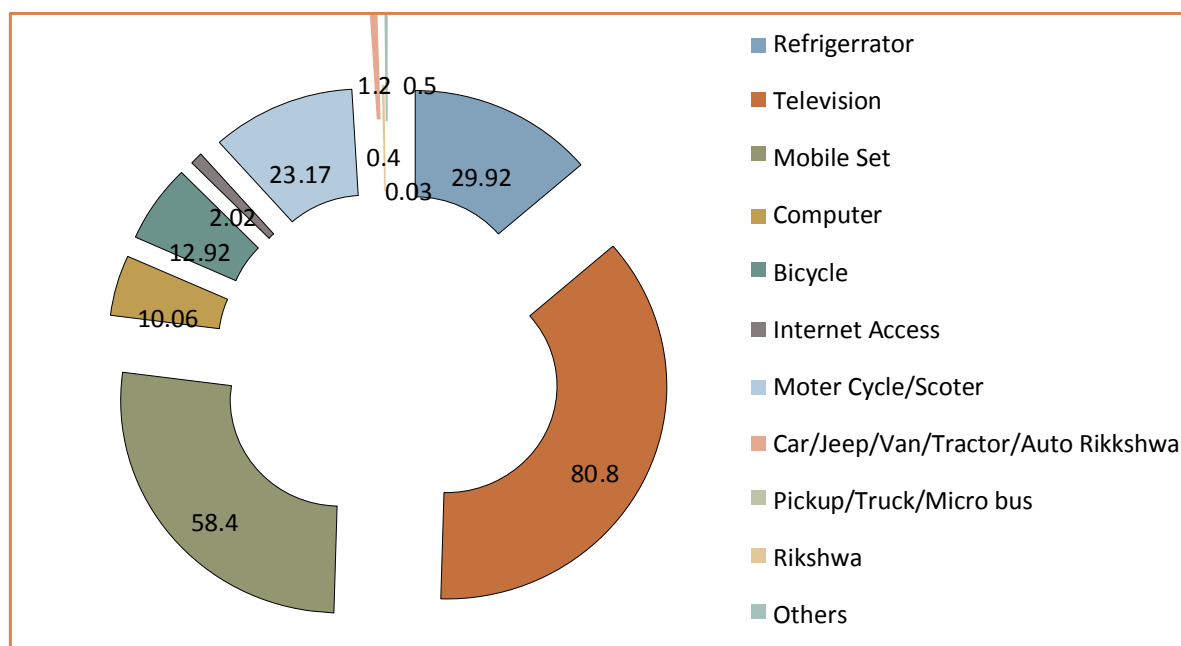


Figure 256 Household owning different assets/facilities

Ward wise distribution of households with aforementioned classified assets show wards 10, 2, 11, 12 and 9 have higher proportion of households owning refrigerator; wards 11, 10, 2, 12 and 9 have higher proportions of households owning television. Majority of the households in all wards own television but small proportions of households in all wards have Rikkshaw. A few proportions of households in all wards also have internet access at home.

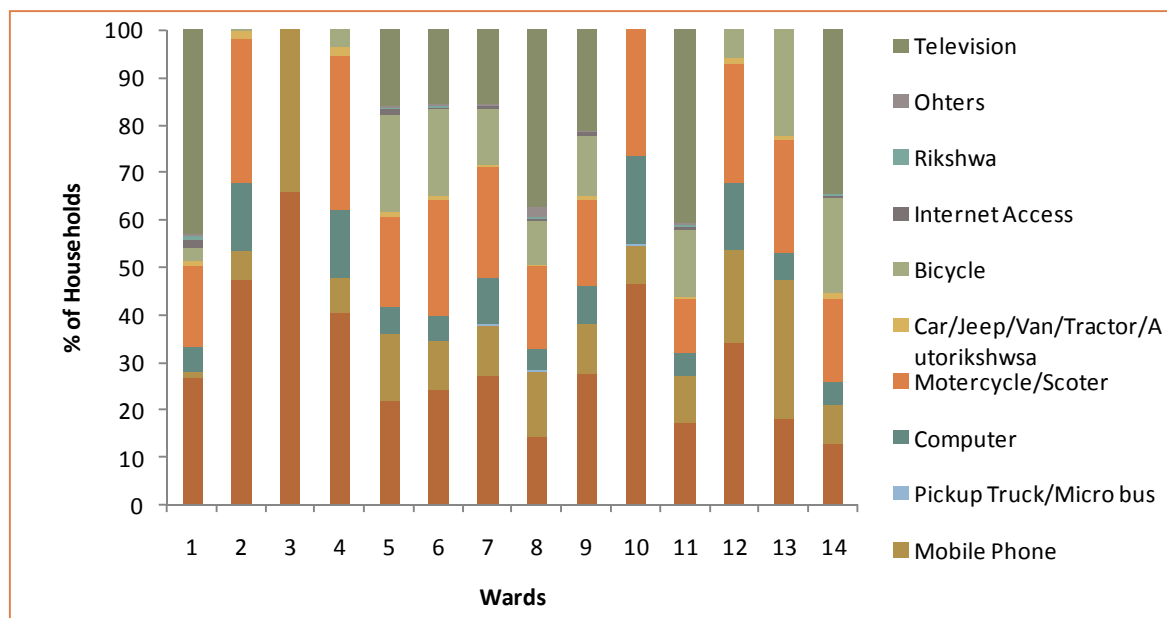


Figure 267 Households owning different assets by wards

CHAPTER 7

ECONOMIC ACTIVITY & TREND

7.1 Household Source of Income

Out of total households, 25.58% households have multiple sources of income. Among other major sources of household income, business comes in second with 20.45% households and service with 20.24% households in the third. Household dependent on remittance, agriculture, labour works and house rent is also relatively significant with 13.24%, 7.92%, 3.23% and 2.85% respectively. Household dependent on pension is about 1.38%, on livestock farming about 0.8% and on industry is 0.43%. Households dependent on other sources of income are 3.88% these include interest from capital, jobs such as teaching, driving, plumbing, mechanics and various others technical and non-technical jobs.

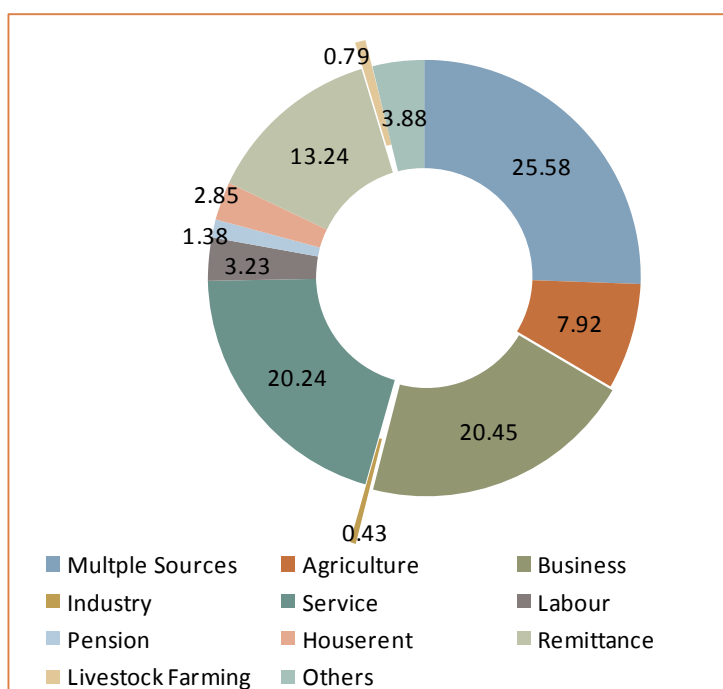


Figure 27 Household income sources

Table 23 Household with different income sources

Sources of Income	Household	
	No.	%
Multiple Sources	4475	25.58
Agriculture	1386	7.92
Business	3578	20.45
Industry	76	0.43
Service	3542	20.24
Labour	565	3.23
Pension	242	1.38
House rent	498	2.85
Remittance	2317	13.24
Livestock Farming	139	0.79
Others	678	3.88
Total	17496	100.0

7.2 Occupation

Among the adult population of 61626 (15 years and above), 52.98% are economically active and remaining are economically inactive. Among the inactive population 66.84% are females and 27.92% are males. In this proportion majority are unemployed (26.81%) and students (19.74%).

Distribution of population by occupation shows that the population engaged in service has the largest proportion with 20.64% of the total adult population followed by business with 10.44% and agriculture with 8.80%. Among the total population engaged in service, 13.66% are females and 86.34% are males. Similarly, the total

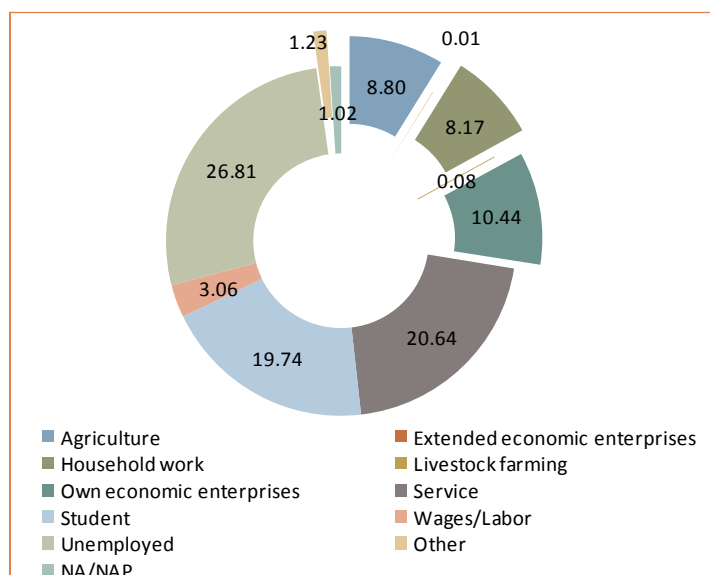


Figure 29 Occupations of adult population

adults engaged in business are 22.02% females and 77.98% males, in agriculture, 25.81% are females and 74.19% are males and in wage labour 18.43% are females and 81.57% are males. This indicates that majority of male members of the households are engaged in outside works (cash earning activities/productive works) and females are engaged in household works.

Among the economically inactive population, 26.81% (86.90% females and 13.10% males) are unemployed and 19.74% (46.53% females and 53.47% males) are student.

Table 24 Population by different occupation

Occupation	Female		Male		Total	
	No.	%	No.	%	No.	%
Agriculture	1414	25.81	4064	74.19	5478	8.80
Household work	4958	97.48	128	2.52	5086	8.17
Service	1756	13.66	11096	86.34	12852	20.64
Economic enterprises/Business	1431	22.02	5069	77.98	6500	10.44
Wages/Labor	351	18.43	1553	81.57	1904	3.06
Livestock farming	18	34.62	34	65.38	52	0.08
Student	5717	46.53	6571	53.47	12288	19.74
Unemployed	14504	86.90	2187	13.10	16691	26.81
Other	103	13.41	665	86.59	768	1.23
Extend Economic Enterprises	1	14.29	6	85.71	7	0.01
NA/NAP	332	52.28	303	47.72	635	1.02
Total	31585	49.12	31676	50.88	62261	100.0

Ward wise distribution of population engaged in different occupations is presented in *Appendix A*.

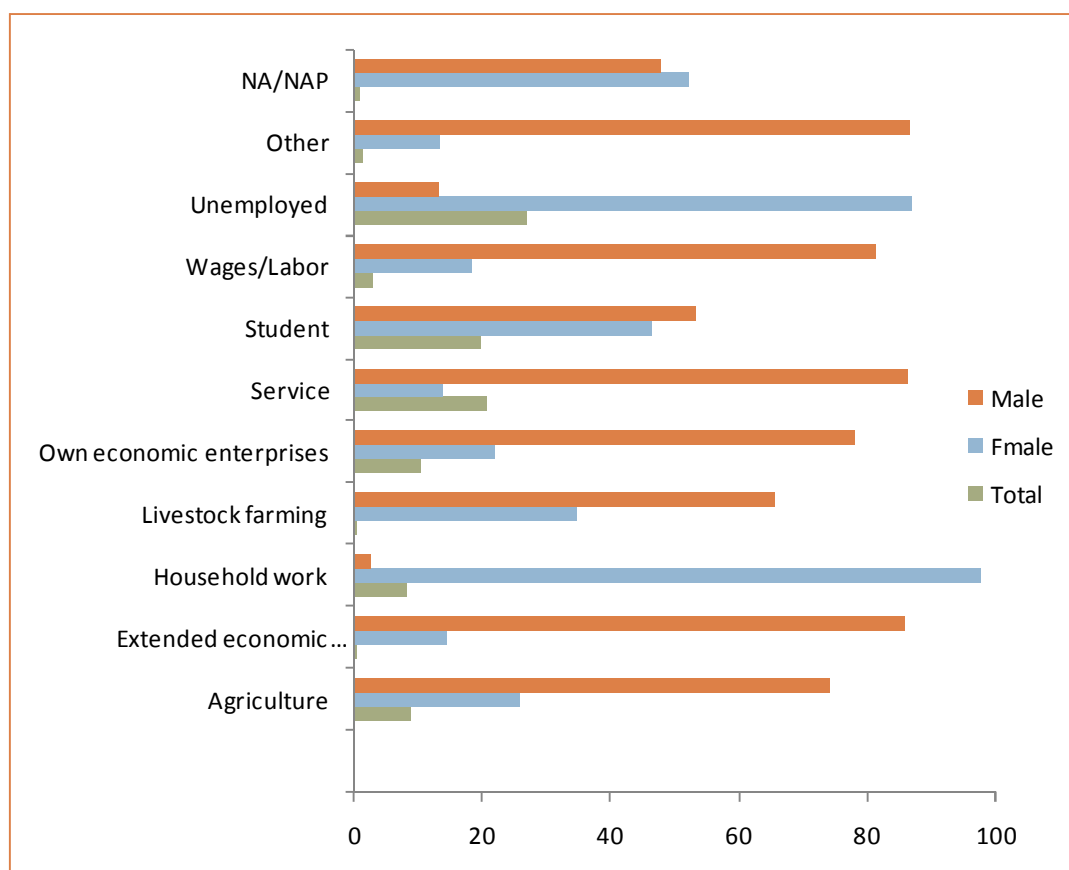


Figure 28 Proportion of adult population in different occupation

7.3 Household Income

Household income is one of the primary indicators of poverty. Income can be related to the subsistence and state of well being of the population. In this context, the absolute poverty has been defined as the minimum subsistence requirement by the Nepal Living Standard Survey and is measured by pricing the basic necessities of life which includes minimum food caloric intake requirements of 2,144 calories per person per day plus essential non-food components. This requires Rs. 4,768 (Rs. 3,443.7 for food and Rs.1,624.3 for non-food) per annum for a household for subsistence¹ as per Cost-of-Basic-Needs (CBN) method.

Hence, according to this method the minimum monthly income requirement for a household is Rs. 1959² and Rs. 23,506 for per annum. Households with average monthly

¹ Poverty Trends in Nepal (1995-95 and 2003-04), CBS, 2005

² Rs.4,768/year x average household size; 4,768/12*4.93=Rs.1958.85 \cong Rs.1959

income below this threshold is considered as ultra poor. The status of well being is higher with increase in income.

The census survey shows that, larger proportions of households (48.23%) have average annual income between Rs.1,00,000 to 5, 00, 000 of the total households 23.87% have average annual income between RS. 60,000 to Rs.1,00,000, 20.14% households have average annual income of Rs. 23,506 to Rs. 60,000 and 2.21% households have average annual income up to Rs. 23,506 indicating these households are below absolute poverty line. Higher proportion of households having annual average income up to Rs. 23,506 in wards 14, 13, 6 and 1 (8.24%, 5.75%, 5.51% and 5.24%; respectively).

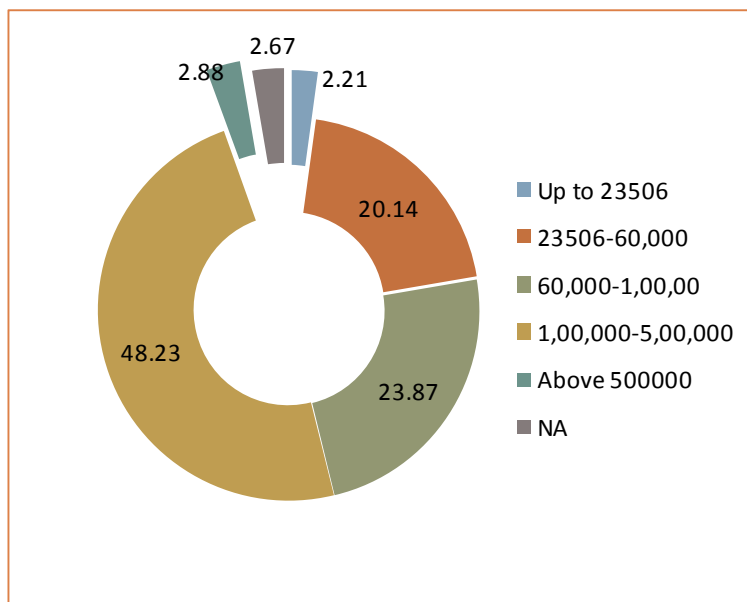


Figure 29 Average monthly income groups

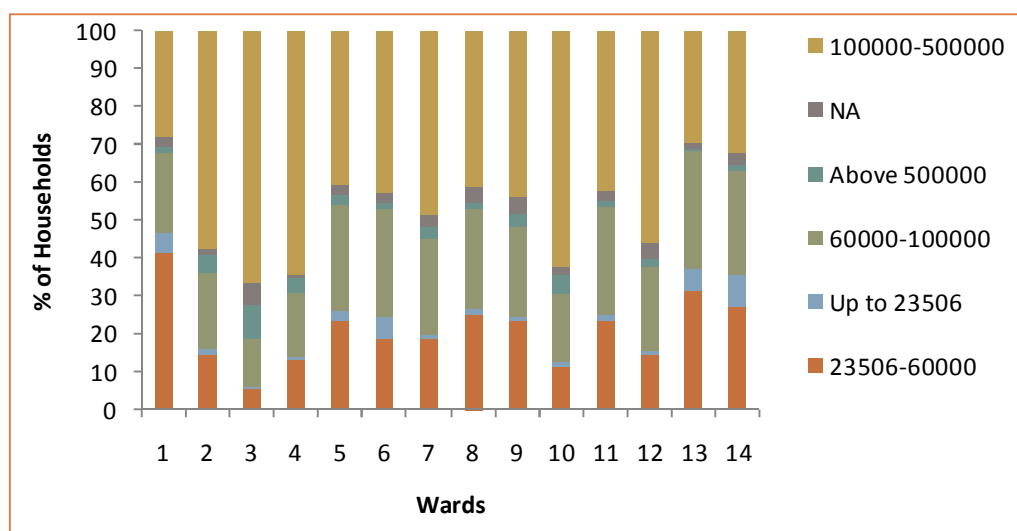


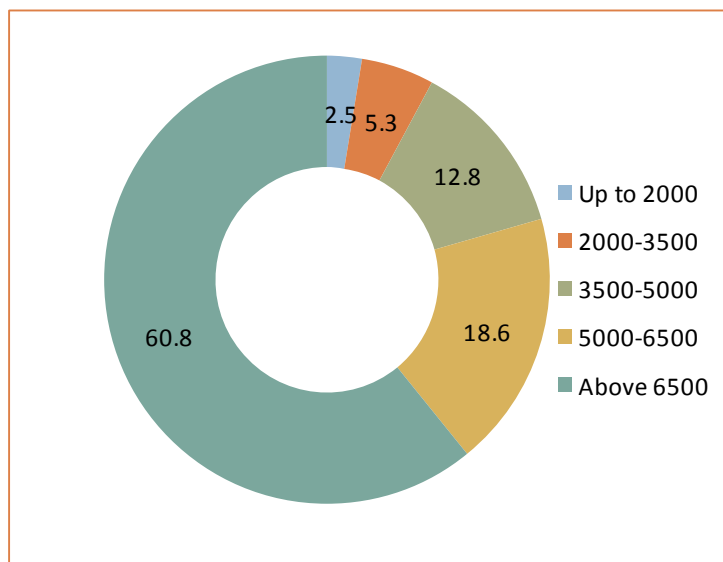
Figure 30 Households with different income levels by wards

7.4 Household Expenses

The average monthly household expenditure in the municipality is Rs. 8,523 with its median value as Rs. 7,500. The household's monthly expenditure pattern shows that larger proportion of households have expenditure level above Rs. 6,500 in 60.8% of the total

households. Households having monthly expenditure of between Rs. 5,000 to 6,500 in second with 18.6% followed by households with expenditure level from Rs. 3,500 to 5,000 in 12.8% of the total households. Households having monthly expenditure of up to Rs. 2,000 are 2.5% of the total households showing below absolute poverty line, indicating occurrences of impoverish households that can only afford to spend the minimum subsistence amount.

The ward wise distribution of average expenditure levels indicates that higher



proportion of households with lower expenditure level are found in wards 1 (10.6%), 3 (3.9%) and 8 (3.7%). Wards 9, 7, 4 and 12 have relatively higher proportion of households with expenditure level above Rs. 6,500.

The comparison of mean incomes and expenditures indicate strong positive correlation indicating higher income levels with higher expenditure levels, justifying that households with lower income levels have lower household expenditure too.

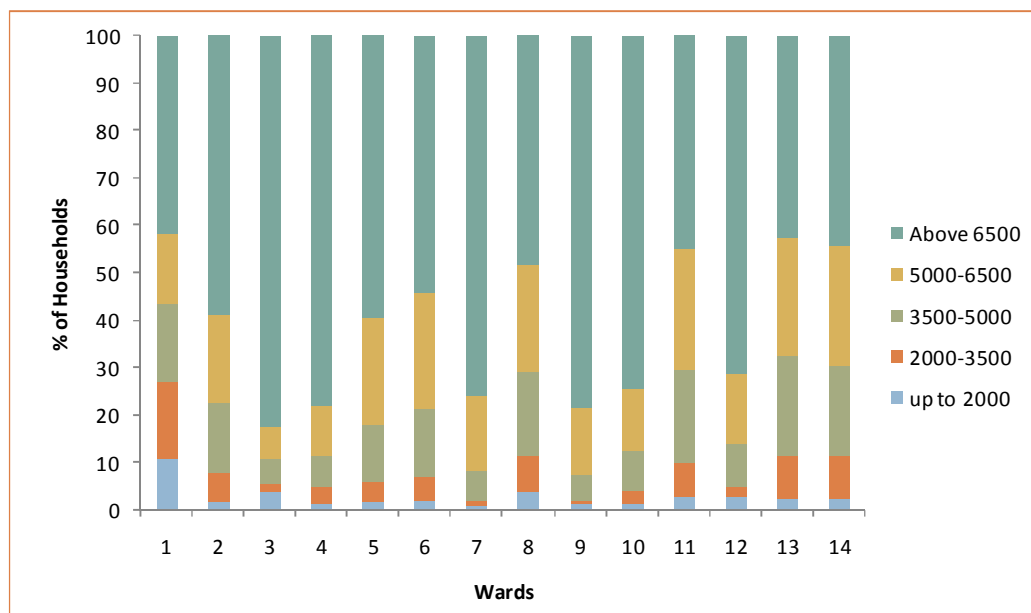


Figure 324 Households expenditure level by wards

The census data shows that all the wards in the municipality have higher mean income level than mean expenditure level. This indicates that there is no gap between earning and spending. According to the census data, ward 3 has the higher average monthly income level (Rs. 21,520) and average monthly expenditure level (Rs. 13,123) and ward 13 has

lower average monthly income level (Rs. 7,836) and average expenditure level (Rs. 6,581) compare to all other wards in the municipality. Wards 2, 3, 5 and 7 have greater differences in income levels and expenditure levels. Income levels are being higher than the expenditure levels in these wards. Wards 9 and 11 have lower differences in income and expenditure levels.

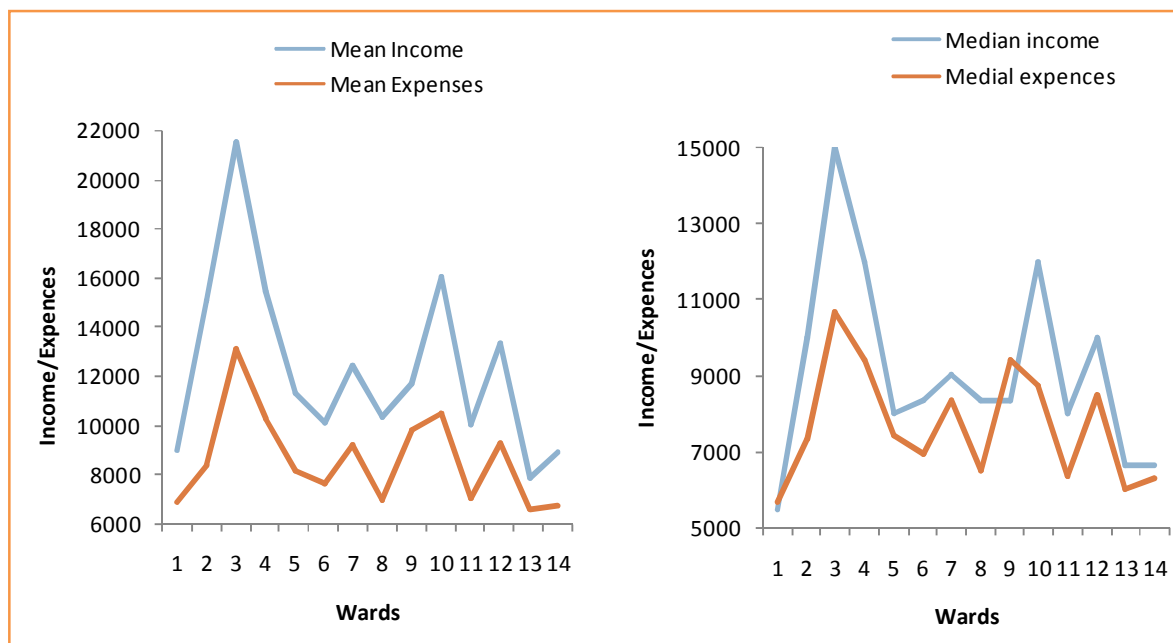


Figure 33 Mean and median monthly income and expenditures

CHAPTER 8

DRINKING WATER & SANITATION

8.1 Drinking Water Source

The census survey found that households of the Bharatpur Municipality using multiple sources of water for drinking and other daily household usage. More than half of the total households are using hand pump (52.01%) for drinking water followed by piped connection (25.08%), open dug well (16.78%) and public stand post (3.17%). Out of the total households, 2.87% use water from Kuwa/Khola and insignificant proportion of household use river stream and stone tap for water.

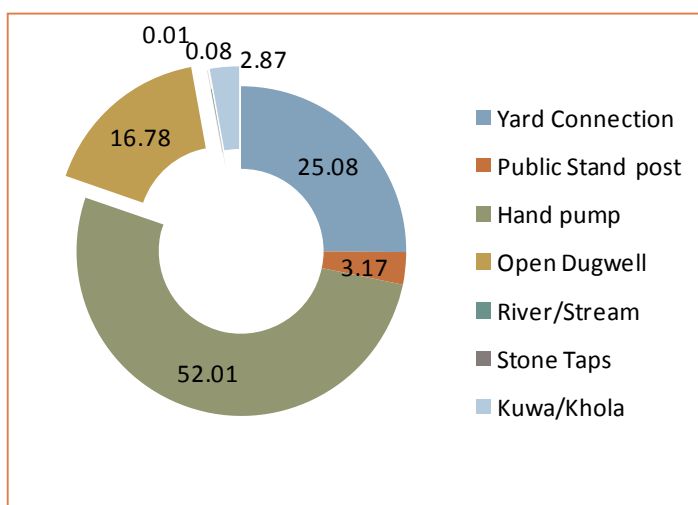


Figure 34 Households using different water supply sources

8.2 Household Consumption, Adequacy and Reliability

Water is needed for various household activities (drinking, washing, bathing), animals, gardening/in vegetables and other purposes. The census survey shows 96% of total households using water from hand pump expressed water supply is adequate and that 97% expressed water supply is reliable as well.

Like wise, of the total households using water from piped connection and public stand post 95% each expressed water supply is adequate and that of 95.6% and 96.7% households expressed water supply is reliable too.

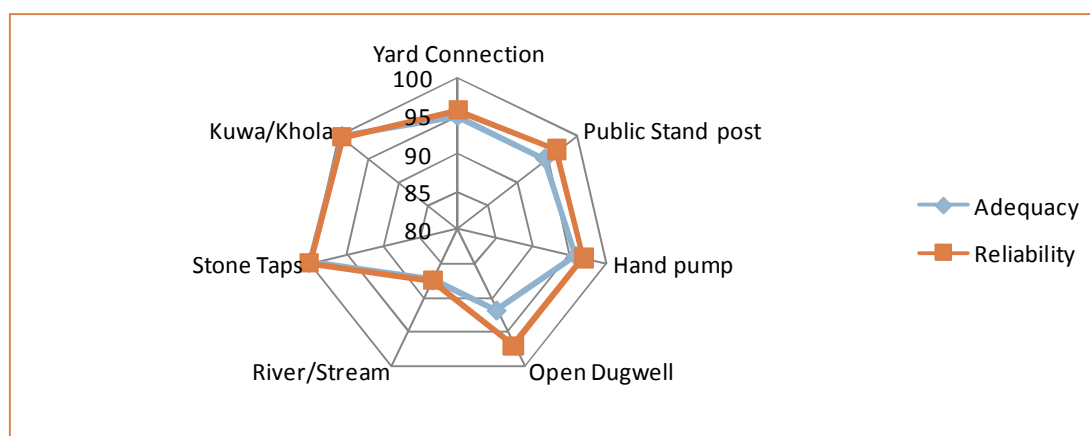


Figure 35 Spider diagram of adequacy and reliability of water from different sources

8.3 Water Quality and Treatment

The census survey data shows that the majority of households (about 71%) approve of good quality water with more than 84% acknowledging of good quality piped water. However, a significant proportion of households expressed water quality as fair (28.4%). A significant proportion of households also filter water (24.8%), boiled (11.74%), chlorinate (9.44%) and use water guard (2.02%) for water treatment.

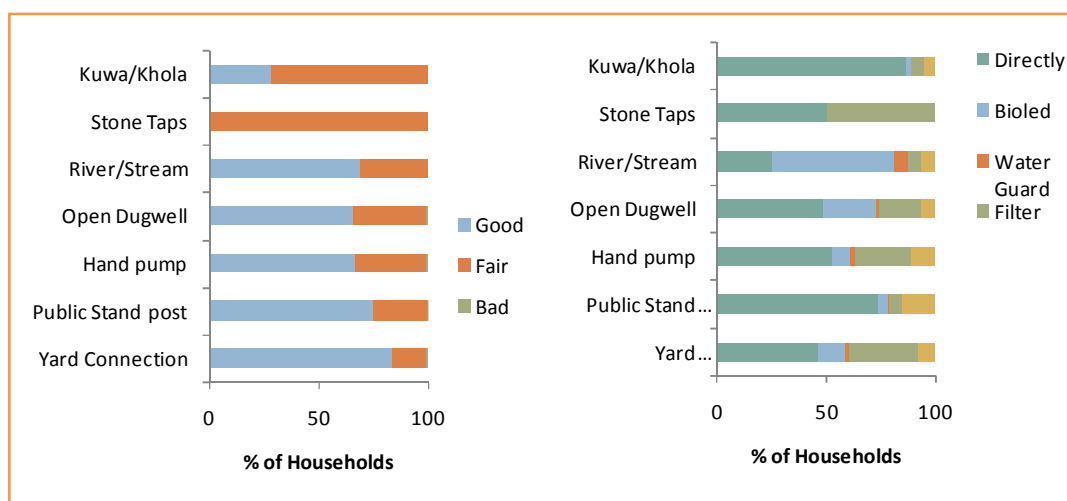


Figure 36 Quality of water treatments used in different sources

8.4 Water Tariff

Among the yard connected households, 97.6% are metered and among these 94.89% in these households are working properly. Among these households more than 93% are paying tariff of more than Rs.250 per month.

Table 25 household paying water tariff

Wards	Up to 50	51 to 100	101 to 250	Above 250	Data Not available
1	0	0	0	239	696
2	8	4	23	1092	509
3	5	1	0	218	184
4	0	0	0	33	1055
5	0	1	0	40	998
6	2	3	2	54	1010
7	3	4	2	171	1109
8	1	0	0	17	1130
9	2	0	3	380	795
10	84	35	59	1423	525
11	8	8	10	205	2663
12	9	4	3	382	1039
13	0	0	0	0	626
14	0	0	0	0	619
Total	122	60	102	4254	12958

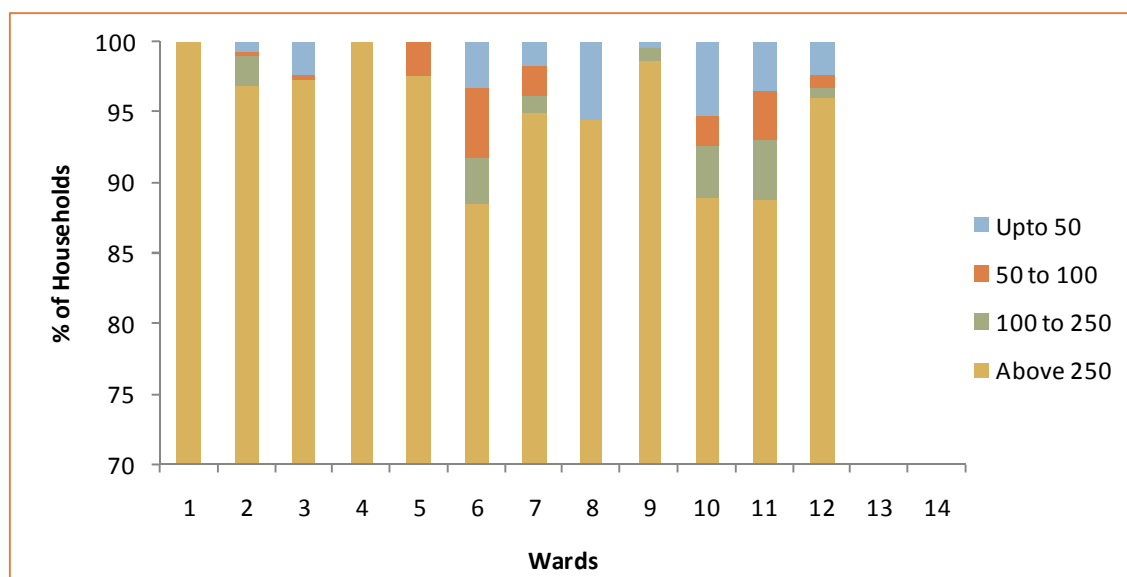


Figure 3937 Proportion households paying water tariff

Among the yard unconnected households, majority of households (64.33%) consent to pay up to Rs.50 per month; 20.47% willing to pay Rs.51 to Rs.100. Only 6.09% are willing to pay more than Rs.100 per month for new connection.

Table 26: Unconnected households willing to pay water tariff

Ward	Total willing Household	Up to 50	51 to 100	101 to 250	Above 250	Not Available
1	696	473	103	64	14	42
2	509	150	109	150	55	45
3	184	93	44	34	3	10
4	1055	594	265	36	103	57
5	998	657	146	95	31	69
6	1010	460	241	175	85	49
7	1109	840	41	84	136	8
8	1130	876	165	35	19	35
9	795	573	123	47	23	29
10	525	274	54	75	101	21
11	2663	1617	685	184	83	94
12	1039	730	250	10	2	47
13	626	324	134	76	55	37
14	619	298	172	63	43	43
Total	12958	7959	2532	1128	753	586

8.5 Distance to Water Source

The distance to water source is the travel time to reach the source, fill the container and return back to the house i.e. the total fetching time. However, in general the terminology is used not for the fetching time but for the reaching time to the source. The travel time/distance to the water source is important to the households without yard connectivity and especially to the female members as they need to devote considerable time in fetching water.

The survey data shows that more than 94% of households have access to water sources within 0-5 minutes of travelling distance. The majority of this proportion (77.09%) includes households with hand pump and yard connection as well. About 5% households have access to water source within 5 to 15 minutes of walking distance and insignificant proportion of households have access of water by travelling more than 15 minutes from their houses. The longer travel time for fetching water is prevalent in wards 14 (1%), 2 (0.6%), 1, 5, 11, 7 and 13 with (0.3%) each.

Table 27 Travel time to water source

Wards	0-5 min		5-15 min		15-30 min		>30		Total
	No.	%	No.	%	No.	%	No.	%	
1	886	94.8	45	4.8	3	0.3	1	0.1	935
2	1556	95.1	71	4.3	9	0.6	0	0	1636
3	407	99.8	1	0.2	0	0.2	0	0	408
4	1083	99.5	3	0.3	2	0.3	0	0	1088
5	936	90.1	100	9.6	3	0.1	0	0	1039
6	1037	96.8	33	3.1	1	0.3	0	0	1071
7	1250	97.0	35	2.7	4	0	0	0	1298
8	1131	98.5	17	1.5	0	0.1	0	0	1148
9	1170	99.2	9	0.8	1	0.2	0	0	1180
10	2056	96.7	66	3.1	4	0.3	0	0	2126
11	2445	84.5	439	15.0	10	0.1	0	0	2894
12	1416	98.5	20	1.4	1	0.3	0	0	1437
13	608	97.1	16	2.6	2	1.0	0	0	626
14	598	96.6	14	2.3	6	0.3	1	0.1	619
Total	16579	94.8	869	5.0	46	0.3	2	0.01	17496

[Note: Total of 290 households does not have travel time data]

8.6 Sanitation and Toilets

The census survey indicates that 97.43% of the households have toilets. Wards 1 and 11 have slightly higher proportions of households without toilet (14.33% and 7.08%) indicating existence of poor sanitation condition of

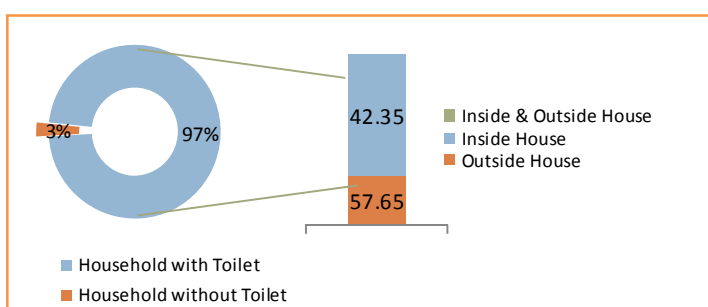


Figure 38 Households with/without toilets

the houses in these wards compare to the other wards of the municipality. Moreover, in remaining other wards, more than 98% of the total households have toilet facilities. All the households in ward 13 have toilet facility followed by wards 10 (99.76%), 3 (99.75%), 4 (99.49%) 14 (99.52%) and 9 (99.49%) respectively. Among the households with toilet facilities, the majority of about 58% households have toilets outside their houses and about 42% have toilet inside their houses.

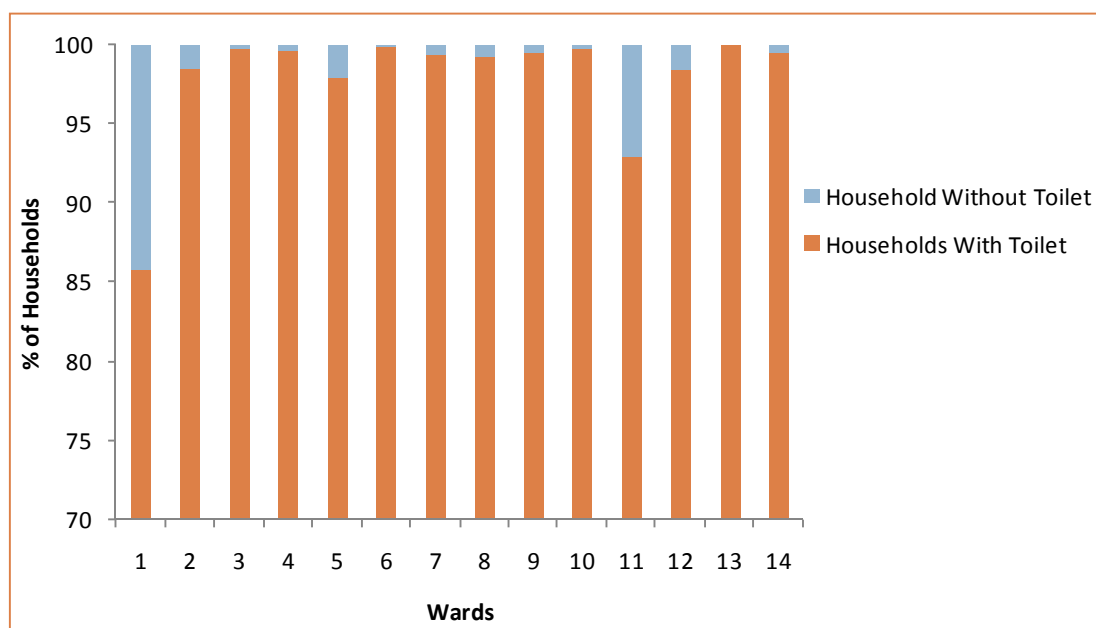


Figure 391 Households with/without toilet by wards

8.7 Toilet Types

The types of toilets existing in the municipality are Sulabh toilets (80.91%), pit latrine (11.6%), cistern flush toilet (7.4%) and insignificant proportion of households (0.07%) have Ecosan and others (0.02%). Majority of households have sulabh toilets and significant proportion of households have pit latrine toilets indicating less awareness of sanitation conditions among the households.

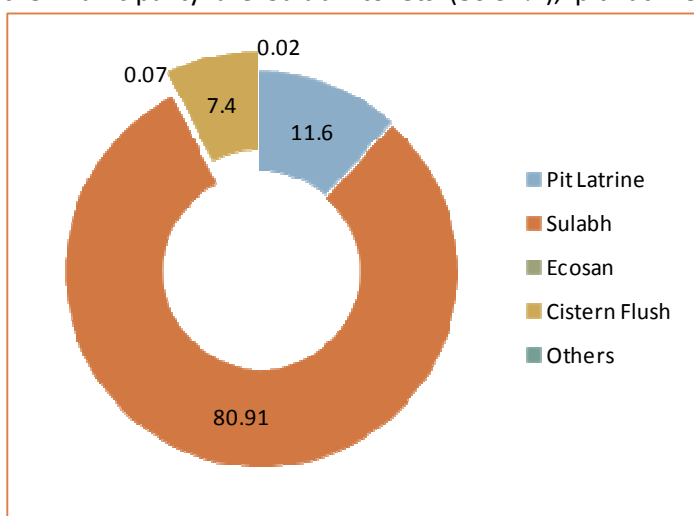


Figure 40 Toilet types

The ward wise distribution of toilet types also indicates higher proportions of sulabh toilets in all the wards. A significant proportion of households in wards 10, 3, 12, and 2 have cistern flush toilets. No households in ward 14 have cistern flush toilet facility.

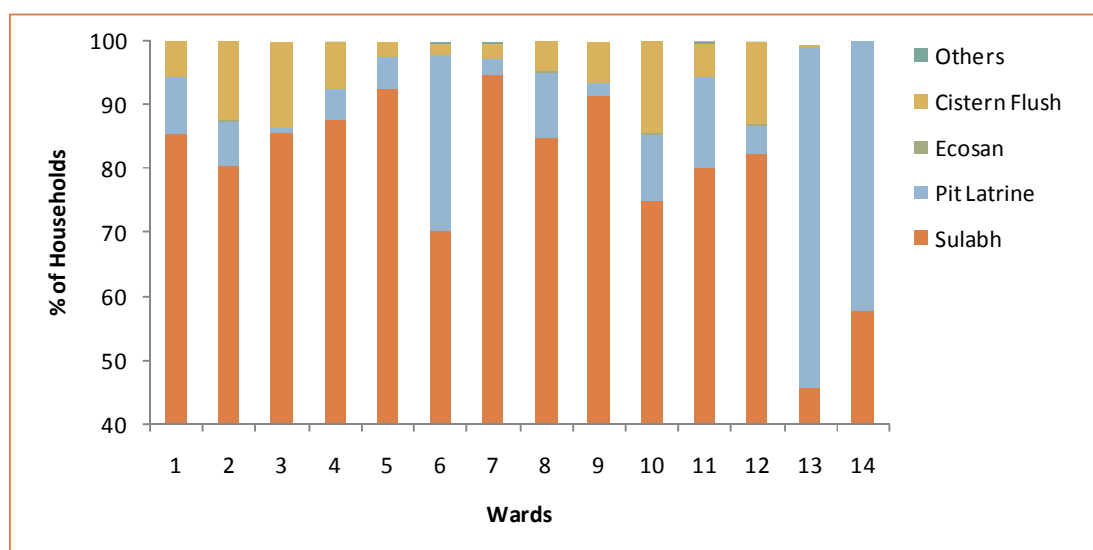


Figure 41 Toilet types by wards

8.8 Sewerage

The census survey indicate that majority of households (66.64%) dispose waste water in septic tank exhibiting non existence of sewer connections in most of the inhabited areas or insufficient service coverage in the municipality. There is no proper sewerage system in the municipality.

However, there is sewerage along the high way to dispose the run-off rain water and the households connected along the highway also dispose waste water. Thus, only very few proportion of households (0.84%) have sewer connection. The survey also showed 27.8% households dispose waste water in open drain and

4.71% dispose in their pit latrines.

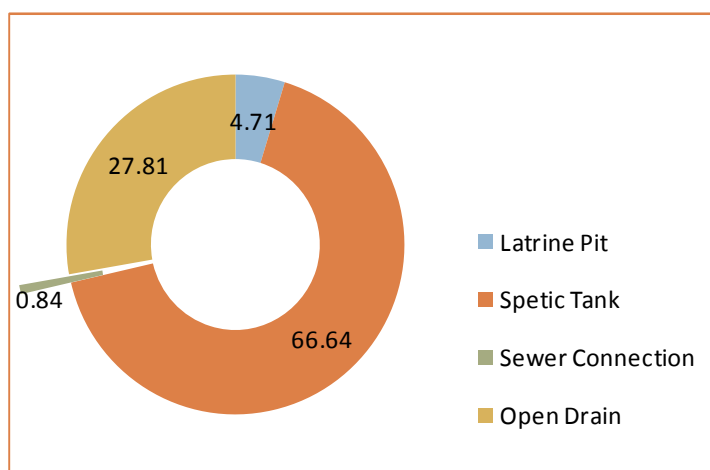


Figure 42 Disposal of waste water by the households

Data on ward wise distribution of waste water disposal shows that wards 3, 1 and 4 have higher proportion of households with sewer connection and few or less than 1% households in wards 2, 12, 10 and 8 have sewer connection. More than 77% households in wards 12, 14 and 6 dispose waste water in open drain.

The census survey shows that majority of sewer unconnected households (80.7%) are willing to connect sewer in their houses if the service is available in their household areas. They are ready to pay some amount to get this facility according to their household economic capacity. Majority of the unconnected households are willing to pay up to Rs. 50 per month to connect sewer in their houses followed by 10.93% willing to pay Rs. 51 to 100

and 4.66% unconnected households also expressed that they should be get this facility without paying any tariff.

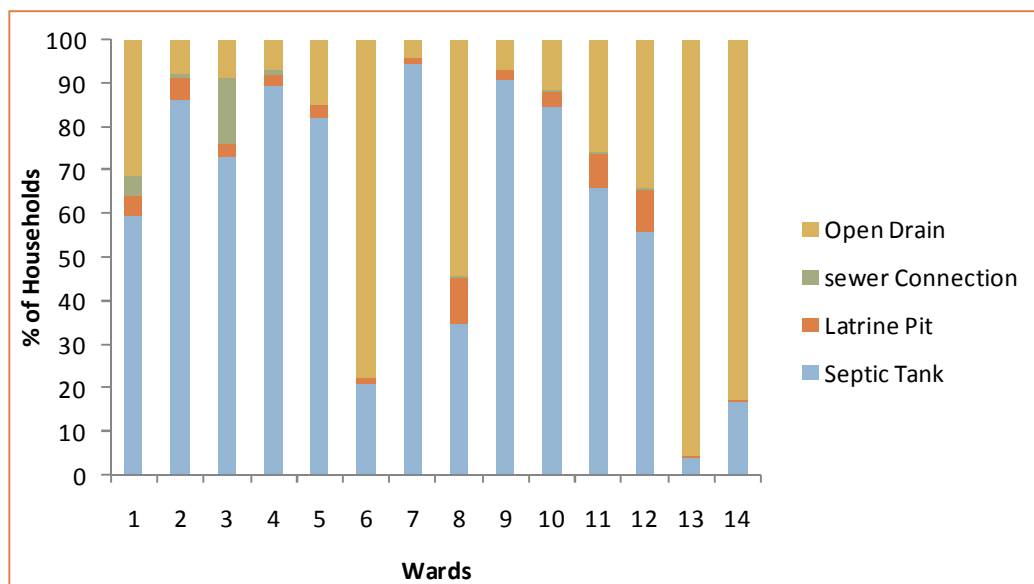


Figure 435 Pattern of waste water dispose by wards

8.9 Solid Waste

The census survey indicated that majority of the households (31.1%) collect and burnt themselves their solid wastes; 26% households kept on road side to be collected by municipality, 15.6% compost and burnt, 12.2% collect and bury; 5.9% compost their solid waste and 3.5% threw indiscriminately in their surroundings or along the road.

The ward wise distribution of solid waste management practices indicates that wards 3 (83.09%), 10 (69.19%), 4 (53.31%) and 2 (44.80%) have relatively higher municipal solid waste collection system. Ward 13 has the least effective/coverage of municipal solid waste collection system and higher proportions of households in that ward (86.10%) burnt and compost solid waste. On the other hand higher proportion of households in wards 9, 5, 11, 8 and 4 burnt their solid wastes. The detail of solid waste management in ward level is presented in Appendix A.

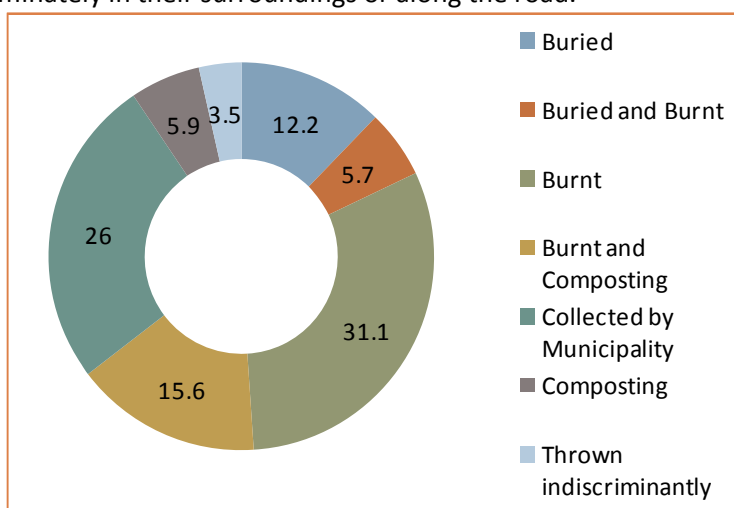


Figure 44Households status of solid waste management

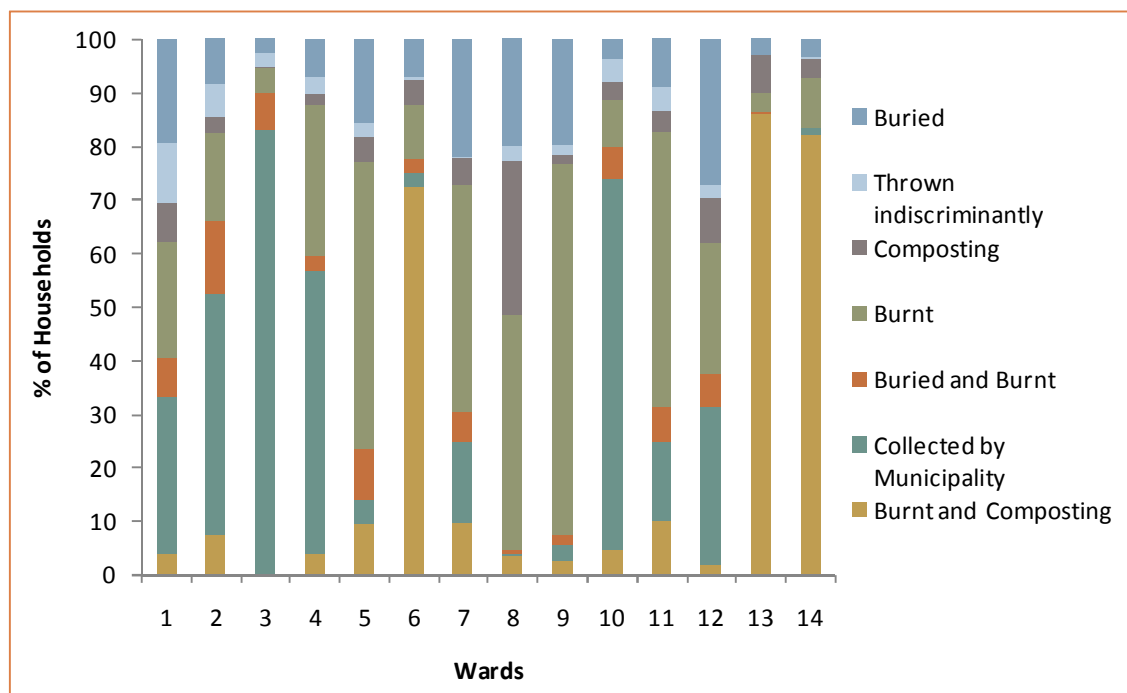


Figure 457 Household status of solid waste management by wards

COMMUNITY DEVELOPMENT

9.1 Households Involved in Development Activities

The census data indicates that there is less involvement of the people in community development activities organized by the municipality. Out of the total households, only 12% household family members have involved in development activities including voluntary involvement in management and organization of various programs, labour contribution as well as cash donation/contribution to programs and activities.

Higher proportion of households in wards 13, 14, 6 and 11 are actively involved in such development activities conducted by the municipality.

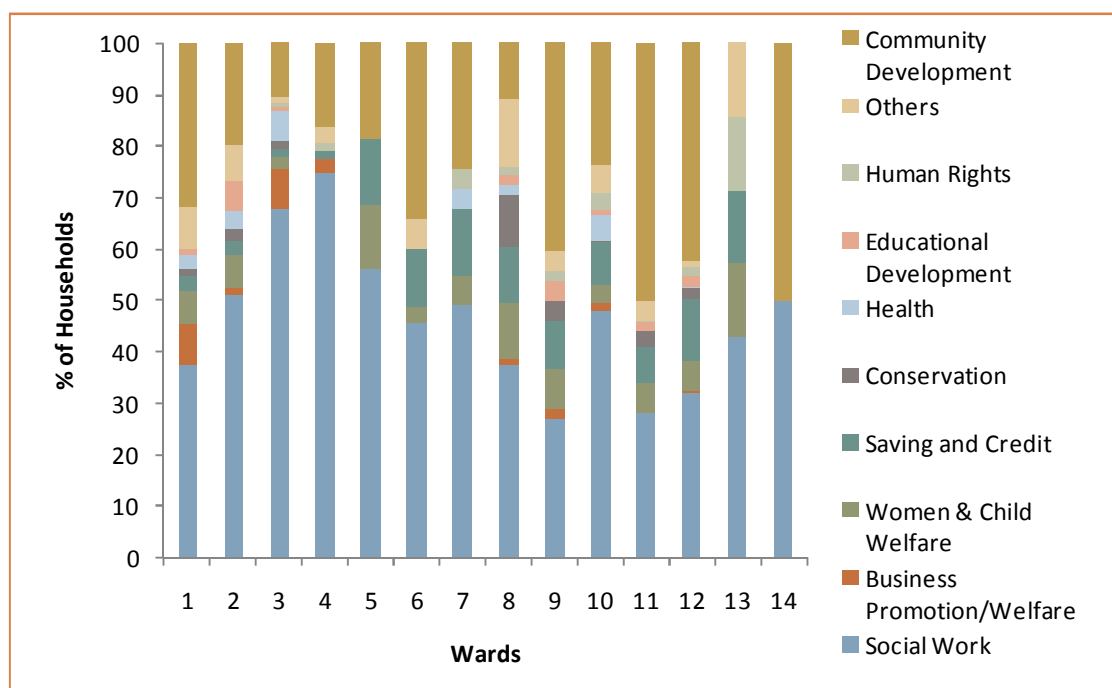


Figure 468 Households involvement in various community development activities/organization by wards

9.2 Households Affiliated to Community Organizations

The census survey shows that of the total family members of 7% households are affiliated in various Community Based Organizations and involved in various activities of such organizations. Higher proportion of households in wards 12, 2, 3, 11 and 1 are affiliated and involved in various community development activities of CBOs. The majority of household members are involved in Tol Blkash Sanstha (Area Development Organization).

Table 28 Households involved in different types of community/social organizations

Activities/Organization	Household	
	No.	%
Social Works	556	44.84
Business Promotion/welfare	27	2.18
Women and Child Welfare	68	5.48
Community Development	340	27.42
Saving and Credit Group	89	7.18
Conservation	29	2.34
Health	30	2.42
Educational Development	23	1.85
Human Rights	20	1.61
Others	58	4.68
Total	1240	100.0

The census survey shows that majority family members of 44.84% households are involved in social works followed by 27.42% households are in community development and 7.18% households in saving and credit activities. Involvement of households in other community activities are 5.48% in women and child welfare, 2.42% in health and sanitation, 2.34% in various conservation activities and 2.18% in business promotion and welfare activities.

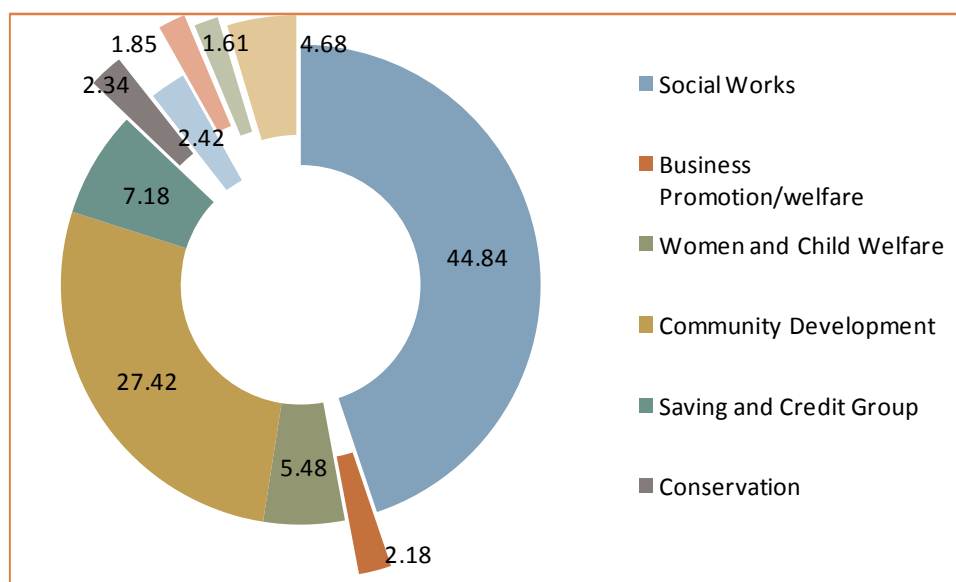


Figure 49 47 Households involvement in community development activities

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Appendix A Summary tables

Table Appendix A Household head by caste/ethnicity and wards

Caste/Ethnicity	Wards														Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
Baitha	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Bangali	0	3	1	0	0	0	0	0	0	0	0	0	0	1	5
Baniya	1	1	2	4	0	0	0	0	0	1	0	1	0	0	10
Barali	0	0	1	1	0	0	0	0	0	0	1	0	0	0	3
Baram	0	0	0	1	0	0	0	0	0	3	5	0	0	0	9
Bardewa	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Bote	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Brahman	339	511	89	446	594	845	754	650	660	1169	1026	670	390	278	8421
Century	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Chacha	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Chamar	0	1	1	0	0	0	0	0	0	0	1	0	0	0	3
Chepang	26	1	0	0	1	0	0	2	0	0	3	0	0	0	33
Chhetri	127	160	24	128	112	98	167	92	89	264	369	273	76	94	2073
Christian	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Chuneli	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
Dalit	6	15	5	4	2	0	1	3	3	3	4	3	2	0	51
Damai	25	25	1	21	23	6	19	41	14	16	80	12	16	26	325
Darai	0	1	0	1	0	2	0	21	46	4	13	39	0	1	128
Desi	0	0	2	1	0	0	0	0	0	4	0	0	1	0	8
Dhami	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Dura	0	0	0	0	0	2	1	1	10	3	1	0	0	0	18
Gadhar	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
Gajamer	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Gandharva	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1

Socio-Economic Profile &
Urban Indicators of Bharatpur Municipality

Caste/Ethnicity	Wards														Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
Gautam	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Ghandhari	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Ghantagi	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Gharti	1	0	0	0	1	0	0	0	0	1	1	6	1	4	15
Gupta	2	9	7	9	0	0	0	0	0	0	1	0	0	0	28
Gurung	81	166	2	29	52	39	125	80	108	146	270	49	22	11	1180
Haluwai	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Hindu	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Jaishwal	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Kaji	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Kalwar	0	1	1	0	1	0	0	0	0	0	0	0	0	0	3
Kamar	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Kami	37	75	6	10	39	4	4	62	38	15	134	45	13	30	512
Kanu	0	3	2	3	0	0	0	0	0	1	0	0	0	0	9
Kayestha	0	0	0	1	0	0	0	0	1	1	1	0	0	0	4
Khakurel	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Khaniya	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Khonar	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Koiri	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Kumal	1	4	0	1	6	4	0	7	3	1	250	17	0	1	295
Kunwar	0	0	0	1	0	1	0	1	0	0	1	0	0	0	4
Kurmi	0	3	1	4	0	0	0	0	0	0	0	0	0	0	8
Kusuwaha	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Limbu	0	2	0	0	2	1	0	0	2	3	3	5	0	1	19
Madeshi	0	1	2	3	3	1	0	1	1	2	0	0	0	0	14
Magar	51	91	14	27	54	15	85	68	51	75	125	76	9	14	755

Socio-Economic Profile &
Urban Indicators of Bharatpur Municipality

Caste/Ethnicity	Wards														Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
Maheswori	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Majhi	1	0	0	1	3	0	0	1	0	0	0	0	0	0	6
Marwadi	3	3	15	6	0	0	0	0	2	3	0	0	0	0	32
Matawali	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Mijar	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3
Mukhiya	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
Muslim	4	22	20	25	2	0	2	0	4	17	17	4	0	0	117
Narel	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Newar	154	370	186	224	76	16	28	37	56	202	198	145	49	37	1778
Pakurel	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Parihast	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Parkar	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Paswan	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2
Patel	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Rahul	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Rai	10	15	0	3	5	0	3	1	5	10	9	5	2	0	68
Rajak	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Rathi	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Rauniyar	0	0	0	4	0	0	0	0	0	1	0	0	0	0	5
Regmi	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Roy	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Ruchai	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Ruwali	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Sadasankar	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Sadhu	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Saha	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Sahani	0	0	0	1	0	0	0	0	1	0	0	0	0	1	3
Salma	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Sanyasi	6	9	1	8	19	4	8	7	7	11	26	8	6	4	124
Sarki	2	2	0	4	3	10	0	4	4	3	3	0	3	3	41
Shah	2	3	9	10	0	0	0	0	1	0	4	1	2	1	33
Sherpa	0	0	0	0	0	0	0	0	0	1	2	0	0	0	3

Socio-Economic Profile &
Urban Indicators of Bharatpur Municipality

Caste/Ethnicity	Wards														Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
Sinduri	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Sirpali	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Sonar	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Subba	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
Sunuwar	0	6	0	1	2	1	0	1	2	1	4	2	0	0	20
Tamang	41	76	5	71	29	8	70	17	33	116	279	55	19	74	893
Thakali	0	2	1	0	0	0	3	1	3	7	1	0	1	0	19
Thakur	2	1	0	2	0	2	0	0	2	0	2	0	0	0	11
Thakuri	3	17	1	6	7	6	12	3	13	22	36	9	9	33	177
Tharu	8	24	5	18	3	4	5	44	15	14	8	9	3	4	164
Tilija	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Yadav	0	0	1	0	0	0	2	1	2	0	0	3	1	0	10
Total	935	1636	408	1088	1039	1071	1289	1148	1180	2126	2894	1437	626	619	17496

Table Appendix A Population by Sex and Age Group

Age Group	Male		Female		Total	
	No.	%	No.	%	No.	%
0-4	2495	5.65	2010	4.78	4505	5.23
5-9	3681	8.34	3619	8.60	7480	8.68
10-14	5121	11.61	4871	11.57	9992	11.59
15-19	4997	11.33	4897	11.64	9894	11.48
20-24	4506	10.21	4904	11.65	9410	10.92
25-29	3792	8.59	4098	9.74	7890	9.15
30-34	3744	8.49	3612	8.58	7356	8.53
35-39	3394	7.69	3367	8.00	6761	7.84
40-44	3144	7.13	2687	6.38	5831	6.76
45-49	2341	5.31	2016	4.79	4357	5.05
50-54	2013	4.56	1663	3.95	3676	4.26
55-59	1229	2.79	1081	2.57	2310	2.68
60-64	1231	2.79	1150	2.73	2381	2.76
65-69	665	1.51	634	1.51	1299	1.51
70-74	710	1.61	606	1.44	1316	1.53
75 and Above	880	1.99	870	2.07	1750	2.03
Total	44123	100.00	42085	100.00	86208	100.00

Table Appendix A Households size by wards

Wards	Family Size						Total
	1-2	2-4	4-6	6-8	8-10	above 10	
1	210	298	272	110	26	19	935
2	88	653	626	167	74	28	1636
3	35	130	153	43	33	14	408
4	87	439	407	102	40	13	1088
5	89	396	419	103	22	10	1039
6	71	349	444	127	41	39	1071
7	88	544	498	105	39	15	1289
8	85	432	435	123	52	21	1148
9	68	460	446	127	55	24	1180
10	156	870	759	203	96	42	2126
11	216	1186	1119	274	61	38	2894
12	89	633	495	145	64	11	1437
13	35	223	250	68	34	16	626
14	44	206	233	86	27	23	619
Total	1361	6819	6556	1783	664	313	17496

Table Appendix A Household Head by sex

Wards	Male		Female		Total	
	No	%	No	%	No	%
1	773	82.67	162	17.33	935	5.34
2	1448	88.51	188	11.49	1636	9.35
3	359	87.99	49	12.01	408	2.33
4	975	89.61	113	10.39	1088	6.22
5	936	90.09	103	9.91	1039	5.94
6	957	89.36	114	10.64	1071	6.12
7	1141	88.52	148	11.48	1289	7.37
8	1000	87.11	148	12.89	1148	6.56
9	1045	88.56	135	11.44	1180	6.74
10	1858	87.39	268	12.61	2126	12.15
11	2634	91.02	260	8.98	2894	16.54
12	1240	86.29	197	13.71	1437	8.21
13	553	88.34	73	11.66	626	3.58
14	549	88.69	70	11.31	619	3.54
Total	15468	88.41	2028	11.59	17496	100.00

Table Appendix A Literacy status and level of education of population by sex and wards

Level of educa- tion/Gender	Ward														Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
A. Female															
Above master	0	1	3	0	0	0	0	0	0	1	2	1	0	0	8
Bachelor	66	270	117	165	115	182	202	104	171	496	239	241	76	69	2513
Literate only	82	81	34	250	36	107	230	98	251	121	30	136	17	24	1497
Illiterate	499	799	115	369	567	557	506	595	417	941	1941	507	398	434	8645
Intermediate	156	462	163	340	241	317	434	243	329	796	494	429	180	136	4720
Lower Secondary	201	350	80	182	208	212	264	262	250	367	652	295	138	166	3627
Master	10	51	29	26	20	20	38	19	36	121	36	39	17	9	471
N/A	14	0	9	27	19	15	1	7	3	2	8	0	0	0	105
NAP	51	121	39	61	63	68	63	59	79	95	183	84	48	38	1052
Primary	496	808	191	465	475	488	510	684	529	836	1381	683	297	318	8161
Secondary	193	431	96	267	290	312	318	374	337	471	691	435	174	174	4563
SLC passed	247	666	192	385	374	468	494	354	470	901	1121	542	275	234	6723
Total	2015	4040	1068	2537	2408	2746	3060	2799	2872	5148	6778	3392	1620	1602	42085

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Level of education/Gender	Ward														Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
B. Male															
Above master	1	7	6	3	2	3	3	3	2	13	6	8	2	3	62
Bachelor	105	483	177	335	233	325	435	272	360	913	508	516	159	132	4953
Literate Only	62	47	18	184	39	82	128	90	166	89	22	95	5	15	1042
Illiterate	266	353	56	222	310	271	256	260	227	432	1041	234	193	298	4419
Intermediate	203	640	213	457	375	473	461	326	406	899	663	513	225	178	6032
Lower Secondary	234	351	68	209	194	190	215	265	232	344	735	266	133	134	3570
Master	24	145	40	80	70	113	167	88	146	354	182	181	87	65	1742
N/A	8	0	2	24	29	12	3	7	7	6	7	1	0	0	106
NAP	73	124	39	71	70	84	82	100	102	163	236	102	43	62	1351
Primary	569	841	189	421	517	501	496	719	566	729	1479	619	287	311	8244
Secondary	244	474	103	260	265	301	312	399	332	488	675	413	207	174	4647
SLC passed	308	746	206	444	436	534	601	425	559	943	1478	637	325	313	7955
Total	2097	4211	1117	2710	2540	2889	3159	2954	3105	5373	7032	3585	1666	1685	44123
Total (A+B)	4112	8251	2185	5247	4948	5635	6219	5753	5977	10521	13810	6977	3286	3287	86208

Table Appendix A Households with different construction types by wards

Ward	RCC Frame Structure		Cement Ma-sonry		Mud Maso-nry/Wooden wall		Temporary Construction		Wooden Matt wall		Total
	No.	%	No.	%	No.	%	No.	%	No.	%	
1	371	39.7	311	33.3	107	11.4	140	15	6	0.6	935
2	1182	72.2	310	18.9	63	3.9	73	4.5	8	0.5	1636
3	320	78.4	69	16.9	12	2.9	2	0.5	5	1.2	408
4	773	71	212	19.5	41	3.8	48	4.4	14	1.3	1088
5	614	59.1	332	32	29	2.8	52	5	12	1.2	1039
6	690	64.4	294	27.5	70	6.5	13	1.2	4	0.4	1071
7	852	66.1	379	29.4	24	1.9	26	2	8	0.6	1289
8	480	41.8	452	39.4	135	11.8	11	1	70	6.1	1148
9	873	74	207	17.5	22	1.9	70	5.9	8	0.7	1180
10	1685	79.3	354	16.7	52	2.4	13	0.6	22	1	2126
11	1132	39.1	1116	38.6	290	10	354	12.2	2	0.1	2894
12	973	67.7	360	25.1	48	3.3	36	2.5	20	1.4	1437
13	278	44.4	249	39.8	53	8.5	14	2.2	32	5.1	626
14	237	38.3	253	40.9	75	12.1	11	1.8	43	6.9	619
Total	10460	59.8	4898	28	1021	5.8	863	4.9	254	1.5	17496

Table Appendix A Household with electricity and telephone connectivity by wards

Ward	Electricity Connection		Telephone Con-nection		Households
	No.	%	No.	%	
1	818	87.5	252	27	935
2	1615	98.7	945	57.8	1636
3	408	100	332	81.4	408
4	1080	99.3	643	59.1	1088
5	1012	97.4	445	42.8	1039
6	1046	97.7	529	49.4	1071
7	1280	99.3	563	43.7	1289
8	1127	98.2	318	27.7	1148
9	1170	99.2	546	46.3	1180
10	2120	99.7	1512	71.1	2126
11	2657	91.8	695	24	2894
12	1415	98.5	735	51.1	1437
13	558	89.1	99	15.8	626
14	536	86.6	115	18.6	619
Total	16842	96.3	7729	44.2	17496

Table Appendix A Household status with different place for washing dish by wards

Ward	Full Plumbed Kitchen		Tap at Sorter Height		No Tap Inside kitchen for washing dish		Place for washing dish outside Kitchen		Place for washing dish without tap outside kitchen		No Place for washing dish		Households
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
1	74	7.9	85	9.1	428	45.8	168	18	63	6.7	117	10.4	935
2	532	33	270	16.5	310	18.9	300	18.3	119	7.3	105	6.4	1636
3	122	30	99	24.3	64	15.7	49	12	45	11	29	7.1	408
4	448	41	123	11.3	244	22.4	184	16.9	67	6.2	22	2.02	1088
5	187	18	23	2.2	372	35.8	263	25.3	116	11.2	78	7.5	1039
6	43	4	274	25.6	42	3.9	509	47.5	178	16.6	25	2.3	1071
7	455	35	169	13.1	337	26.1	180	14	133	10.3	15	1.2	1289
8	124	11	206	17.9	341	29.7	88	7.7	165	14.4	224	19.51	1148
9	476	40	89	7.5	444	37.6	90	7.6	52	4.4	29	2.5	1180
10	767	36	275	12.9	285	13.4	472	22.2	191	9	137	6.4	2126
11	431	15	32	1.1	495	17.1	906	31.3	194	6.7	835	28.9	2894
12	402	28	300	20.9	283	19.7	165	11.5	117	8.1	170	11.8	1437
13	5	0.8	108	17.3	14	2.2	423	67.6	71	11.3	5	0.8	626
14	23	3.7	68	11	41	6.6	340	54.9	125	20.2	22	3.6	619
Total	4089	23	2121	12.1	3700	21.1	4137	23.6	1636	9.4	1813	10.36	17496

Table Appendix A Household using different types of fuel for cooking by wards (1)

Fuel Types	Ward															
	1	%	2	%	3	%	4	%	5	%	6	%	7	%	8	%
Fuel wood	534	57.1	246	15.0	16	3.9	126	11.6	278	26.8	211	19.7	183	14.2	438	38.2
Bio-Gas	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1	6	0.6	3	0.2	8	0.7
Electricity	1	0.1	1	0.1	1	0.2	0	0.0	7	0.7	5	0.5	1	0.1	0	0.0
Gas	180	19.3	509	31.1	198	48.5	289	26.6	343	33.0	511	47.7	373	28.9	323	28.1
Kerosene	2	0.2	5	0.3	1	0.2	2	0.2	3	0.3	0	0.0	0	0.0	2	0.2
Straw	1	0.1	1	0.1	0	0.0	4	0.4	0	0.0	0	0.0	0	0.0	12	1.0

Multiple Sources

(More than 3 items) 73 7.8 681 41.6 162 39.7 565 51.9 230 22.1 51 4.8 580 45.0 76 6.6

Kerosene And Woods 8 0.9 19 1.2 0 0.0 38 3.5 8 0.8 81 7.6 17 1.3 22 1.9

Gas And Woods 131 14.0 165 10.1 25 6.1 57 5.2 165 15.9 197 18.4 119 9.2 259 22.6

Gas And Kerosene 5 0.5 4 0.2 5 1.2 7 0.6 1 0.1 2 0.2 7 0.5 4 0.3

Wood and Biogas 0 0.0 5 0.3 0 0.0 0 0.0 3 0.3 7 0.7 6 0.5 4 0.3

Table Appendix A Household using different types of fuel for cooking by wards (2)

Fuel Types	Ward													
	8	%	9		10	%	11	%	12	%	13	%	14	%
Fuel wood	438	38.2	197	5.74	122	5.74	1436	49.62	275	19.14	221	35.3	289	46.69
Bio-Gas	8	0.7	1	0	0	0	0	0	3	0.209	24	3.834	22	3.554
Electricity	0	0	2	0.05	1	0.05	2	0.069	2	0.139	1	0.16	0	0
Gas	323	28.1	525	45.3	963	45.3	494	17.07	592	41.2	168	26.84	120	19.39
Kerosene	2	0.17	1	0.19	4	0.19	4	0.138	2	0.139	0	0	0	0
Straw	12	1.05	1	0	0	0	0	0	5	0.348	2	0.319	0	0
Multiple Sources (More than 3 items)	76	6.62	319	34.1	724	34.1	544	18.8	267	18.58	16	2.556	30	4.847
Kerosene And Woods	22	1.92	2	0.61	13	0.61	23	0.795	7	0.487	97	15.5	30	4.847
Gas And Woods	259	22.6	130	13.2	281	13.2	382	13.2	268	18.65	94	15.02	112	18.09
Gas And Kerosene	4	0.35	2	0.71	15	0.71	5	0.173	3	0.209	0	0	0	0
Wood and Biogas	4	0.35	0	0.14	3	0.14	4	0.138	13	0.905	3	0.479	16	2.585

Table Appendix A Households with different classified assets by wards

Ward	Refrigerator		Television		Mobile Phone		Computer		Internet Access		Pickup Truck/Micro bus		Motor-cycle/Scoter		Bicycle		Car/Jeep/Van /Tractor/Auto rikshwa		Rikshwa		Others		Total households
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
1	251	26.8	522	55.8	54	5.8	49	5.2	14	1.5	0	0	158	16.9	26	2.8	10	1.1	8	0.9	6	1	935
2	778	47.6	1403	85.8	473	29	239	15	50	3.1	0	0	496	30.3	175	11	27	1.7	17	1	2	0	1636
3	269	65.9	386	94.6	1084	266	118	29	31	7.6	2	0	208	51	11	2.7	32	7.8	3	0.7	3	1	408
4	440	40.4	942	86.6	378	35	157	14	33	3	0	0	353	32.4	80	7.4	22	2	6	0.6	1	0	1088
5	227	21.8	829	79.8	698	67	61	5.9	12	1.2	0	0	196	18.9	211	20	12	1.2	4	0.4	4	0	1039
6	261	24.4	868	81	567	53	55	5.1	8	0.7	0	0	266	24.8	192	18	9	0.8	2	0.2	3	0	1071
7	352	27.3	1068	82.9	658	51	125	9.7	11	0.9	1	0	301	23.4	151	12	7	0.5	0	0	3	0	1289
8	167	14.5	921	80.2	784	68	54	4.7	9	0.8	1	0	197	17.2	108	9.4	4	0.3	2	0.2	23	2	1148
9	327	27.7	1035	87.7	616	52	95	8.1	9	0.8	0	0	216	18.3	149	13	6	0.5	4	0.3	2	0	1180
10	987	46.4	1900	89.4	873	41	400	19	80	3.8	2	0	721	33.9	324	15	39	1.8	14	0.7	3	0	2126
11	493	17	2103	72.7	1433	50	136	4.7	29	1	0	0	325	11.2	398	14	16	0.6	13	0.4	7	0	2894
12	489	34	1283	89.3	1367	95	205	14	57	4	0	0	361	25.1	162	11	12	0.8	5	0.3	31	2	1437
13	113	18.1	474	75.7	960	153	35	5.6	7	1.1	0	0	149	23.8	150	24	6	1	3	0.5	0	0	626
14	80	12.9	403	65.1	272	44	31	5	4	0.6	0	0	106	17.1	123	20	8	1.3	2	0.3	0	0	619
Total	5234	29.9	14137	80.8	10217	58	1760	10	354	2	6	0	4053	23.2	2260	13	210	1.2	83	0.5	88	1	17496

Table Appendix A Occupational status of 15 years and above female population

Ward	Agriculture	Extended economic enterprises	Household work	Livestock farming	Business	Service	Student	Wage/Labor	Other	Unemployed	NAP/NA
1	79	0	195	1	132	49	206	17	47	687	26
2	23	0	918	5	190	186	538	20	10	1055	21
3	1	0	149	0	128	33	163	1	0	296	12
4	12	0	542	0	180	80	370	6	2	657	15
5	82	0	16	0	64	82	329	15	3	1148	12
6	118	0	130	0	20	56	411	4	3	1235	25
7	59	0	365	0	64	124	473	3	0	1135	16
8	279	0	213	1	32	86	291	14	3	1052	27
9	47	0	25	0	40	100	425	7	6	1412	21
10	77	0	911	6	195	365	862	15	7	1460	53
11	408	1	352	4	232	299	770	224	4	2351	34
12	102	0	355	1	132	195	481	19	10	1168	39
13	73	0	407	0	8	54	206	2	4	412	16
14	54	0	380	0	14	47	192	4	4	436	15
Total	1414	1	4958	18	1431	1756	5717	351	103	14504	332

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Table Appendix A Occupational status of 15 years and above male population

Ward	Agriculture)	Extended economic enterprises	Household work	Livestock farming	Business	Service	Student	Wages/Labor	Other	Unemployed	NAP
1	161	0	6	2	368	327	223	144	61	133	17
2	74	2	24	8	836	1007	627	108	113	216	25
3	15	0	0	0	464	112	167	7	3	58	4
4	69	1	9	5	784	431	433	111	15	145	14
5	314	0	2	2	226	611	369	110	54	105	31
6	479	2	2	1	200	713	506	27	44	96	21
7	366	0	9	0	241	905	515	50	34	173	25
8	640	0	6	0	128	646	365	109	48	96	22
9	302	0	0	1	201	866	458	94	31	173	21
10	261	0	34	4	629	1535	1000	72	86	368	39
11	534	1	19	9	502	2015	877	517	40	306	26
12	258	0	10	0	319	1058	582	104	51	200	32
13	295	0	3	0	91	453	219	36	40	55	15
14	296	0	4	2	80	417	230	64	45	63	11
Total	4064	6	128	34	5069	11096	6571	1553	665	2187	303

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Table Appendix A Household annual income level by wards

Wards	Up to 23,496	%	23,496- 60,000	%	60,000- 1,00,000	%	1,00,000- 5,00,000	%	Above 5,00,000	%	NA	%	Total HHs
1	49	5.24	386	41.28	199	21.28	265	28.34	15	1.60	21	2.25	935
2	26	1.59	235	14.36	330	20.17	940	57.46	81	4.95	24	1.47	1636
3	1	0.25	24	5.88	51	12.50	272	66.67	37	9.07	23	5.64	408
4	13	1.19	138	12.68	185	17.00	702	64.52	39	3.58	11	1.01	1088
5	28	2.69	243	23.39	292	28.10	424	40.81	28	2.69	24	2.31	1039
6	59	5.51	203	18.95	305	28.48	456	42.58	18	1.68	30	2.80	1071
7	14	1.09	244	18.93	326	25.29	630	48.88	39	3.03	36	2.79	1289
8	17	1.48	288	25.09	302	26.31	474	41.29	19	1.66	48	4.18	1148
9	13	1.1	275	23.31	281	23.81	520	44.07	43	3.64	48	4.07	1180
10	22	1.03	239	11.24	386	18.16	1329	62.51	104	4.89	46	2.16	2126
11	47	1.62	673	23.26	832	28.75	1231	42.54	36	1.24	75	2.59	2894
12	11	0.77	210	14.61	321	22.34	807	56.16	32	2.23	56	3.90	1437
13	36	5.75	197	31.47	196	31.31	187	29.87	3	0.48	7	1.12	626
14	51	8.24	169	27.30	170	27.46	201	32.47	10	1.62	18	2.91	619
Total	387	2.21	3524	20.14	4176	23.87	8438	48.23	504	2.88	467	2.67	17496

Table Appendix A Households expenditure level by wards

Ward	Up to 2000		2000-3500		3500-5000		5500-6500		>6500		Total HHs
	No.	%	No.	%	No.	%	No.	%	No.	%	
1	99	10.6	152	16.3	152	16.3	141	15.1	391	41.8	935
2	26	1.6	101	6.2	242	14.8	306	18.7	961	58.7	1636
3	16	3.9	7	1.7	20	4.9	29	7.1	336	82.4	408
4	12	1.1	41	3.8	70	6.4	116	10.7	849	78	1088
5	16	1.5	48	4.6	122	11.7	235	22.6	618	59.5	1039
6	22	2.1	54	5	150	14	264	24.6	581	54.2	1071
7	12	0.9	13	1	80	6.2	208	16.1	976	75.7	1289
8	43	3.7	86	7.5	205	17.9	261	22.7	553	48.2	1148
9	13	1.1	11	0.9	62	5.3	170	14.4	924	78.3	1180
10	26	1.2	63	3	177	8.3	278	13.1	1582	74.4	2126
11	79	2.7	208	7.2	573	19.8	726	25.1	1308	45.2	2894
12	37	2.6	33	2.3	128	8.9	215	15	1024	71.3	1437
13	14	2.2	57	9.1	133	21.2	155	24.8	267	42.7	626
14	14	2.3	56	9	117	18.9	158	25.5	274	44.3	619
Total	429	2.5	930	5.3	2231	12.8	3262	18.6	10644	60.8	17496

Table Appendix A Mean/median income/expenditure of the household by wards

Ward	Income		Expenditure	
	Mean	Median	Mean	Median
1	8976	5500	6863	566.7
2	15061	10000	8379	7333
3	21520	15000	13123	10667
4	15410	12000	10285	9417
5	11322	8000	8182	7417
6	10137	8333	7642	6917
7	12452	9000	9237	8333
8	10298	8333	6975	6500
9	11712	8333	9810	9417
10	16009	12000	10470	8750
11	10067	8000	7054	6350
12	13341	10000	9257	8500
13	7836	6667	6582	6000
14	8906	6667	6749	6292
Total	12326	9000	8523	7500

Table Appendix A Households with meter connectivity by wards

Ward	Meter connection status					Total
	NAP		Yes		No	
	No.	No.	%	No	%	
1	696	230	96.23	9	3.77	239
2	509	1105	98.05	22	1.95	1127
3	184	221	98.66	3	1.34	224
4	1055	33	100	0	0	33
5	998	37	90.24	4	9.76	41
6	1010	54	88.52	7	11.48	61
7	1109	172	95.56	8	4.44	180
8	1130	16	88.89	2	11.11	18
9	795	383	99.48	2	0.52	385
10	525	1572	98.19	29	1.81	1601
11	2663	223	96.53	8	3.47	231
12	1039	383	96.23	15	3.77	398
13	626	0	0	0	0	0
14	619	0	0	0	0	0
Total		4429	97.6	109	2.4	4538

Table Appendix A Condition of meter connected by households by wards

Ward	Good		Bad		Total	NAP	Total
	No.	%	No.	%			
1	226	94.56	13	194.56	239	696	935
2	1080	95.83	47	4.17	1127	509	1636
3	221	98.66	3	1.34	224	184	408
4	31	93.94	2	6.06	33	1055	1088
5	37	90.24	4	9.76	41	998	1039
6	49	80.32	12	19.68	61	1010	1071
7	170	94.44	10	5.56	180	1109	1289
8	16	88.89	2	11.11	18	1130	1148
9	381	98.96	4	1.04	385	795	1180
10	1493	93.25	108	6.75	1601	525	2126
11	219	94.8	12	5.2	231	2663	2894
12	383	96.23	15	3.77	398	1039	1437
13	0	0	0	0	0	626	626
14	0	0	0	0	0	619	619
Total	4306	94.89	232	5.11	4538	12958	17496

Table Appendix A Household with/without toilet facility by wards

Wards	Without Toilet		With Toilet		Total HHs
	No.	%	No.	%	
1	134	14.33	801	85.67	935
2	25	1.53	1611	98.47	1636
3	1	0.25	407	99.75	408
4	5	0.46	1083	99.54	1088
5	22	2.12	1017	97.88	1039
6	2	0.19	1069	99.81	1071
7	8	0.62	1281	99.38	1289
8	9	0.73	1139	99.27	1148
9	6	0.51	1174	99.49	1180
10	5	0.24	2121	99.76	2126
11	205	7.08	2689	92.92	2894
12	24	1.67	1413	98.33	1437
13	0	0	626	100	626
14	3	0.48	616	99.52	619
Total	449	2.57	17047	97.43	17496

Table Appendix A Households with different types of toilets by wards

Ward	Types of toilet										Total
	Pit Latrine		Sulabh		Ecosan		Cistern Flush		Others		
	No.	%	No.	%	No.	%	No.	%	No.	%	
1	73	8.8	711	85.7	0	0	46	5.5	0	0	830
2	121	6.9	1407	80.7	2	0.1	214	12.3	0	0	1744
3	3	0.7	384	85.7	0	0.0	61	13.6	0	0	448
4	54	4.8	998	87.8	0	0.0	85	7.5	1	0.9	1137
5	53	5.1	961	92.5	0	0.0	25	2.4	0	0	1039
6	299	27	769	70.4	0	0.0	23	2.1	1	0.1	1092
7	35	2.7	1241	94.7	0	0.0	33	2.5	1	0.1	1310
8	119	10	999	85.0	1	0.1	57	4.9	0	0.0	1176
9	23	1.9	1118	91.6	0	0.0	80	6.6	0	0.0	1221
10	238	10	1765	75.1	6	0.3	342	14.6	0	0.0	2351
11	398	14	2287	80.3	0	0.0	163	5.7	1	0.1	2849
12	63	4.3	1217	82.4	4	0.3	193	13.1	0	0.1	1477
13	337	53	288	45.7	0	0.0	5	0.1	0	0.0	630
14	263	42	360	57.8	0	0.0	0	0.0	0	0.0	623
Total	2079	12	14505	80.9	13	0.1	1327	7.4	4	0.0	17928

(The number of toilets is more than total numbers of household due to some households have more than one toilet)

Table Appendix Place of waste water dispose by the households by wards

Ward	Septic Tank		Latrine Pit		Sewer Connection		Open Drain		Total HHs
	No.	%	No.	%	No.	%	No.	%	
1	556	59.5	45	4.8	40	4.3	294	31.4	935
2	1413	86.4	80	4.9	12	0.7	131	8.0	1636
3	300	73.5	10	2.5	63	15.4	35	8.8	408
4	972	89.3	30	2.8	13	1.2	73	6.7	1088
5	851	81.9	35	3.4	0	0.0	153	14.7	1039
6	225	21.0	13	1.2	0	0.0	833	77.8	1071
7	1215	94.3	18	1.4	0	0.0	56	42.7	1289
8	396	34.5	127	11.1	1	0.1	624	54.3	1148
9	1072	90.9	25	2.1	0	0.0	83	7.0	1180
10	1805	84.9	71	3.3	5	0.2	245	11.5	2126
11	1916	66.2	229	7.9	4	0.1	745	25.7	2894
12	805	56.0	135	9.4	9	0.6	488	34.0	1437
13	29	4.6	1	0.0	0	0.0	596	95.2	626
14	103	16.6	5	0.8	0	0.0	511	82.6	619
Total	11658	66.6	824	4.7	147	0.8	4867	27.8	17496

Table Appendix A Households willingness to pay for sewer connection by wards

Wards	Up to 50		51-100		101-150		151-200		201-250		Above 250		Free		Total
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
1	429	66	117	18	6	0.9	2	0.3	18	2.8	3	0.5	75	12	650
2	1131	80	112	7.93	24	1.7	28	2	22	1.6	19	1.3	77	5.5	1413
3	177	12.5	60	20.2	4	1.4	2	0.7	16	5.4	3	1	35	12	297
4	834	82	113	11.1	4	0.4	7	0.7	0	0	1	0.1	58	5.7	1017
5	746	77.6	188	19.6	20	2.1	0	0	0	0	0	0	7	0.7	961
6	152	56.1	86	31.7	0	0	2	0.7	2	0.7	11	4.1	18	6.6	271
7	1045	83.4	158	12.6	2	0.2	0	0	0	0	17	1.4	31	2.5	1253
8	886	90.8	62	6.35	0	0	1	0.1	0	0	0	0	27	2.8	976
9	1104	95.3	25	2.17	1	0.1	0	0	0	0	0	0	22	1.9	1152
10	1229	63.4	362	18.7	47	2.4	19	1	19	1	54	2.8	209	11	1939
11	2549	92.9	154	5.61	7	0.3	1	0	2	0.1	1	0	30	1.1	2744
12	1107	86	88	6.83	7	0.5	17	1.3	5	0.4	4	0.3	60	4.7	1288
13	20	52.6	11	29	0	0	0	0	0	0	0	0	7	18	38
14	107	91.5	7	5.98	0	0	0	0	0	0	1	0.9	2	1.7	117
Total	11516	81.6	1543	10.9	122	0.9	79	0.6	84	0.6	114	0.8	658	4.7	14116

Table Appendix A Solid waste management by wards (1)

Management	Wards													
	1	%	2	%	3	%	4	%	5	%	6	%	7	%
Buried	179	19.14	136	8.31	10	2.45	77	7.08	163	15.69	76	7.10	282	21.88
Buried and Burnt	65	6.95	230	14.06	28	6.86	25	2.30	100	9.62	25	2.33	77	5.97
Burnt	205	21.93	267	16.32	20	4.90	311	28.58	556	53.51	110	10.27	549	42.59
Burnt and Composting	36	3.85	122	7.46	0	0.00	40	3.68	96	9.24	777	72.55	124	9.62
Collected by Municipality	275	29.41	733	44.80	339	83.09	580	53.31	48	4.62	29	2.71	194	15.05
Composting	68	7.27	48	2.93	1	0.25	21	1.93	51	4.91	47	4.39	61	4.73
Thrown indiscriminately	107	11.44	100	6.11	10	2.45	34	3.13	25	2.41	7	0.65	2	0.16
Total	935	100	1636	100	408	100	1088	100	1039	100	1071	100	1289	100

Table Appendix A Solid waste management by wards (2)

Management	Wards														Total	
	8	%	9	%	10	%	11	%	12	%	13	%	14	%	No.	%
Buried	228	19.9	234	19.8	73	3.434	253	8.742	391	27.2	17	2.72	20	3.23	2139	12.2
Buried and Burnt	7	0.61	21	1.78	127	5.974	196	6.773	88	6.12	1	0.16	0	0	990	5.7
Burnt	504	43.9	816	69.2	187	8.796	1485	51.31	354	24.6	24	3.83	56	9.05	5444	31.1
Burnt and Composting	42	3.66	32	2.71	99	4.657	296	10.23	26	1.81	539	86.1	509	82.2	2738	15.6
Collected by Municipality	3	0.26	35	2.97	1471	69.19	415	14.34	424	29.5	0	0	8	1.29	4554	26
Composting	331	28.8	23	1.95	69	3.246	121	4.181	116	8.07	45	7.19	24	3.88	1026	5.9
Thrown indiscriminately	33	2.87	19	1.61	100	4.704	128	4.423	38	2.64	0	0	2	0.32	605	3.5
Total	1148	100	1180	100	2126	100	2894	100	1437	100	626	100	619	100	17496	100

Table Appendix A Households involvement in various community development activities/organization (1)

Activities	Wards															
	1		2		3		4		5		6		7		8	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Social Work	28	37.3	78	51.0	92	67.6	50	74.6	9	56.3	16	45.7	26	49.1	41	37.6
Business Promotion/Welfare	6	8.0	2	1.3	11	8.1	2	3.0	0	0.0	0		0	0.0	1	0.9
Women & Child Welfare	5	6.7	10	6.5	3	2.2	0	0.0	2	12.5	1	2.9	3	5.7	12	11.0
Community Development	24	32.0	30	19.6	14	10.3	11	16.4	3	18.8	12	34.3	13	24.5	12	11.0
Saving and Credit	2	2.7	4	2.6	2	1.5	1	1.5	2	12.5	4	11.4	7	13.2	12	11.0
Conservation	1	1.3	4	2.6	2	1.5	0	0.0	0	0.0	0		0		11	10.1
Health	2	2.7	5	3.3	8	5.9	0		0		0		2	3.8	2	1.8
Educational Development	1	1.3	9	5.9	1	0.7	0		0		0		0		2	1.8
Human Rights	0	0.0	0		1	0.7	1	1.5	0		0		2	3.8	2	1.8
Others	6	8.0	11	7.2	2	1.5	2	3.0	0		2	5.7	0		14	12.8
Total	75	100.0	153	100.0	136	100.0	67	100.0	16	100.0	35	100.0	53	100.0	109	100.0

Table Appendix A Households involvement in various community development activities/organization (2)

Activities	Wards													
	9		10		11		12		13		14		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Social Work	14	26.9	96	48.0	37	28.0	65	32.0	3	42.9	1	50.0	556	44.8
Business Promotion/Welfare	1	1.9	3	1.5	0	0.0	1	0.5	0	0.0	0	0.0	27	2.2
Women & Child Welfare	4	7.7	7	3.5	8	6.1	12	5.9	1	14.3	0	0.0	68	5.5
Community Development	21	40.4	47	23.5	66	50.0	86	42.4	0	0.0	1	50.0	340	27.4
Saving and Credit	5	9.6	16	8.0	9	6.8	24	11.8	1	14.3	0	0.0	89	7.2
Conservation	2	3.8	1	0.5	4	3.0	4	2.0	0		0		29	2.3
Health	0		10	5.0	0		1	0.5	0		0		30	2.4
Educational Development	2	3.8	2	1.0	2	1.5	4	2.0	0		0		23	1.9
Human Rights	1	1.9	7	3.5	1	0.8	4	2.0	1	14.3	0		20	1.6
Others	2	3.8	11	5.5	5	3.8	2	1.0	1	14.3	0	0.0	58	4.7
Total	52	100.0	200	100.0	132	100.0	203	100.0	7	100.0	2	100.0	1240	100.0

Appendix B Household census survey sample questionnaire form

Benchmarking Survey : Household Survey Questionnaire

HH Code : _____
Street Code : 2100
House No : 61

Name of Municipality : Bharatpur

20275

A. General

1. Ward Number 2 2. Street / Tole Name shanti tole 3. House Number 61
4. Name of Respondent Jaya Shrestha
5. Name of Head of Household : Devendra Shrestha 6. Ethnicity : Nepal
7. a) House Owned : Yes ☒ No ☐ b) House Renting: Yes ☐ No ☐
8. Total number of persons living at this residence _____

8.1. Family Details :

S. No	Name of Family Members	Relation ship to HH Head	Gender	Age	Where was the baby born?	Marital Status	Highest level of school completed?	Type of School / Collage	Currently enrolled in school/ college? (For age up to 24 only)	Main Occupation	Dis-ability
1	Devendra	H	M	54	Hom	M	SLC	Govt.	N/A	chickunghu	No
2	Jaya	wife	F	54	"	M	BLS	"	"	"	"
3	Sotendra	son	M	34	"	M	B.A	"	"	"	"
4	Arava	dot-in-law	F	25	"	M	graduate	"	"	"	"
5	Manisha	g. dot.	F	6	Kosmitu	Un	2	pvt.	Yes	school	"
6											
7											
8											
9											
10											

9. How many years at this residence? 6

10. Migration :

- 10.1) Migrated from : a) Same district ☐ b) Within Nepal ☐ c) Foreign ☐
10.2) When migrated 2060

11. Reasons for Migration :

- a) Better Job Opportunity ☐ b) Better Education Facility ☐ c) Better Economic Opportunity ☐
d) Security ☐ e) Basic Facilities ☒ f) Other _____

12. Health Status :

12.1 Have you given following vaccines to your child (below 5 years)? Use ✓ mark

Family SN	Age (Month)	BCG	DPT1	DPT2	DPT3	OPV1	OPV2	OPV3	Measles

12.2 Has any member of your family fallen sick during the last 1 year? a) Yes ☐ b) No ☒

12.3 Particulars of illness in the family during last 1 year

S. No.	Name of Family Members	Name of Disease (mention name & code as below)	Age	Sex	Treated	Death
1						
2						
3						
4						
5						

Waterborne Diseases : Diarrhea -1; Typhoid -2; Jaundice -3; Dysentery -4; Scabies -5; Worm -6; Other -7

12.4 During the last 12 months was there any death occurred in the household? Yes ☐ No ☒

12.5 If yes, give description

Family SN	Sex M/F	Age at death	Date when died (Year / Month)	Cause of Death

12.6 Do you know about HIV / AIDS? Yes ☒ No ☐

B) Physical Information

1. Land Holding

1.1 Do you have land? Yes ☐ No ☐

1.2 If yes how much total land do you have? 3 Ropani (Bigha, Kattha)

1.3 What type of land? Residential ☒ Agricultural ☐

2. Description of Building : (Including kitchen and toilet and store)

Built Year	Floor Numbers and their Areas in Sq: ft							Total floor Area
	1 st Floor	2 nd Floor	3 rd Floor	4 th Floor	5 th Floor	6 th Floor	7 th Floor	
2059	230 X 30	30 X 30						

3. Type of Construction :

- a) RCC Frame Structure ☒ b) Cement Masonry ☐ c) Mud masonry / wooden wall ☐
d) Wooden Matt wall ☐ e) Temporary ☐ f) Other ☐

4. Building Use :

- a) Residential ☒ b) Commercial ☐ c) Office ☐ d) Mixed ☐ e) Other ☐

5. Access to building :

5.1 Access to building:

- a) Black of top ☒ b) Gravel ☐ c) Earthen road ☐ d) Foot path ☐ e) No access ☐

5.2. Access width (20 m from the gate) :

6. Building has electrical connection? Yes ☒ No ☐ If yes, Amp 5

7. Building has telephone connection? Yes ☒ No ☐

8. Do you have separate Kitchen Room in your house? Yes ☒ No ☐

9. Types of Kitchen (circle in relevant types)

9.1 Place for washing dish	9.2 Type of fuel used
<input checked="" type="checkbox"/> a) Full plumbed Kitchen	<input checked="" type="checkbox"/> a) Gas
<input type="checkbox"/> b) Tap at Shorter height for washing dish inside Kitchen	<input checked="" type="checkbox"/> b) Electricity
<input type="checkbox"/> c) No tap for washing dish inside the Kitchen	c) Kerosene
<input type="checkbox"/> d) Place for washing dish with tap outside	d) Woods
<input type="checkbox"/> e) Place for washing dish without tap outside Kitchen	e) Straw
<input type="checkbox"/> f) No place for washing dish (bucket used for washing dish)	f) Other

C) Economic Information

1. Source of income for the household :

Source	Annual Income Rs
<input type="checkbox"/> Agriculture	
<input type="checkbox"/> Industry	
<input type="checkbox"/> Business	
<input type="checkbox"/> Services	
<input type="checkbox"/> Labor	
<input type="checkbox"/> Pension	
<input type="checkbox"/> House Rent	
<input type="checkbox"/> Live Stock & Products	→ 25000 X 12
<input type="checkbox"/> Remittance	
<input type="checkbox"/> Bank Interest	
<input type="checkbox"/> Other (specify)	
Total	

2. Other Assets of Household :

- | | |
|--|---|
| <input checked="" type="checkbox"/> a) Refrigerator | <input checked="" type="checkbox"/> b) Television |
| <input checked="" type="checkbox"/> c) Telephone | d) Mobile : Male Female |
| <input type="checkbox"/> e) Computer | f) Internet access |
| <input checked="" type="checkbox"/> g) Bicycle : Male Female | h) Motor cycle : Male Female |
| <input checked="" type="checkbox"/> i) Car : Male Female | j) Bus / Truck |
| <input type="checkbox"/> k) Rickshaw | l) Other |

3. Household Expenditures :

Types	Annual (Rs.)	Types	Annual (Rs.)
Food	10000 X 12	Medical treatment	3000 X 12
Clothes	4000	Transport	4000 X 12
House rent		Festival	15000
Education	800 X 12	Other	
Total		Total	

D) Water Supply

1. Water supply facility and status :

Type of water sources	Quality of water			Treatment				Adequacy Yes / No	Reliability Yes / No
	Good	Fair	Bad	Boiled	Water Guard	Filtered	Chlorine tablets		
Yard connection	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>		No	
Public stand post									
Hand pump									
Open Dug Well									
River / Stream									
Stone taps									
Kuwa / Khola									

2. How long does it take to go to source, get water and come back? Use \checkmark mark
 a) 0-5 minutes ☒ b) 5-15 minutes ☐ c) 15-30 minutes ☐ d) 30-60 minutes ☐ e) More than 60 minutes ☐

3. If piped service connection:

3.1) Water bill for last one year Rs. 400 X 2 3.2) When last bill paid (Date) 11/3-8

4. If piped service connection:

4.1) Is connection metered? Yes ☒ No ☐ 4.2) Does meter work? Yes ☒ No ☐

5. Average Daily Water Consumption (liter): 300

a) Household, 300 b) Animals c) Gardening d) Others e) Total

5.1. How much are you willing to pay for piped water connection? Rs. 300 / Month.

6. How much are you willing to pay per month for 300 liter/day \times 30 days: Rs. 300

E) Health / Sanitation

1. Number of HH Toilets and type

a) Pit latrine b) Sulabh c) Ecosan d) Cistern Flush 3 e) Other

2. Toilet Location: a) Inside house ☒ b) Outside house ☐

3. Wastewater Disposal:

a) Septic tank ☒ b) Latrine pit ☐ c) Sewer Connection ☐ d) Open Drain ☐

4. Do you want a sewer connection? a) Yes ☒ b) No ☐

5. If yes, how much are you willing to pay for sewer connection? Rs. 500 / Month

6. What percent of water bill would you be willing to pay for a sewer connection?

a) 75% of water bill ☐ b) 50% of water bill ☐ c) 25% of water bill ☒ d)

7. How is solid waste disposed?

a) Collected and buried ☐ b) Collected and burnt ☐ c) Thrown indiscriminately ☐
 d) Kept on roadside to be collected by Municipality ☐ e) Composting ☐

F. Community Development

1. Have you or any of your family members ever been involved in any development work conducted by Municipality?
 Yes ☐ No ☐

2. If Yes, in what capacity? a) Management ☐ b) Labor ☐ c) Donation ☐ d) Others

3. Are you or any of your family members affiliated to any organization functioning in the area? Yes ☐ No ☒

4. If yes, what is the name of the organization?

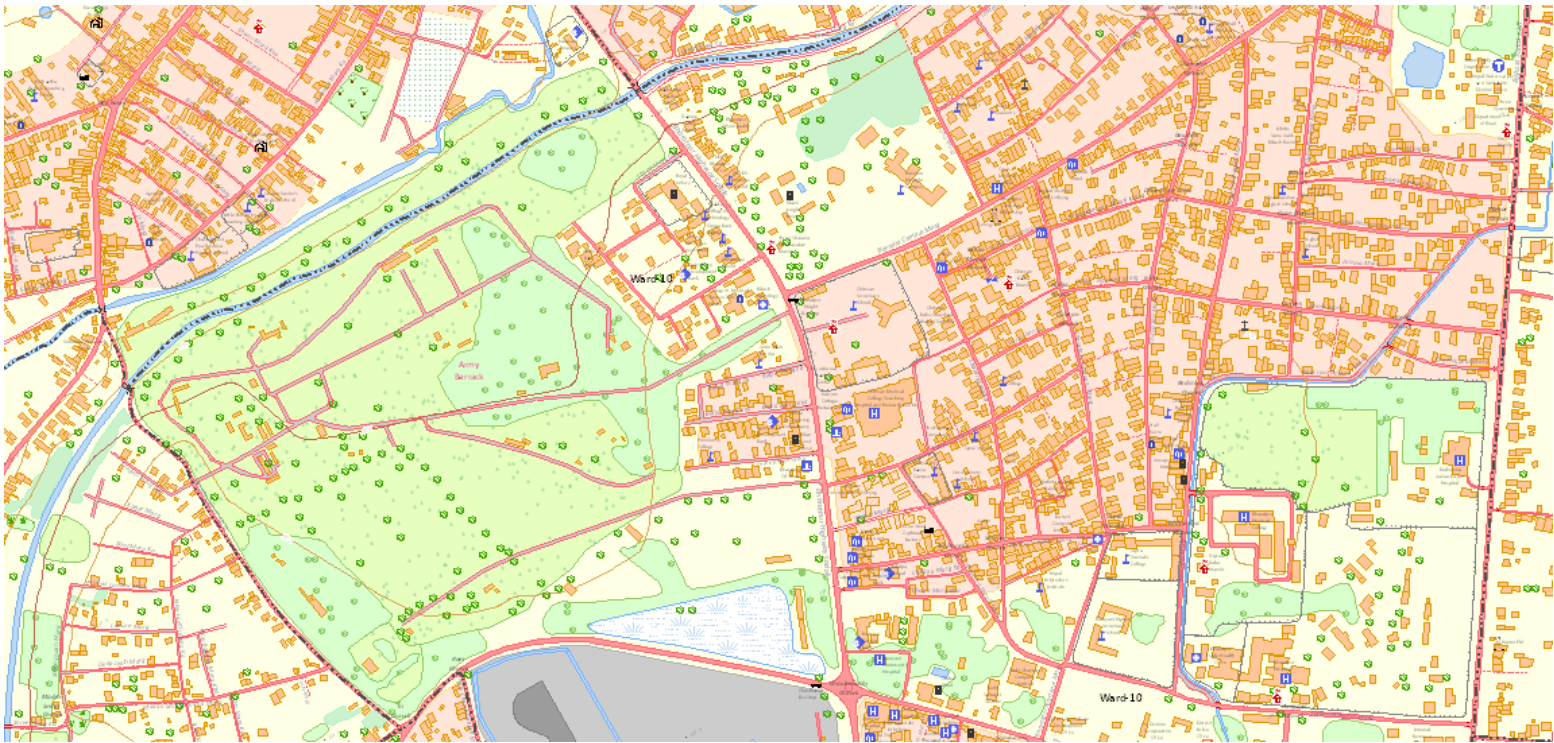
Name of the organization	Major Activities	Position / Status
1. <u>Tale Suther Samiti</u>	<u>Social work</u>	<u>General member</u>
2. <u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>

Name of Enumerator: Jeevan Singh

Date:

Jamuna

2064/6/6



Socio Economic Profile & Urban Indicators of Baratpur Municipality