

## CHAPTER – III

# METHODOLOGY

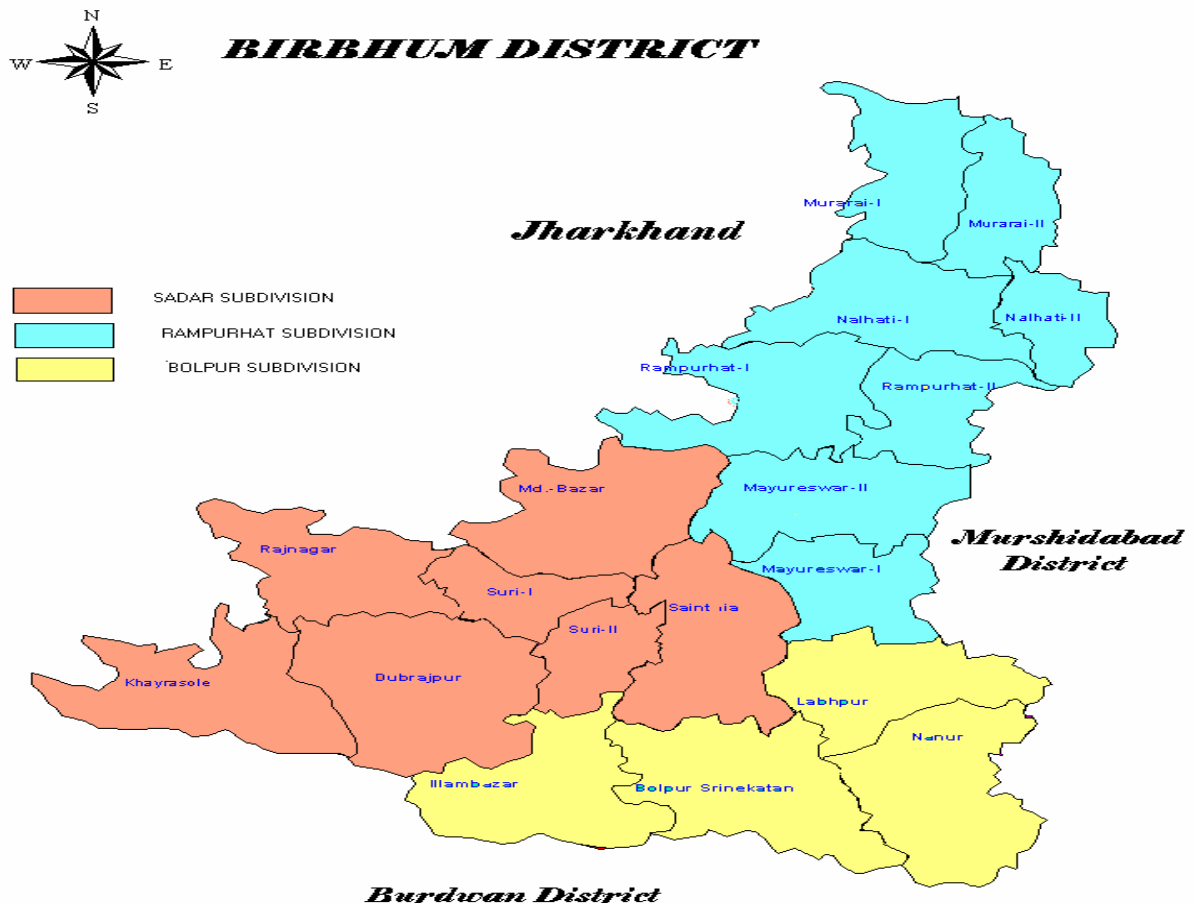
### 3.1.0. Introduction

This chapter represents a detail outline of the entire methodology of the study which includes description of universe, rationale of the study, research design, sources of data, sampling procedure, tools used for data collection and procedure of data analysis.

### 3.2.0. Universe the Study

Birbhum District of West Bengal is the universe of the present study. The district consists of three Sub-divisions namely, Sadar (Suri), Rampurhat and Bolpur. Rampurhat is the largest Sub-division and Bolpur is the smallest. The district has nineteen (19) Development Blocks out of which eight (8) are in Rampurhat Sub-division, Seven (7) are in Sadar Sub-Division and Four (4) are in Bolpur Sub-Division. Birbhum District is situated in the west side of West Bengal bound by Santhal Paraganas of Jharkhand State to its West and North, Murshidabad district in the East and North East and Burdwan district in the West (see Map 4 below).

**MAP 4**  
**Birbhum District**



Often called "The land of red soil" (Rahim and Sarkar, 2006), Birbhum is noted for its topography and its cultural heritage which is unique and is somewhat different from that of the other districts in West Bengal. Birbhum is primarily an agricultural district with around 75% of the population being dependent on agriculture. (Choudhuri, 2006) Principal industries of the district include cotton and silk harvesting and weaving, rice and oilseed milling, stone mining and metal-ware and pottery manufacture. (Mondal, 2006). Table 3 presents some of the major demographic statistics regarding Birbhum district, while Table 4 reflects the current situation of the district in the context of sanitation.

TABLE - 3

**Birbhum District: Some Major Demographic Statistics at a Glance**

| Description           | District as a Whole | Rural     | Urban   |
|-----------------------|---------------------|-----------|---------|
| Population (%)        | 100%                | 87.20 %   | 12.80 % |
| Total Population      | 3,502,387           | 3,054,019 | 448,368 |
| Male Population       | 1,791,017           | 1,562,479 | 228,538 |
| Female Population     | 1,711,370           | 1,491,540 | 219,830 |
| Sex Ratio             | 956                 | 955       | 962     |
| Literates             | 2,175,923           | 1,846,090 | 329,833 |
| Male Literates        | 1,214,772           | 1,036,645 | 178,127 |
| Female Literates      | 961,151             | 809,445   | 151,706 |
| Overall Literacy Rate | 70.90%              | 69.25 %   | 81.74 % |
| Male Literacy         | 77.42%              | 76.01 %   | 86.75 % |
| Female Literacy       | 64.07%              | 62.18 %   | 76.55 % |

Source: ORGI (2011)

TABLE - 4

**Current Scenario of Sanitation in Birbhum District: Some Key Statistics**

| <b>Individual Household Latrines and Functionality of Toilets</b> |   |                                     |   |                                  |   |                                     |                           |                                  |
|---|---|-------------------------------------|---|----------------------------------|---|-------------------------------------|---------------------------|----------------------------------|
| SL.No.  | Category                                | Total Households                    | Households (HH) with toilet             | %age of HH with toilet           | Households without toilet                   | No. of HHs having functional toilet | %age of Functional toilet | No. of HHs having defunct toilet |
| 1.1   | <b>BPL-Others</b>                       | 161581                              | 52566                                   | 32.53                            | 109015                                      | 45635                               | 86.81                     | 6931                             |
| 1.2   | <b>BPL-SC</b>                           | 128814                              | 33433                                   | 25.95                            | 95381                                       | 27923                               | 83.52                     | 5510                             |
| 1.3   | <b>BPL-ST</b>                           | 33994                               | 6573                                    | 19.34                            | 27421                                       | 5089                                | 77.42                     | 1484                             |
| 2.1   | <b>APL-SC</b>                           | 71375                               | 19717                                   | 27.62                            | 51658                                       | 17342                               | 87.95                     | 2375                             |
| 2.2   | <b>APL-ST</b>                           | 20550                               | 4149                                    | 20.19                            | 16401                                       | 3413                                | 82.26                     | 736                              |
| 2.3   | <b>APL-Physically handicapped</b>       | 4379                                | 1205                                    | 27.52                            | 3174  | 1038                                | 86.14                     | 167                              |
| 2.4   | <b>APL-Small &amp; Marginal Farmers</b> | 85545                               | 29778                                   | 34.81                            | 55767                                       | 26491                               | 88.96                     | 3287                             |
| 2.5   | <b>APL-Landless with homestead</b>      | 62447                               | 15909                                   | 25.48                            | 46538                                       | 13416                               | 84.33                     | 2493                             |
| 2.6   | <b>APL-Women Headed Households</b>      | 17577                               | 5443                                    | 30.97                            | 12134                                       | 4810                                | 88.37                     | 633                              |
| 2.7   | <b>APL-Other</b>                        | 132874                              | 57307                                   | 43.13                            | 75567                                       | 52135                               | 90.97                     | 5172                             |
| <b>Total :-</b>   |   | <b>719136</b>                       | <b>226080</b>                           | <b>31.44</b>                     | <b>493056</b>                               | <b>197292</b>                       | <b>87.27</b>              | <b>28788</b>                     |
| <b>Availability of Water Sources in Gram Panchayat (GP)</b>       |   |                                     |   |                                  |   |                                     |                           |                                  |
| Open Well   | Hand pump                               | Stand post                          | Household connection (PWS)              | Other sources                    |   |                                     |                           |                                  |
| 1526  | 31108                                   | 3566                                | 2409                                    | 3425                             |   |                                     |                           |                                  |
| <b>Community Sanitary Complexes</b>                               |   |                                     |   |                                  |   |                                     |                           |                                  |
| Total Sanitary Complexes constructed                              | Functional Sanitary Complexes           | %age of Functional Sanitary Complex | No.of Households using Sanitary Complex | Defunct Sanitary Complexes       | No. of Additional Sanitary Complex required |                                     |                           |                                  |
| 9   | 9                                       | 100.00                              | 1590                                    | 0                                | 215   |                                     |                           |                                  |
| <b>Anganwadi Toilet Coverage</b>                                  |   |                                     |   |                                  |   |                                     |                           |                                  |
| Type  | Total                                   | With Latrines                       | %age of with latrines                   | with adequate water availability | %age of with adequate water availability    |                                     |                           |                                  |
| Government(Own Building)  | 2112                                    | 1166                                | 55.21                                   | 956                              | 45.27                                       |                                     |                           |                                  |
| Other Govt.building (School/Panchayat/Others)                     | 1717                                    | 751                                 | 43.74                                   | 694                              | 40.42                                       |                                     |                           |                                  |
| Rented  | 364                                     | 15                                  | 4.12                                    | 179                              | 49.18                                       |                                     |                           |                                  |
| <b>Total :-</b>   | <b>4193</b>                             | <b>1932</b>                         | <b>46.08</b>                            | <b>1829</b>                      | <b>43.62</b>                                |                                     |                           |                                  |
| <b>Status of Village and Sanitation Committee (VWSC)</b>          |   |                                     |   |                                  |   |                                     |                           |                                  |
| GP's where VWSC formed  | GP's where VWSC functional              |                                     |   |                                  |   |                                     |                           |                                  |
| 40  | 38                                      |                                     |   |                                  |   |                                     |                           |                                  |
| <b>Other Organization(s)in GP</b>                                 |   |                                     |   |                                  |   |                                     |                           |                                  |
| NGOs  | SHGs                                    | Women Group                         | Others                                  |                                  |   |                                     |                           |                                  |
| 43  | 152                                     | 144                                 | 11                                      |                                  |   |                                     |                           |                                  |

Source: Ministry of Drinking Water &amp; Sanitation (2012)

### **3.3.0. Design of the Study**

The present study carries the features of both qualitative as well as quantitative research. While analysing the responses in respect to the first objective of the study i.e. to study the level of awareness about the basic sanitation practices among rural women – quantitative data-analysis method has been used with the help of suitable statistical techniques. Simultaneously in order to find out results for rest of the four (4) objectives – an in-depth analysis of the received responses was done, which exhibits the feature of a qualitative analysis. So this study is simultaneously both qualitative and quantitative in nature.

### **3.4.0. Sources of Data**

**3.4.1. Primary Sources:** Data collected from Interview and Focus Group Discussions (FGDs)

**3.4.2. Secondary Sources:** Data collected from available books, study reports, journals, articles; official documents in the form of pamphlets, booklets, working papers; newspaper cuttings and other printed, electronic and web-based materials

### **3.5.0. Sampling Procedure**

Multi-stage cluster sampling method has been adopted for this study.

☞ From the nineteen (19) blocks of Birbhum district - three (3) blocks i.e. Bolpur-Sriniketan, Labpur and Nanoor have been selected purposively.

In the next stage, two (2) Gram Panchayats (GPs) from each of the selected blocks has been chosen on random basis.

☞ From Bolpur-Sriniketan Block - Ruppur GP and Sattore GP were selected on random basis

☞ From Labpur Block – Jamna GP and Danrka GP were selected on random basis

☞ From Nanoor Block – Charkalgram GP and Thupsara GP were selected on random basis

Later on, from each of the selected gram panchayats, two (2) villages have been selected randomly.

☞ From Ruppur GP – Balipara and Baganpara villages were selected randomly

☞ From Sattore GP – Sattore and Bishnukhanda villages were selected randomly

☞ From Jamna GP – Jamna and Bagtor villages were selected randomly

- ☞ From Danrka GP – Danrka and Eguria villages were selected randomly
- ☞ From Charkalgram GP – Papuri and Charkalgram villages were selected randomly
- ☞ From Thupsara GP – Thupsara and Palitpur villages were selected randomly

At the end, randomly selected fifty (50) households from each of these selected villages have been taken into consideration and finally from the entire six hundred (600) households - altogether a sample of three hundred (300) women respondents were chosen and were interviewed for getting the desired information for this study. These 300 women were considered as the key respondents of this study. Diagram 1 (appeared in the next page) explores the framework of selecting the key respondents.

### **3.5.1. Informants apart from Key Respondents:**

Besides 300 key women respondents - the researcher also collected necessary information from the following categories of respondents for this study...

- ☞ for ‘objective 3’ of this study i.e. ‘to explore the role of women in promotion and management of rural sanitation, particularly at the household-level’ - apart from women, necessary information have been collected from male members of the families, chosen on random basis from the selected sample households
- ☞ for ‘Objective 4’ i.e. ‘to find out the factors affecting the success of rural sanitation programmes’ - need-based data have been collected from officials/members/personnel/employees who are associated with sanitation sector in the selected Gram Panchayats/Blocks/Zilla Parishad offices as well as members/officials of Non Governmental Organisations (NGO)/Voluntary Organisations (VOs)/Community Based Organisations (CBOs)/Civil Society Organisations (CSO) – engaged in sanitation sector of Birbhum district
- ☞ for ‘Objective 5’ i.e. ‘to explore the scope of intervention for social work profession in promoting rural sanitation’ - apart from literature review, necessary information have been collected from professional social workers i.e. professionals with MSW degree

**DIAGRAM – 1**

**Framework Showing How the 300 Key Respondents were selected for this Study**



### **3.6.0. Tools and Procedure of Data Collection**

**3.6.1. Interview Schedule:** Keeping in view the different objectives of this study, different sets of relevant questions have been incorporated under different sections of the interview schedule for the purpose of data-collection. The details description of the tool has been provided in Appendix.

### **3.6.2. Focused Group Discussion (FGD):**

For seeking necessary information regarding ‘objective 3’ of this study i.e. to explore the role of women in promotion and management of rural sanitation, particularly at the household level – three (3) FGDs have been conducted among randomly chosen 150 women (1 woman per household) out of selected 300 key women respondents, taking 50 women from each of the three (3) selected blocks; simultaneously, in the same way - three (3) FGDs have been conducted among 150 male members from the same 150 households (1 male per households) taking 50 male from each of the three (3) selected blocks.

For ‘Objective 4’ i.e. ‘to find out the factors affecting the success of rural sanitation programmes’ - need-based data have been collected through conducting six (6) FGDs among randomly chosen fifty (50) officials/members/personnel/employees who are associated with health and sanitation wings/departments in the selected Gram Panchayats/Blocks/Zilla Parishad offices, as well as members/officials of Non Governmental Organisations (NGO)/Voluntary Organisations (VOs)/Community Based Organisations (CBOs)/Civil Society Organisations (CSO) - working in sanitation sector of Birbhum district

For ‘Objective 5’ i.e. ‘to explore the scope of intervention for social work profession in promoting rural sanitation’, the researcher has conducted one FGD-session for seeking need-based information from fifty (50) randomly selected professional social workers (i.e. professionals with MSW degree) – engaged in sanitation sector and working with different Government organizations like Block Development Offices, Offices of Public Health Engineering Department as well as Non-Governmental Organizations (NGOs) like UNICEF, Water Aid, UNDP, Water for People and CINI.

### 3.7.0. Procedure of Data Analysis

In this study, both qualitative and quantitative analysis of data has been made after securing necessary and complete responses and views from the respondents as well as from the informants, taking into consideration the different objectives of the study. Quantitative data have been analysed with the help of SPSS (Statistical Package for the Social Sciences) software to obtain accuracy in data-analysis.

The framework of data-collection as well as data-analysis procedure has been presented through Table - 5.

TABLE – 5

**Framework of data-collection as well as data-analysis**

| <b>Objectives of The Study</b>   | <b>Respondents</b>   | <b>Mode of Data-collection</b>                   | <b>Type of Analysis</b>                               |
|--|--|--|---|
| <u>Objective – 1:</u> To study the level of awareness about the basic sanitation practices among rural women   | Women<br>[No. of Respondents – 300]  | Interview<br>[5-point attitude scale was framed] | Quantitative Analysis<br>[ANOVA & ‘t’-test were used] |
| <u>Objective – 2:</u> To review the prevalence of diseases among women as a consequences of not using sanitary latrine   | Women<br>[No. of Respondents – 300]  | Interview  | Qualitative Analysis                                  |
| <u>Objective – 3:</u> To explore the role of women in promotion and management of rural sanitation, particularly at the household-level  | Women (150) & Male members (150) of the same Family<br>[No. of Respondents – 300]        | Focus Group Discussions                          | Qualitative Analysis                                  |
| <u>Objective – 4:</u> To find out the factors affecting the success of rural sanitation programmes   | Govt. & NGO officials from the selected GPs/Blocks/District<br>[No. of Respondents – 50] | Focus Group Discussions                          | Qualitative Analysis                                  |
| <u>Objective – 5:</u> To explore the scope of intervention for social work profession in promoting rural sanitation and suggest policy measures for ensuring better implementation of rural sanitation programme | Professional Social Workers, working in sanitation sector<br>[No. of Respondents – 50]   | Focus Group Discussions & Literature Review      | Qualitative Analysis                                  |



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