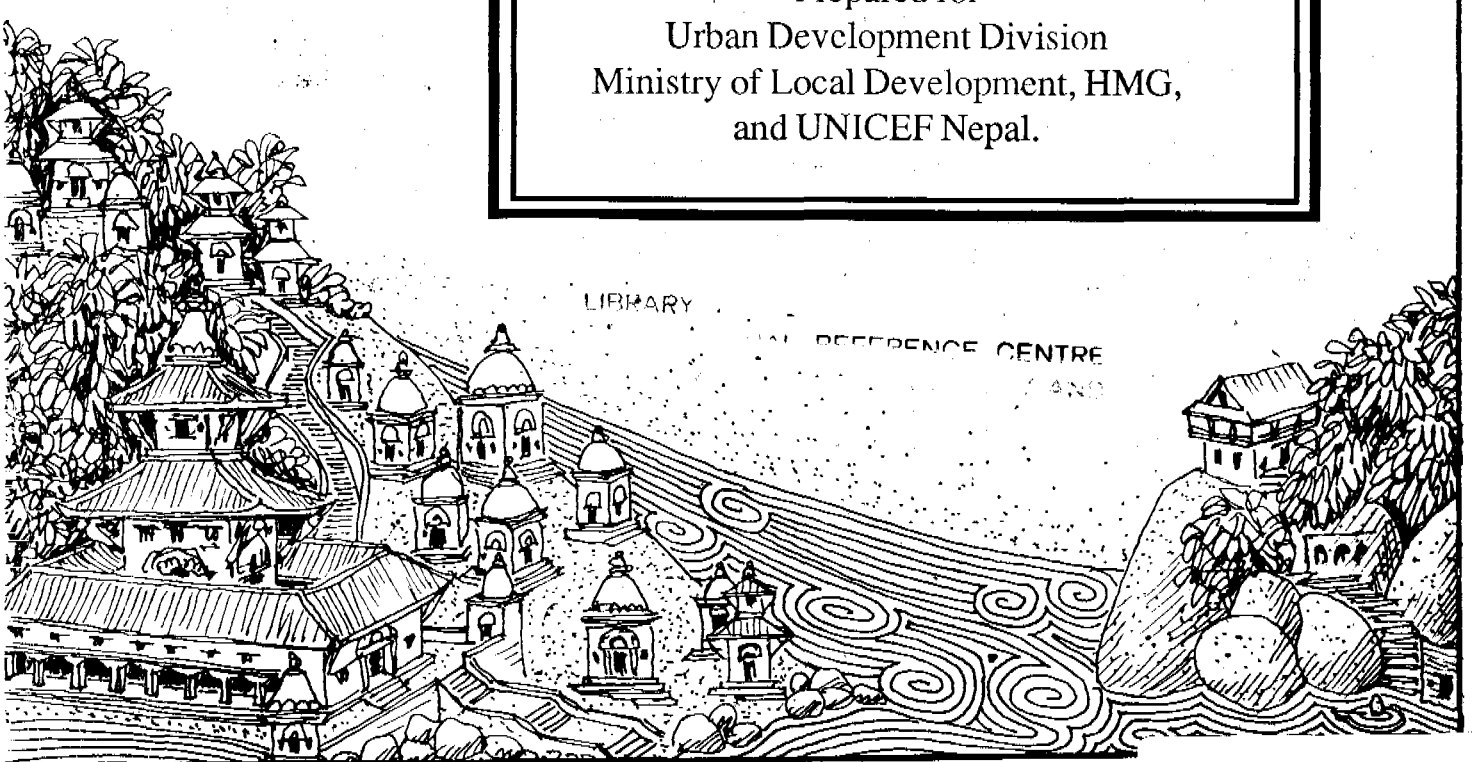
URBAN BASIC SERVICES
A COMMUNITY PROFILE

BIRATNAGAR MUNICIPALITY

Prepared for
Urban Development Division
Ministry of Local Development, HMG,
and UNICEF Nepal.



URBAN BASIC SERVICES

A COMMUNITY PROFILE, BIRATNAGAR, NEPAL

PREPARED FOR:

BIRATNAGAR MUNICIPALITY (BIRATNAGAR NAGAR PALIKA)
MINISTRY OF LOCAL DEVELOPMENT, HMG/NEPAL
UNITED NATIONS CHILDREN'S FUND (UNICEF)

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NEPAL, 1990

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ACKNOWLEDGEMENTS

First and foremost, we are indebted to the proponents of the UBS Programme of UNICEF for granting the conduct of this study to us. For all their invaluable support and guidance in all stages of the study, we are profoundly grateful to Mr. Raymond Janssens, Ms. Isabel Crowley, Ms. Margarita Wills and Mr. Heinz Boeni of UNICEF. They have all given their time, energy, advice and encouragement to make this study generate at its best the information required by the UBS Programme.

We thank wholeheartedly Mr. R. K. Tiwari of the Ministry of Local Development and the staff of the Ministry of Housing and Physical Planning for their keen interest and support to the UBS Programme and to this study. Likewise, Mr. Ram Krishna Bhurtel (Executive Secretary of Biratnagar Municipality) deserves a note of thanks for his assistance during field work. We also thank the Nursing Campus of Biratnagar and the various social and political organisations for their support and cooperation.

A special word of thanks is due to Ms. Carole Presern, VSO Director for her insights on the design and for going through the draft copy of this report. We also wish to thank the source of the methods by which the childbirth survey of this study was patterned from - Dr. Marta Levitt of the Division of Nursing, Ministry of Health, and Redd Barna.

For their long hours of work and all-out efforts to make this study come into this final form, the Research Team and the DECORE staff deserve profound gratitude: Mr. Gokul Pyakurel, Shailendra Sharma, Grisma Tamrakar, Laxmi Khadka, Kamala Shrestha, Tulasa Khadka, Kamala Shrestha; and Girwan Pandey (Programmer); and Matrika Pyakurel, Khem Raj Shrestha and Shashi Rai (Data Entry Operators). Special thanks is given to Mš. Josefina O. Dhungana, DECORE's Chief of Communication and Training Section, for her contributions in all stages of the study, particularly in the final report preparation. We also thank Dr. Peggy Henderson for giving further refinements to the final manuscript.

We owe a debt of gratitude to the urban poor respondents of Biratnagar Municipality for providing the information we need. We trust that through the UBS Programme, the outcome of this study will truly contribute in fulfilling their dreams of a better life.

Dr. Shambhu P. Dhungana
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& Research Consultancy Group
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January 1990
Kathmandu, Nepal

EXECUTIVE SUMMARY

His Majesty's Government of Nepal (HMG/N), working through the Urban Basic Services (UBS) Programme, aims to address the country's growing urban problems by identifying the needs of the urban poor and working out a plan of action that will incorporate those needs.

From 1988-92, the UBS Programme was to be implemented in five towns in Nepal, namely the municipalities of Lalitpur, Biratnagar, Pokhara, Nepalgunj and Dhangadi. These towns represent the five development regions of the country, had high growth rates during the last three years, have populations above 40,000, are easily accessible and are important centres of economic development.

The present report describes a baseline study conducted in Biratnagar Municipality in June, 1990. The overall objective of this study was to determine the basic health needs, domestic water use pattern, sanitation situation and other requirements of the target group in order to plan and establish a community-based programme that can optimally utilise existing services, discover and develop untapped resources within the community, and help to met unmet needs by supplying or upgrading services.

The survey covered three pockets of Biratnagar, each composed of clusters of poor communities that visibly need assistance in hygiene and sanitation: Sarochia (ward number 7), Ghogapul (ward number 12) and the Rani/Mills area (ward numbers 19, 21 and 22).

Four data collection methods were used: a quick community assessment (QCA), a household survey, a childbirth survey and focus group discussions. The QCA provided a sound basis for sampling and, further, for selecting the focus group participants. A sample household survey was conducted among 211 families in order to establish baseline information on their demographic and socio-economic profile and their knowledge, attitudes and practices on specific areas of concern. Postpartum mothers, pregnant women and traditional birth attendants (TBAs) were interviewed separately to obtain their views on childbirth, maternal health and child care practices. Fourteen focus group discussions on education, health and sanitation in different areas with various age groups were organised.

Major Findings

The study revealed that residents of the three pocket areas live in a generally poor and deprived condition. While the several factories in the town provide economic opportunities for many, labourers' wages were not adequate for

meeting needs for most respondents. A similar situation existed for those in other occupations - tailors, rickshaw pullers, farmers and others. Resorting to loans was common, despite high interest rates. The literacy level was very low, with 47% illiteracy among respondents overall and lower rates for females.

Education for their children was not felt to be necessary in the majority of households. Lack of primary schools, lack of adequate facilities in the existing ones and bad behaviour of school staff to children unable to comply with school requirements (such as uniforms) caused many parents not to send their children to school. For other families, the small income children contributed to the household budget by selling tin cans or assisting on the farm also discourage school attendance.

The researchers found the overall health and sanitation situation in the study pocket areas very poor. While tubewells and communal taps were generally available, the sanitary conditions of the surrounding areas were very poor. Water sources were always overcrowded, children defecated around them and foul-smelling water stagnated there, particularly where buckets sit. About one-half of respondents had water problems, mostly during the July to September monsoon period. Only one-half of the residents showed a readiness to contribute to improving their water situation. Most did not understand the consequences to their health of drinking poor quality water. Mehatar Tole residents, regarded as "untouchables", generally had problems obtaining water because of their low caste.

The problem of lack of toilets was serious in most areas. Adults generally defecate in the open fields or spaces nearby, and children use the immediate surroundings. A need for communal toilets was expressed.

While a majority of respondents said they were aware of the relation of poor environmental conditions with disease, their responses to related questions revealed incorrect knowledge of the diseases that can be transmitted. In addition, many did not practice safe and hygienic behaviour. For example, residents said they washed their hands after defecation, but because of economic limitations on buying soap and the low availability of water, their washing habits were not likely to prevent disease. Respondents often blamed their low economic status for constraining their desire to maintain cleanliness.

Drainage problems affected most of the households covered, with stagnant water accumulating around houses. The indiscriminate disposal of garbage was common, and only some areas were cited as being cleaned regularly. Since many of the houses were rented, a general feeling prevailed that it was the landlords' responsibility to improve the surroundings, including cleaning.

Particularly during the summer, most residents suffer from malaria, while in winter, measles and diarrhoea were common among children. The use of

modern health facilities (health posts, hospitals, pharmacies) prevailed, with respondents citing "because everybody goes there" as the reason. However, the Muslim community in Sarochia utilised mostly the services of *hakims* (medical practitioners using herbal medicines). For childbirth, TBAs and mothers-in-law were sought more often than hospitals, particularly among Muslim women. TBAs were popular as they are generally easily accessible. Respondents cited no particular differences between the services of untrained compared to trained TBAs.

While administering oral rehydration therapy was often cited as a method to treat diarrhoea at home, very few respondents were able to demonstrate the proper mixture of salt, sugar and water for homemade fluids. Vaccination coverage was very low in the 0 - 4 years age group.

Social problems existed in specific areas, such as alcoholism and prostitution in the Rani/Mills area, which attracted Indians from across the border. Some respondents had land ownership conflicts with factory management that contributed to the prevailing negative attitude toward improving the community.

While each pocket area has its own particular needs, overall priorities expressed by respondents were toilets, health facilities and sanitation, skills development/training, income-generating activities and water.

Recommendations

Detailed strategies relating to each sector and in some cases to each pocket are contained in the body of the report. To summarise the most important directions for future assistance:

- UBS should try to remove the barriers to children's education in this community. To do so requires more information on what work out-of-school children do for their families and how essential it is; orientation for parents and students on why education is important, especially for girls; raising of income levels for parents and children through income-generating activities appropriate to both; changing of attitudes of teachers through increasing their involvement in the community and incentives for improved work; adaptation of government policy on fees, uniforms and other items so that even the poorest families can afford costs; and improving physical facilities.

- Environmental health needs improving through a combination of health education and awareness-raising; community organisation; and involvement of the municipality so that it fulfills its obligations to provide basic services.

- Some deficiencies in health services can be improved by educating the community in prevention and effective home treatments for common diseases to decrease their reliance on distant hospitals and the purchase of medicines; educating the public on realistic expectations of the health services; investigating the training of urban community health volunteers; and training more TBAs.

- Income-generating activities will help to improve almost every aspect of life for this poor population, but the activities must be selected and promoted taking into account a balance between the community's expressed ideas and practical solutions.

- Women need to be encouraged to take a greater part in community affairs and to increase their experience in decision-making. The promotion of literacy classes for women may help to increase their self-confidence. Male heads of households need orientation on why their wives and daughters should be educated and be allowed to make decisions.

- The needs of children in especially difficult circumstances, including working children, disabled, and child brides, should be given special consideration and in some cases direct support, to enable them to participate more fully in society.

- UBS should capitalise on the experience and expertise of other groups working in the target area, and should build on the experience of other projects or institutions with similar objectives, such as Adarsha Nirman Mandir and the Nursing Campus.

STUDY TEAM

Principal Investigator	Dr. Shambhu P. Dhungana
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LIST OF TABLES

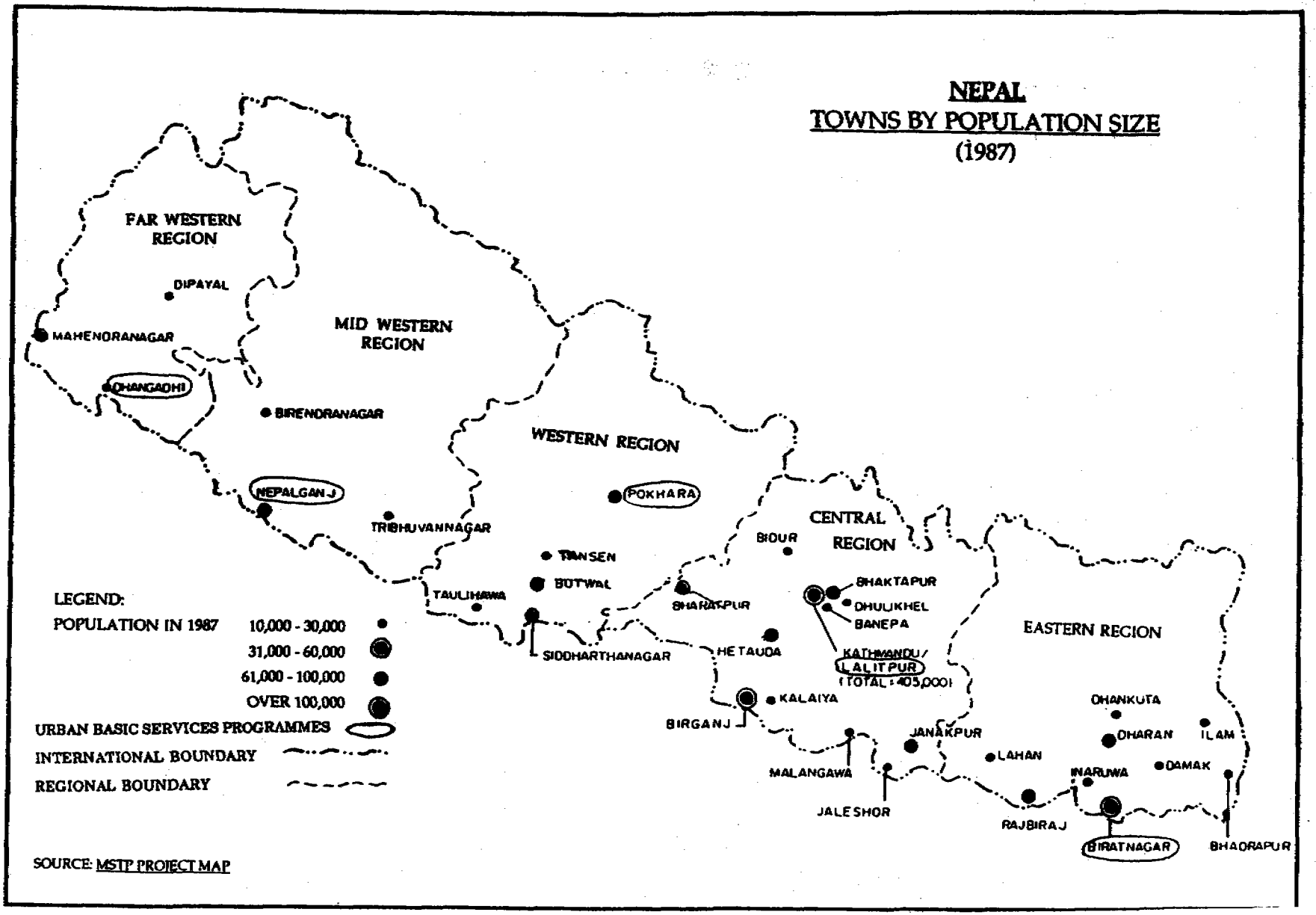
LIST OF ACRONYMS USED

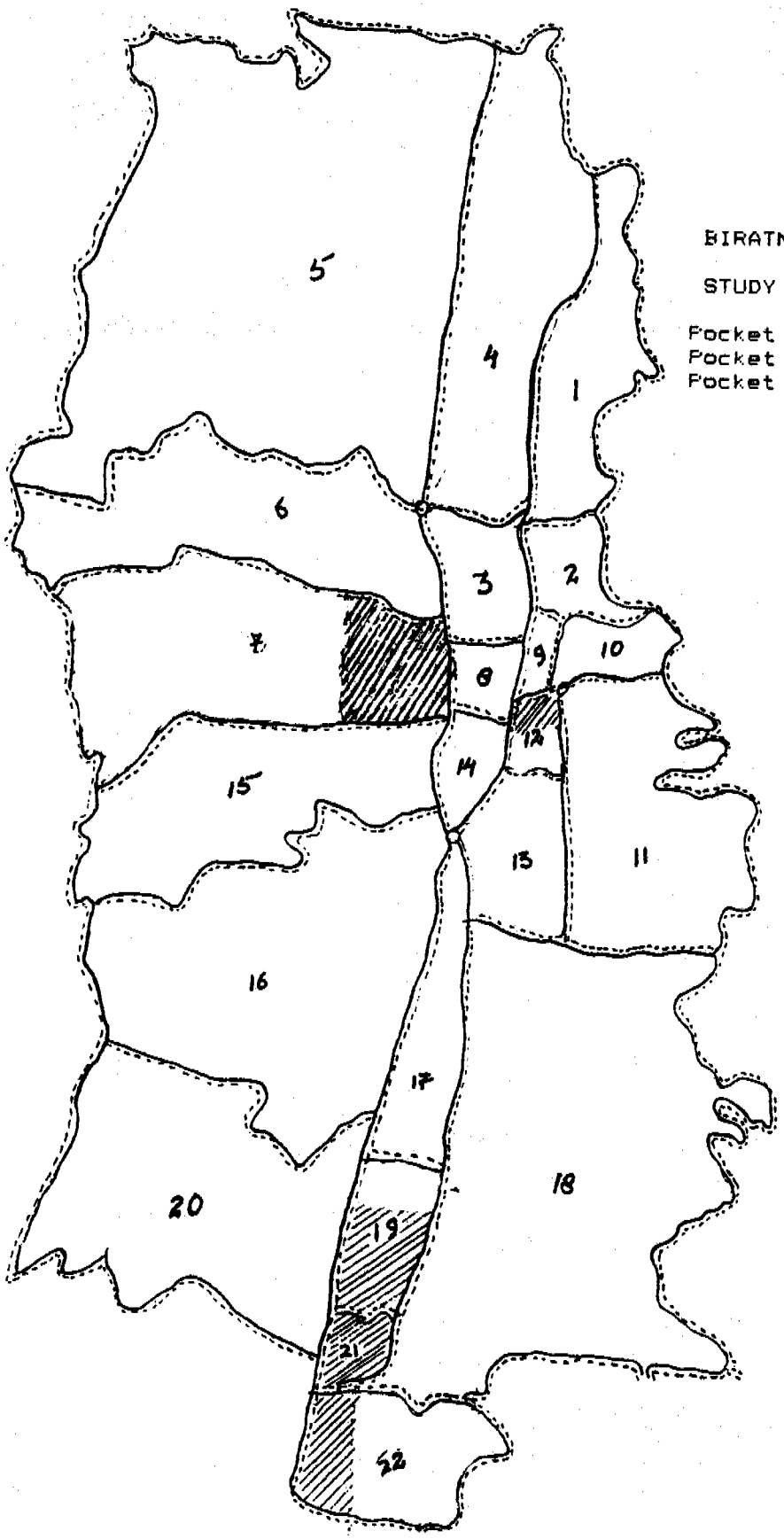
GDP	Gross Domestic Product
HMG/N	His Majesty's Government of Nepal
MLD	Ministry of Local Development
MHPP	Ministry of Housing and Physical Planning
NGO	Non-governmental Organisation
ORS	Oral rehydration solution
ORT	Oral rehydration therapy
QCA	Quick Community Assessment
PCRW	Production Credit for Rural Women
SFDP	Small Farmers Development Programme
TBA	Traditional birth attendant
UBS	Urban basic services
UNICEF	United Nations Children's Fund
VSO	Voluntary Service Overseas

GLOSSARY OF NEPALI TERMS USED

Bidis	A cigarette wrapped in leaves
Burka	Veil worn by Muslim women
Chowk	Centre/cross point of the road
Darjee	A Hindi (Indian) word meaning tailor; in Nepali, they are called Damai (also an ethnic group)
Darjeepatti	Tailors' area
Dhai	A woman who assists in childbirth or serves as nannies
Dhami-Jhankris	Traditional faith healers
Dhobi	Laundrymen (an ethnic group whose profession is washing clothes)
Dhuniya	Quilt-makers
Hakims	Traditional homeopathic practitioners most commonly used in the Muslim community.
Jeevan Jal	Commercially marketed oral rehydration salts
Kisan	Farmer
Madarasa	A muslim school where children learn to read and write Arabic and study Islam.
Mehatar	An ethnic group of sweepers/janitors, also considered untouchable
Nun-chini-paani	Home-made salt, sugar and water oral rehydration solution
Pan dookan	Betel nut
Pewa	A women's personal properties acquired as gifts or generated by herself
Pudina	Local herb
Puja	Prayers/ceremonies
Sari	A Nepalese woman's chief garment, a long cloth wrapped around the waist and passed over the shoulder and head.
Sajha	Cooperative
Sarabi	Drunk
Sudeni	Traditional birth attendant
Tole	Small area of village/town

LIST OF FIGURES


NEPAL
TOWNS BY POPULATION SIZE
(1987)
FAR WESTERN REGION
MID WESTERN REGION
WESTERN REGION
CENTRAL REGION
EASTERN REGION
DIPAYAL
MAHENDRANAGAR
DHANGADHI
BIRENDRANAGAR
NEPALGANJ
TRIBHUVANNAGAR
POKHARA
TANSEN
BUTWAL
TAULIHAWA
SIDDHARTHANAGAR
BHARATPUR
BIDUR
BHAKTAPUR
DHULIKHEL
BANEPA
KATHMANDU/
LALITPUR
(TOTAL : 405,000)
HETAUDA
KALAIYA
BIRGANJ
MALANGAWA
JALESHOR
JANAKPUR
LAHAN
RAJBIRAJ
DHANKUTA
DHARAN
ILAM
INARUWA
DAMAK
BIRATNAGAR
BHADRAPUR
LEGEND:
POPULATION IN 1987
10,000 - 30,000
31,000 - 60,000
61,000 - 100,000
OVER 100,000
URBAN BASIC SERVICES PROGRAMMES
INTERNATIONAL BOUNDARY
REGIONAL BOUNDARY
SOURCE: MSTP PROJECT MAP



BIRATNAGAR MUNICIPALITY

STUDY AREA IS AS FOLLOWS:

Pocket A = Ward no. 7
Pocket B = Ward no. 12
Pocket C = Ward no. 19, 21, 22

URBAN BASIC SERVICES PROGRAMME

URBAN POOR COMMUNITY PROFILE OF BIRATNAGAR MUNICIPALITY

CHAPTER I

INTRODUCTION

Much concern has been expressed at the pervasive poverty which prevails in Nepal despite the substantial development expenditures aimed at its alleviation. With agricultural productivity falling during the 1960s and 1970s, real gross domestic product (GDP) growth has often lagged behind the annual population growth of 2.7%. Even with modest growth of 4.9% in agricultural production during the last decade, which contributed to a real GDP growth averaging 4.5% over the same period, Nepal's GDP per capita of $170 still remains one of the lowest in the world today. What is worse, rapid population increase since 1970 has virtually offset whatever economic growth has been achieved. Combined with a life expectancy of about 52 years, infant mortality of 107 per 1,000 live births, and adult literacy estimated at only 35%, Nepal's socio-economic indicators point to widespread poverty.

The past five years have witnessed a shift in population patterns. The inherent and deteriorating conditions in rural areas have contributed to their decreasing absorptive capacity, and migration to towns has thus increased. At present, about 9% of Nepal's 18 million total population live in urban areas. This figure will probably double in the next nine years and triple by the year 2014. For 1990, the estimated urban population is 1,642,000, with the figure expected to reach 2,963,000 by 2001. Urban areas will then contain 12.6% of the country's population. This urbanisation phenomenon in Nepal is not confined to the approximately 33 towns. About 100 additional settlements are considered to have urban characteristics, and if these and the peripheral areas of the towns are included, the level of urbanisation would be closer to 20%.

The expansion in the urban population has not been accompanied by a similar expansion of basic services delivery. Further compounding the situation is the weak institutional base of the municipalities, lack of financial resources and ineffective urban policies, all of which affect the poor, and in particular poor children and women, most severely.

As it becomes increasingly difficult for towns to meet the basic demands of their populations, a concerted effort is necessary to assist those most in need before the situation deteriorates further. While urbanisation in Nepal has not reached the level of most other countries in Asia, a preventive approach can be

developed to avoid further deterioration of the urban environment, particularly where the situation is still manageable.

His Majesty's Government of Nepal (HMG/N) has begun to address some of the more pressing urban issues. A recent declaration on basic needs and the directives given in the Seventh Five Year Plan on urbanisation and habitation policy provide guidelines for approaching the problem. These, together with the Decentralisation Act, provide the structure within which development in the towns can take place. Further, with recent changes in the political system of the country, a new phase of development is expected to begin.

The overall objectives of the HMG/N-UNICEF plan of cooperation for 1992-97 in urban areas will focus on improvement of the urban environment; reorientation of urbanisation policies, particularly those related to poor children and women; reorienting service delivery systems at the municipal level, thus facilitating the provision of basic services to the urban poor, especially children and women; increasing productivity and income for disadvantaged groups; and ensuring convergence of social services in poor and disadvantaged urban communities.

The Urban Basic Services Programme

The Urban Basic Services (UBS) Programme aims at achieving the Goals for Children and Development in the 1990s in all urban communities reached by the programme, as stated in the World Summit Declaration for the Survival, Protection and Development of Children signed by the R. H. Prime Minister on December 12, 1990. These goals include reductions in infant, child and maternal mortality, reduction of severe and moderate malnutrition in children, universal access to safe drinking water and to sanitary means of excreta disposal, increased access to education, reduction of the adult literacy rate, and improved protection of children in especially difficult circumstances.

Specifically, the UBS programme aims to reach at least 75% of the 1.6 million urban poor by the year 2000, with an intermediary goal of 250,000 by 1997, drawing from on-going and UNICEF-assisted programmes primarily for maternal and child health, safe drinking water, environmental sanitation, early childhood development, skills development and income-generating activities, access to basic education and literacy.

To reach these goals, plans of action will be developed based on locally identified needs, facilitating the convergence on and adaptation of on-going or available programmes to the selected areas, and encouraging community participation and the involvement of urban-based non-governmental organisations (NGOs).

From 1988 to 1992, the programme aimed to cover one municipality in each of the five development regions, namely Lalitpur, Pokhara, Biratnagar, Dhangadhi and Nepalgunj. These towns were selected as they represent all the regions, had high growth rates during the previous three years, have populations over 40,000, are easily accessible and are important centres of economic activities. For each of the selected municipalities, one or two wards of approximately 1,500 residents were to be chosen for the first year of implementation of the community-based programme, with extension to another 1,500 planned for subsequent years.

Recognising the need for this type of assistance, the UBS programme's first major activity has been to conduct detailed needs assessments in the five towns, designed to identify local basic needs through consultation with the residents to be affected, and to enable the refinement of strategies aimed at meeting them. Based on the results of these studies, the project proponents envisaged that strategies will be developed through a multi-sectoral approach to converge sectoral services on the project areas and to further develop community-based urban interventions. The community is to be involved not only in the needs assessment stage, but also in the elaboration of the programme plan, implementation and monitoring and evaluation.

The first baseline study was conducted in Lalitpur; the present report represents the second. Research has been completed or is in progress in the other three target towns. The Development, Communication and Research Consultancy Group (DECORE) carried out this baseline survey of the Biratnagar Municipality in June, 1990.

Objectives of the Study

The overall aim of the UBS programme is to emphasise activities that are directly linked with the survival, protection and development of the most vulnerable sectors of the urban poor, particularly children and women. This study was designed to generate data of relevance to the objectives of the UBS programme.

Thus, the overall objective of this study was to determine the basic health needs, domestic water use pattern, sanitation situation and other requirements of the target group in order to plan and establish a community-based programme that can optimally utilise existing services, discover and develop untapped resources within the community, and help to meet unmet needs by supplying or upgrading services.

Specifically, the study aimed:

- to define a community profile of poorer sectors of Biratnagar Municipality through investigation of the environmental conditions, health and economic status of the target group.

- to identify the needs of the urban poor community of Biratnagar Municipality and to elicit information on their knowledge, attitudes and practices concerning health, sanitation, maternal and child care.

- to evolve recommendations for sectoral service delivery for community-based urban interventions in the project areas.

Methodology

To select the sites to be covered in the study, a team composed of representatives from the Ministry of Local Development (MLD), UNICEF (the UBS and Water and Sanitation Project Officers), the Executive Secretary and Chief Engineer of Biratnagar Municipality, the Chief District and Local Development Officers, a representative from the District Office of the Ministry of Housing and Physical Planning (MHPP), local leaders and the principal investigator visited all sites in Biratnagar town where urban poor are known to settle. The team discussed the existing situation and the present problems in these communities with local groups and the community in general. After this preliminary visit, it discussed the selection process and short-listed a few possible locations for study. The team then made further visits to finally identify the areas to be covered. Selection of the final sites was based on the following criteria:

- the target area had to be composed of communities where poor people live;

- the area had to be genuinely in need of assistance in promoting hygiene and sanitation;

- the area had to be deprived as compared to any other area within the town;

- community residents had to be cognizant of the need for improvements that could influence the present status of children and mothers in the area.

It was difficult to identify the ideal target area, since many areas were eligible given these criteria. Hence, the team selected the three locations that appeared to be the most needy: Sarochia (ward number 7), Ghogapul (ward number 12) and the Rani/Mills area (ward numbers 19, 21 and 22). After the baseline study covering this limited area, programme activities could still be implemented in other areas according to need.

Investigators utilised a combination of approaches to collect the information for this study:

- A Quick Community Assessment (QCA) was carried out to map the community and to identify the target households. The team first counted and categorised all the houses in the focus community according to the following scheme:

  - Poor houses: built either of thatch, stone/mud or wood and bamboo, in miserable condition;

  - Bad houses: built either of thatch, stone/mud or wood and bamboo, but in better condition than poor houses;

  - Fair houses: considered neither good nor bad, built of brick, corrugated iron, tiles and wood.

  - Good houses: both in structure and condition, built similarly to the fair houses, but could also be made of breeze blocks.

  - Better houses: the best in the locality, generally with good structure, materials similar to good and fair houses.

  Residents of the houses in the first three categories were considered the targets for this study.

  After identifying the target houses, their available services, such as water supply, toilet, sewage, educational and health care facilities, were noted. The team informally asked key individuals in the community about their general practices, problems and livelihoods in order to get a broader idea of the community before starting the household survey. Business activities were also observed. The information gathered through the QCA provided a basis for sampling and for selecting focus group discussion participants.

- A Household Survey was conducted to find out in detail the existing situation of the community and to establish baseline information on its demographic and socio-economic characteristics, as well as knowledge, attitudes and practices regarding specific areas of concern. Since the UBS programme is centred on children and women, two different sets of questionnaires (Annex 1) were developed to conduct the household survey - one for males and another for females. Questionnaires for male respondents contained items such as family income and expenditure, quality of housing, toilet facilities, and social problems. Female respondents were asked about their children and themselves, with questions on subjects

such as causes and ways of treating illness, education, pregnancy, immunization and social practices. Interviewers used similar questionnaires as for the UBS baseline study in Lalitpur. However, in this survey, open-ended responses were solicited for some questions.

As the three pockets finally selected were of quite different sizes but resources were limited, investigators drew a sample of about 15% from each community (Table 1). Interviewers began working from various parts of the pockets selected, went to the first house which met the criteria, and then proceeded to the next house at an interval of every third, fifth, etc., house, depending on the pocket. In houses with more than one household, the first household where both the head of household and his spouse were available was included.

Table 1: Houses, Target Houses and Sample Size

Pocket	Total Houses	Target Houses*	Sample Size
Sarochia, Area A (ward number 7)	311	168	31
Ghogapul, Area B (ward number 12)	151	110	21
Rani/Mills, Area C (ward nos. 19, 21, 22)	1448	1243	159**

*houses categorised as poor, bad or fair; ** A total of 159 female respondents and 160 male respondents were included in the sample survey.

In the course of the study, priority was given to interviewing household heads and their spouses (which effectively excluded one-parent families). Where a couple was not available after several visits, other responsible adults were interviewed.

- A Childbirth Survey was also conducted to find out the existing practices on childbirth and prenatal care in the study area. Three sets of interview schedules were used to collect the necessary information - one for women who had given birth during the past year; one for pregnant women to collect information on prenatal care; and two different sets of questionnaires for untrained and trained traditional birth attendants (TBAs), colloquially known as *sudenis*. The interviewees were identified during the course of the household survey.

- Focus Group Discussions were conducted to collect qualitative information on critical aspects not sufficiently covered through the other approaches. These discussions were organised among more or less homogeneous groups. For example, for the education focus group, only those parents whose children do not attend school formed a group; the health and sanitation group consisted of residents who consider these areas a problem. Younger and older respondents were grouped separately to find out differences in attitudes and perspectives. The participation of women and ethnic representation was also considered. A total of 14 focus group discussions were conducted covering critical areas such as health, sanitation and education, among others (Table 2). Summaries of the discussions are in Annex 2.

Table 2: Focus Group Participants and Subjects

No.	Gender	Subject	Area
7	Males	Health, Sanitation & Education	Rani
8 & 5*	Males	Health & Education	Rani
5 & 6*	Females	Health, Sanitation & Education	Rani
6	Males	Health, Sanitation & Education	Rani
6 & 7*	Females	Health, Sanitation & Education	Rani
5	Males	Health, Sanitation & Education	Ghogapul
7 & 6*	Females	Health, Sanitation & Education	Sarochia
5	Females	Postpartum	Rani
7	Females	Postpartum	Rani
7	Females	Postpartum	Rani

*Discussions from the 14 focus groups are condensed into 10 summaries in Annex 2.

CHAPTER II

COMMUNITY PROFILE

SECTION 1. THE PHYSICAL ENVIRONMENT

The areas chosen by the town authorities and UNICEF where the programme will commence were designated as "pilot pocket areas". Based on the QCA, the general characteristics of the three pockets selected for the baseline study include:

Pocket A. Sarochia

Sarochia is located in ward number 7 of Biratnagar Municipality (see map). There were 311 houses (comprising 362 households)[1] in this community, of which 168 met the criteria for target houses. The drainage system and toilet facilities were visible physical problems of the area. No specific drainage outlet exists and all the water collects at the roadside. Bad-smelling mud is very common, but no conscious efforts to improve the situation were being made by the residents. Drinking water is obtained from one tubewell; despite a water pipe having been laid by the government long ago, no water taps have yet been distributed because the community cannot afford metres. The area around the tubewell tends to be muddy most of the time.

One school (Sickchhya Sadan Lower Secondary School, from Class 1 to Class 7) with very poor facilities serves this area. A private boarding school in ward number 15 nearby is a little more expensive than the public school. However, the target households in this area do not normally send their children to school. Instead, the children work (cleaning soybean oil tins for Rs.0.50[2] each) or watch Indian movies in video shows. Older people were observed playing cards and sitting in the roadside. Some residents refused to cooperate with the study team in discussing their problems, and in fact, expressed annoyance. In the evening, selling local alcohol on the roadside was common. Even visitors from outside of the community come to drink in this area.

The community is heterogeneous, with a mix of Muslims, Hindus (both locals and migrants from the hills) and Maithali-speaking people from India.

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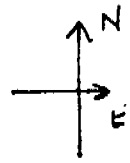
1 Household number for this area was taken from P. Bangdel's Report on Identification of Activities, UBS. UNICEF-Biratnagar, Field Office.

2 At the time of the study, the dollar was equivalent to Rs. 29.20.

BIRATNAGAR

WARD NO. 7, SAROCHIA

Pocket-A



SIKCHHYA SADAN LOWER SECONDARY SCHOOL

SANI ROAD

WATER COLLECTS

MOSQUE

DHARAN ROAD

MAHABIR ROAD

TEMPLE

CONSTRUCTION UNDER

WATER COLLE -CT AROUND HOUSES

GHANS WALA ROAD (KALPANA ROAD) NO ELECTRICS

WATER PIPE

+DRAIN PROBLEM

+ DRAIN PROBLEM

+ Drain Problem

ROAD

CONTAINER OBUTNO USE

BHATTI ROAD

JANAK PASHUPATI BOARDING SCHOOL

MAHENDRA CHOWK

Almost all of the houses were single-storied with only a few two-storied ones. None had a drainage system. Most houses were built of wood and bamboo, with roofing materials being mainly tiles.

Sarochia was found to be quite active in small-scale businesses, but almost all were owned by better-off residents. Altogether 137 different business activities were found in this area, including general grocery stores (23); tea shops (21); metal workshops (12); junk shops (12); betel nut (*pan dookan*) shops (11); firewood stalls (6); local pubs, grill-making (5) and tailoring shops (5); bicycle repair shops, small rice mills, laundries, electrical workshops, homeopathic shops, drug stores (3 each); grain wholesalers and motorcycle repair shops (2 each); saw mill, hosiery (vests), jewelry, paper shopping bags, blacksmith, printing press, saloon, battery repair shop and garage (1 each). Many community residents work in these businesses, but some are also employed in other parts of Biratnagar town. Some people who live on the western side are farmers.

Pocket B. Ghogapul

Ghogapul is situated in ward number 12. It has two main occupational groups: *dhobis* (laundrymen also engaged in farming) and tailors. The tailors are mostly Muslims who observe quite conservative practices, particularly where women are concerned. For example, it was difficult for female interviewers to conduct interviews with pregnant and postpartum women. Some women refused and some shy ones did not provide any information. Some females wear *burkas* (a veil worn to partly cover the face). A total of 151 houses were recorded in this area, with 110 identified as possible target houses for the UBS programme. The actual number of households is expected to be over 180 but was not able to count exactly due to non-availability of many household members.

The north-south road divides the two communities of *dhobis* and tailors. The name Dhobi Hari, an area at the east side of the main road (see map), came from the profession of the people of this part of town. The tailors' locality is referred to as Darjee Patti, a name also coined from their profession. Darjee Patti is heavily congested, with a muddy street on the lower side.

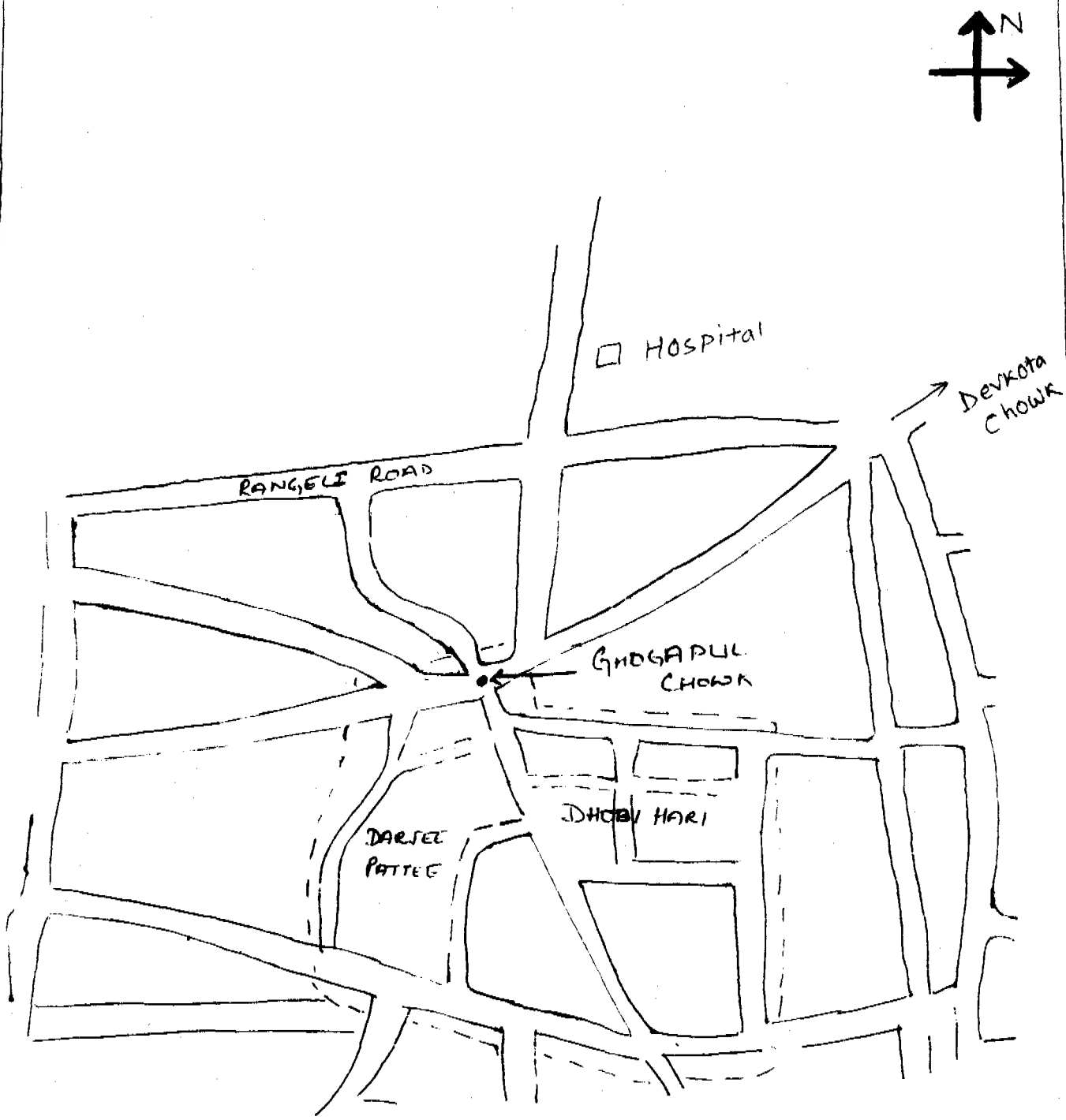
As there were no toilets in most of the houses, people go in the early morning to the open ground to defecate, sometimes even using the trees, while children regularly use the streets to defecate.

All target houses were single-storied and made of wood and bamboo. Tiles were the most popular roofing materials in this area.

Residents expressed land ownership problems, a major reason cited for their low motivation to improve the community.

The living conditions at Darjee Patti were found to be slightly better than at Dhobi Hari. Residents of Dhobi Hari are engaged in farming, and some had a few

GHOGA PUL – WARD NO. 12 BIRATNAGAR POCKET – B.



cattle. However, they had the worst drinking water supply problems, and they did not appear to be very anxious to improve their situation through a participatory approach.

Pocket C. Rani/Mills

The Rani/Mills area is quite large, and most residents work in the factories located there. Rani/Mills covers a wide area including ward numbers 19, 20, 21 and 22. However, this study focused only on the most deprived parts of wards 19, 21 and 22 (see Map). The large factories here include the Raghupati Jute Mills, Biratnagar Jute Mills, Shah Ganapati Cotton Mills, Arun Udhyog, Ashok Textile, Hulas Metals, Ghuheshwari Solvent and Shah Udhyog (Hides). Some factories provide living quarters to workers, but many live in their own or rented accommodation.

The major problems in this community are lack of drainage, toilets, health education, drinking water, education and a clean environment. Only one school, which goes up to fifth grade, provides services for the children of ward number 19. This school was over-crowded with around 700 students, and has hardly any room to accommodate additional students. The school even has to hold classes under a tree in the open ground in front of the school. There is no drinking water or toilet, and everyone uses the nearby pond for defecation.

Money lending practices were common in this area. The interest rates were extremely high, ranging from 150 to 450% per annum (in practice, interest is calculated on a monthly basis). Residents borrow money for a variety of reasons. One key informant cited a case where a man had to borrow money to take care of his wife and newborn baby. The money lender gave it on condition that the borrower paid Rs.10 per week for each Rs.100. The man had no choice but to accept these terms.

Since most of the houses were rented, the tenants felt that it is their landlord's responsibility to clean and provide better facilities. However, the landlords consider these chores the duty of area residents. Two major problems emerged: stopped-up drains and overflowing of the few old toilets that exist. Children defecate on the road side, and even a few older people do the same, before daybreak.

All houses were single-storied, using wood and bamboo construction and roofing materials such as tiles, thatch and corrugated iron sheets.

Ward number 19 is a community of industrial labourers while ward number 21 also has some farmers. Ward number 22 is near the Raghupati Jute Mills and is quite crowded. Many residents run pubs and make their own rice wine. This area is also known for prostitution. Visitors come from nearby

BIRATNAGAR

Pocket-C

GAUTAM BUDDHA ENGLISH SCHOOL

Rani/Mills Area

ASHOK TEXTILE

N

E

MERI GOLD ENGLISH SCHOOL

BANK ROAD

RASTRIYA BANIJYA BANK

NO.19 WARD BUILDING

sweeper Area

HADTALI HAT

BAL BHADRA ROAD (MALAYA ROAD)

DIG ROAD

NO.19

HARI NAGAR BHATTA

NO.19

NO. 21

BIDYA BIKAS P. SCHOOL

NO. 21

SUDI

NO21

NO. 21

KHATWE TOLE

COM-DRINKING WATER

DRINKING WATER TANK

RADHA KRISHNA CHOUK

NO.21

NO.21

JANBIKASH HIGH SCHOOL

RAM JANAKI TEMPLE

MILLS AREA

COM. TAP

NO 21

NO.21

NO.21

JOGWANI (INDIA)

NO.22

No drainage

RAGUPATI ROAD

NO.22

WELL USED FOR WASHING CLOTHES AND FEED FOR CATTLE

houses in the middle area of this Tole, on this open place people toilet defecate there. This raises a great problem.

MATARWA

Indian towns on the evening train for drinking. As a result, this train is now jokingly called the *sarabi* (drunk) train. The area has a mix of Muslims, Rais, Limbus Newars, and others. Muslims generally do not like the pubs, and some conflicts were observed between the Muslims and other residents. Leftover alcoholic drinks are generally thrown into the roadside drains to rot, creating a foul smell. No efforts were made to clean them up, contributing to the environmental problems in this area.

Hari Nagar Bhatta and Mehatar Tole are the other two pocket communities within the Rani area that were clearly facing problems of drinking water, toilet facilities, sewage and education. Hari Nagar Bhatta residents have problems of land ownership resulting in disputes with the Biratnagar Jute Mills. The factory claims the land and deducts rent from the salary of the labourers. Local people argue that if the land belongs to the factory, rental charges should be taken from all who live in that area, and not just factory workers. Some retired workers do not receive their pensions (which are supposed to be Rs.10,000), as the factory set a condition that they must first leave the area.

SECTION 2. DEMOGRAPHIC CHARACTERISTICS

A total of 422 respondents (211 male and 211 female) were interviewed from the three pocket areas. Each pair of male and female respondents were from the same household, and all males were heads of household. Female respondents were their wives (92%), mothers (4%) or other family members (4%). A majority of sample families (66%) were nuclear, that is, only two generations were living in the household.

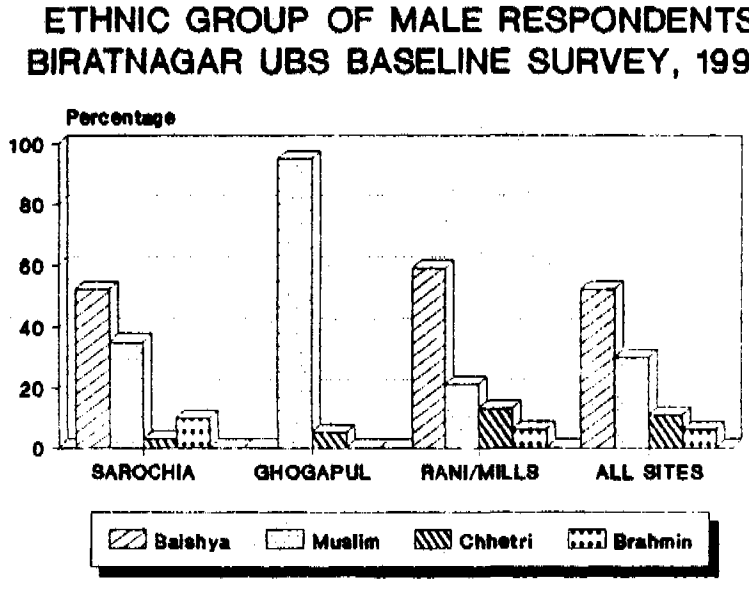


Figure 1

About 63% of respondents said that their present place of residence is their parental home, while 37% reported that they had migrated to this place. Over 47% of those from outside the area came from India, 24% were from outside

Biratnagar and a few were from other places within the Biratnagar area; one was from Bangladesh.

AGE-SEX DISTRIBUTION, SAMPLE POPULATION BIRATNAGAR UBS BASELINE SURVEY, 1990

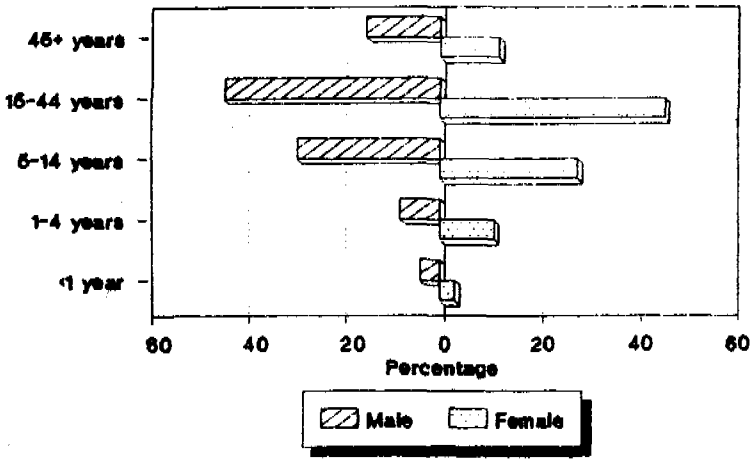


Figure 2

The majority of the respondents were Baisyas, followed by Muslims, with Brahmins and Chhetris making up only about 17% of the sample (Figure 1 and Annex 3, Table 1). Ghogapul had the highest proportion of Muslims, who are mostly tailors. The Islamic faith does not segregate caste according to occupation. However, the social environment has conditioned their minds in such a way that they also consider themselves as belonging to an occupational caste.

About 77% of all respondents were Hindus, 21% Muslims and only about 1% followed other religions. Ghogapul had a higher proportion of Muslims than other pockets.

Children 0 - 14 years of age and women made up about 70% of the population in the households surveyed (Figure 2 and Annex 3, Table 2). About 4% of the population were infants less than one year of age. The average family size in the sample was 5.4, with slightly more males (2.8) than females (2.6).

AVERAGE NUMBER, LIVING AND DECEASED CHILDREN, AND IDEAL NUMBER OF CHILDREN BIRATNAGAR UBS BASELINE SURVEY, 1990

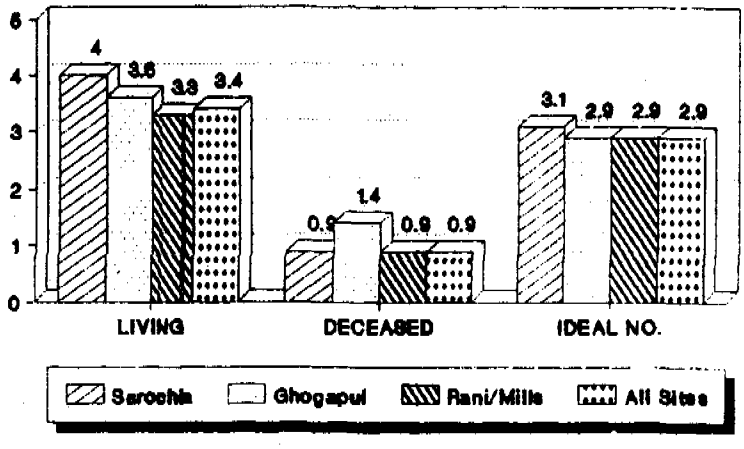


Figure 3

Female respondents' average number of living children was 3.4, while the ideal number they would like to have was slightly less at 2.9 (Figure 3 and Annex 3, Table 3). The average number of children who had died per family was 0.9.

AVERAGE AGE AT MARRIAGE (CUMULATIVE) AMONG FEMALE RESPONDENTS BIRATNAGAR UBS BASELINE SURVEY, 1990

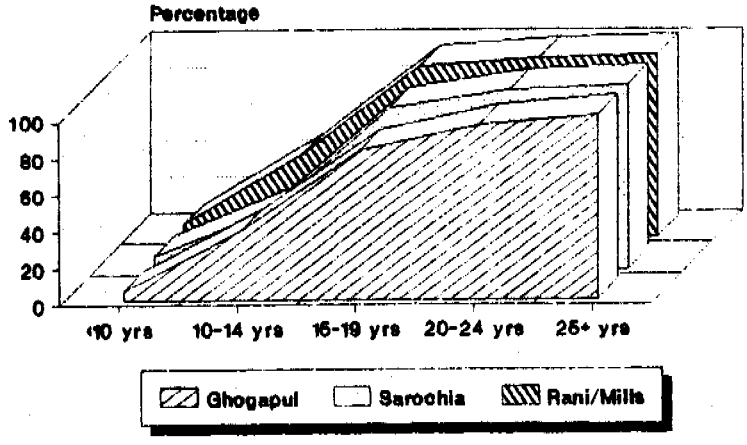


Figure 4

Almost one-half of female respondents were married between the ages of 15 - 19 (Figure 4 and Annex 3, Table 4), and about 7% at less than 10 years of age.

SECTION 3. ECONOMIC CONDITIONS

About 31% of the males interviewed were engaged in labouring work. Business occupations were more common in Ghogapul (47%), while labouring was most common in Sarochia and Rani/Mills (Figure 5 and Annex 3, Table 5). Respondents who said they also had secondary occupations cited business, daily wage labouring and farming.

Most (80%) of the female respondents were housewives and 9% were shop-keepers (Figure 6 and Annex 3, Table 6). Women from Sarochia were more oriented to skills of running shops and other activities, whereas Ghogapul residents were quite conservative in terms of women working outside the home.

Women in this pocket still use veils to cover their faces, know very little or no Nepali language and do nothing without permission from their husbands. It was, in fact, difficult for the survey team to conduct focus group discussions in this area. The few groups held revealed that these women have very little interest in income - generating activities in their own right. They stated that while their family needed additional income, assistance should be directed to their husbands.

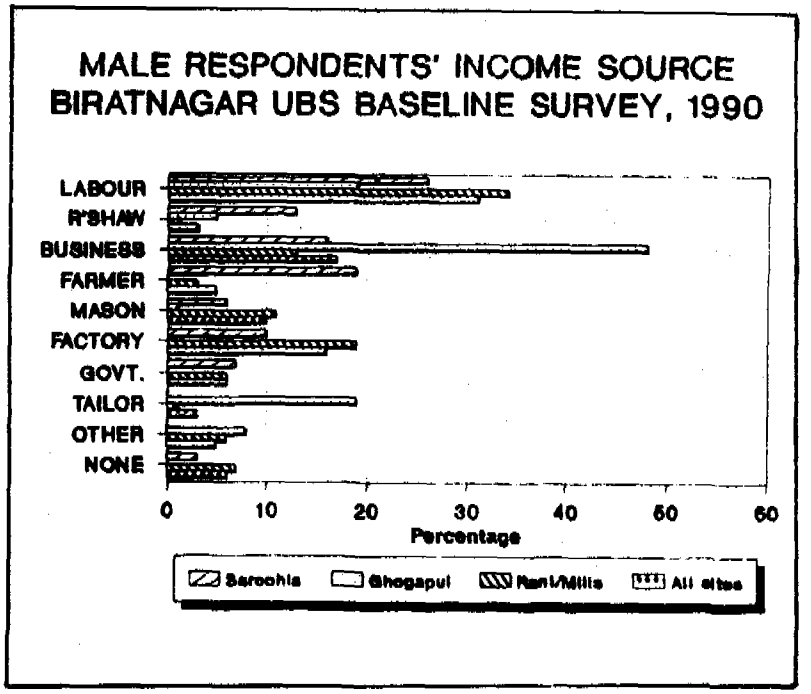


Figure 5

The few women in Ghogapul who reported running shops were in fact helping their husbands and may not be able to run businesses on their own. Women from Sarochia and Rani/Mills appeared to have better potential for training in income-generating activities.

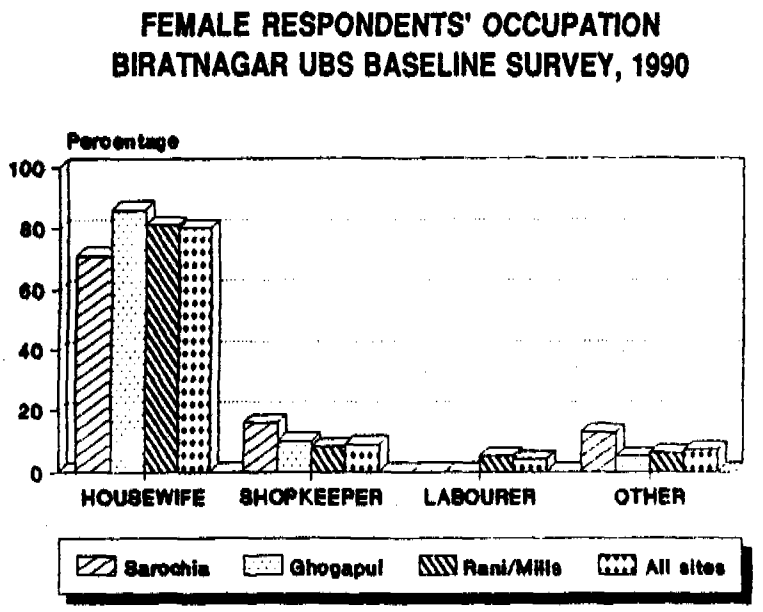


Figure 6

Only 6% of female respondents reported that they made items for sale, including food products (77% of those engaged in production), woolen goods and tobacco (8% each). Less than 6% of women interviewed said that they had earned money during the past year, and the same proportion reported that they received other income (*pewa*).

A majority (72%) of female respondents expressed a desire to earn more through income-generating activities. Activities preferred were running shops (72%), services (20%) and poultry farming (11%). About 7% were interested in any activity of this nature.

Residents of Ghogapul (ward number 12) were anxious to receive assistance in the form of sewing machines to boost their earnings. Similarly, Sarochia (ward number 7) respondents showed interest in small businesses which could be run by women.

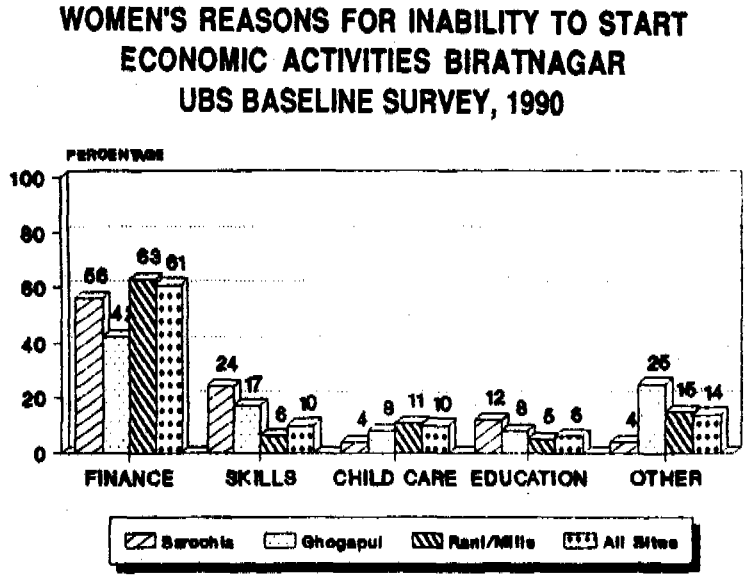


Figure 7

Female respondents expressed lack of finance as the dominant reason (61%) for their inability to initiate economic activities (Figure 7 and Annex 3, Table 7). Residents of the Rani/ Mills area were not able to identify for which specific economic activities they would require help. Mehatar Tole respondents (occupationally sweepers) stated that they would prefer some help to improve their present work.

Many young men come from India as daily migrants in the big industries in the Rani/Mills area. Respondents felt that their own young men needed more opportunity for employment in these factories.

Residents in this area also expressed a need for financing, more than skills development and education, to be able to initiate economic activities. To a lesser degree, those from Sarochia and Ghogapul felt that financial assistance was needed, but they also recognised lack of skills as an impediment for them. Further probing in focus group discussions revealed that almost all of the

participants from the Rani/Mills area preferred financial over other types of assistance, although when asked how they would make use of it, their answers were rather vague: "anything can be done with money"; "some business can be started", "buy some land", and so on.

Respondents spent nearly one-half of their personal income on food while general household expenses, children's education and clothing were other major budget items (Figure 8).

About 33% of male respondents had taken loans from various sources such as merchants (73%), the office or factory where they worked (13%), friends (4%), relatives (4%), a bank (4%) or cooperatives (*sajha*) (1%). The interest rates charged by merchants ranged from 80% upwards. The rates were charged on a monthly or weekly basis, usually Rs.5/ to Rs.10/ per Rs.100/ borrowed.

Suggested Strategies - Income-Generation and Skills Training

As improved economic status has a direct link to children's education and improved health and nutritional status of family members, assisting the urban poor of the targeted area to generate additional income would obviously be a welcome move. However, the success of income-generation activities rests on several factors, particularly where the targeted urban poor in a municipality such as Biratnagar constitute a very diverse group, and each pocket has its own orientation and characteristics. The following considerations may, however, be helpful:

EXPENDITURES, MALE RESPONDENTS (%)
BIRATNAGAR UBS BASELINE SURVEY, 1990

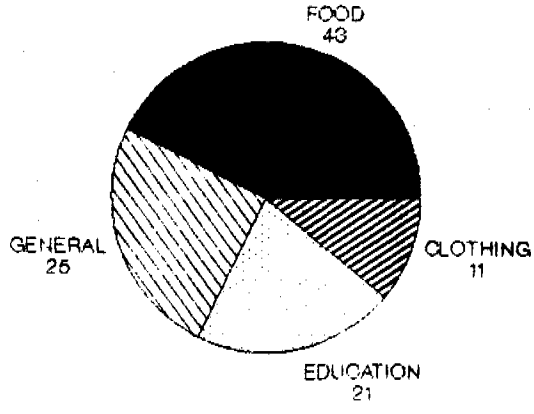


Figure 8

1. In developing income-generating activities for these deprived urban poor, much can be learned from previous efforts, such as the Production Credit for Rural Women Project (PCRW) which had a positive impact on its targeted beneficiaries. Community development activities provided an entry point for the PCRW, developing a base of skills, trust and self-confidence, upon which a credit component offering credit facilities for targeted women was built.[3]

[3] An Impact Evaluation Study of the Production Credit for Rural Women Project, conducted for UNICEF-Nepal by the Centre for Women and Development, 1989. pp. 88-89.

2. The decision-making capability of women in the sample, particularly in Ghogapul, was found to be very weak, since women are traditionally allowing their husbands to make decisions. Hence, to ensure that women become involved in income-generating activities and related skills development training, their spouses must be motivated to allow and encourage their wives to participate.

3. Only 10% of respondents expressed lack of child care as the major constraint to involvement in income-generating activities; however, this factor may become more important once other constraints are removed, so the situation may require later review.

4. While programme implementers should be sensitive to the respondents' expressed interests in specific economic activities, care should be taken to help participants chose what would be most beneficial to them. For example, while running shops was an expressed preferred activity, the community can only absorb a few. Similarly, while the preference of the Mehatar Tole sweepers' group was to develop or be employed in this same occupation, this work will require offices or agencies to absorb them, which may be limited. Developing income-generating activities will thus require more in-depth investigation, considering such variables as the technical viability (needed skills/training, availability of resources and support facilities), market viability (pricing and demand structure of products, support facilities for marketing) and linkages and coordination or other support mechanisms required (credit, technical assistance, marketing) in each pocket.

5. On the basis of the information available from this survey, and pending further work in this area as suggested above, possible opportunities for income-generating activities by pocket could include the following:

   Sarochia, ward number 7: Small-scale cottage industries for males; small-scale shops and businesses, including tea and fruit shops for females; recycling of tin and used materials; food-marketing and processing.

   Ghogapul, ward number 12: Development of existing skills as tailors and laundrymen; dry-cleaning shops; other small shops, such as fruit-selling.

   Rani/Mills, ward numbers 19, 21, 22: Raising poultry; support services such as janitorial work, recycling and junk collecting (the latter especially for children; food processing and marketing; improvement of quilt-making skills (for *Dhuniya* in ward number 22); improvement of sweepers' work (ward number 19).

SECTION 4. EDUCATION

The fact that two-thirds of Nepal's population is still illiterate has major implications for the potential pace of development. Of particular concern to development planners is the fact that literacy among females is only 18%. No accurate data are available on school attendance, and many students are only nominally enrolled, especially girls, who do not actually attend due to labour demands on their time, as well as social perceptions as to the value of education.[4] These observations at the national level also reflect the status of education in the areas covered by the present study.

Literacy (the ability to read and write) is low in the study sample, with only 18% of female respondents over six years of age able to read and write, compared to 74% of their male counterparts. Overall, 47% of household members were illiterate, 67% among females and 30% among males (Figure 9 and Annex 3, Table 8).

Only a few school-age children were actually attending school. In the sweepers' area of Mehatar Tole, only ten or twelve children went to class, and many children in the tailors' area did not attend because they were assisting in tailoring work. In most areas, children had never or stopped attending because their families could not afford the fees and other expenses (books, stationery and uniforms). In one school, free education stops at Class 3, and in others up to 32% of fees had to be paid for Classes 1 - 6 and 50% for higher classes (amounting to a few rupees per month). The female focus group from ward number 21 of Rani area said that "they were fed up with the issue of uniform requirements in the school." Parents expressed the view that if education for their children, including uniforms, could be subsidised by the government, they might be able to send their children to school.

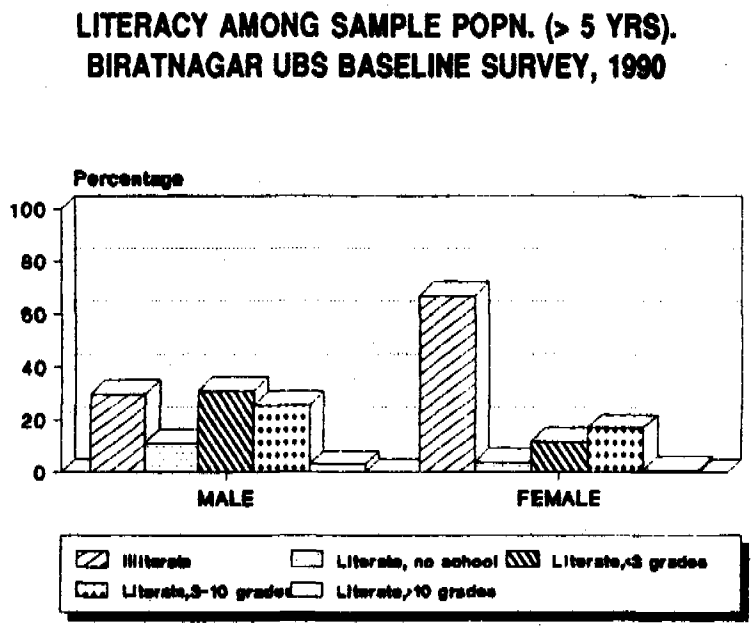


Figure 9

[4] Nepal: Policies for Improving Growth and Alleviating Poverty, A World Bank Country Study, The World Bank, Washington, D. C. 1989, pp. 44-45.

In addition to economic considerations, low attendance in schools and high drop-out rates are directly related to the poor quality and lack of relevance of the education currently offered, problems that stem from policies which have concentrated on expansion of facilities while neglecting quality.[5] Participants in focus groups stated that school teachers behaved badly, punished students that did not conform to the uniform requirements, were not efficient and tended to be absent during school hours. The teachers' attitude was partly a result of the traditional image of a teacher and partly due to looking down on the poor and certain castes. Schools were also observed to have very poor facilities - no benches or desks and very congested classrooms.

While some children who did not attend school helped in the household, farm or business-related works (tailoring, scavenging and cleaning and selling plastics or oil tins, or bringing grass or fodder), others just passed their time playing and watching movies.

Parents' level of literacy highly influences their perception of the relevance of education for their children. This situation was well-manifested in the comments obtained during focus group discussions, where some participants from the sweepers' group of Mehatar Tole expressed the view that to be literate in their occupation is unnecessary for themselves and for their children, who are likely to be sweepers too. The same situation prevailed in the tailors' areas, where most children assisted in tailoring and did not attend school.

Suggested Strategies - Education

1. The involvement of school teachers in the UBS programme may interest them in motivating the children of deprived areas to attend school. Involvement may also bring changes in the behaviour of the teachers towards poor students. At the macro level, associated measures for education must aim to improve the selection, training and career streaming of teachers, to establish a school inspection system, and to provide incentives to schools and families to increase female enrollment in the programme area. The UBS programme can contribute to these efforts through assistance to schools in establishing criteria for the selection and training of teachers, and in developing a sound monitoring and supervision scheme for both school teachers' performance and school attendance among students. Incentive payments for teachers may encourage better performance. Training on improved teaching methods and student discipline can also be included.

2. UBS should consider supporting existing schools to improve the quality of education and performance of school personnel. For example, the only

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5 Ibid.

primary school in the Raghupati Mills area has no benches, chairs or desks, and congestion owing to limited space makes students uncomfortable, especially during the summer. Generally, the environment and facilities of schools accessible to the residents of the urban poor pockets covered in this study require improvement.

3. UBS could assist in organising parent-teachers' associations in the schools to help establish policies to encourage school attendance (such as flexibility on uniform requirements, proper behaviour of teachers towards students, and so on).

4. Poverty was stressed as a major factor preventing children from attending school. The economic burden of attendance must be reduced. Criteria to waive requirements among the poorest sector should be established, or assistance in-kind (uniforms, stationery and books) should be provided. Income-generating projects for school children after school hours or during holidays could also be designed and facilitated by the schools and the UBS programme.

5. Parents who are sweepers and tailors need to be persuaded to have their children educated. They should be helped to see that with education, their children do not necessarily have to be sweepers and tailors and could have better economic prospects in the future.

6. The Muslim *madarasa* (which gives children basic Muslim education) may require assistance in finding competent teachers. Without changing its present role, it could be converted to a formal primary school.

7. To upgrade the literacy status of females in the study area, adult literacy and education programmes need to be stressed, also. As with income-generation activities, husbands of married women should be motivated along with the women for skills development and literacy campaigns. A constraint related to attitude is the financial gain that adults tend to expect in the short-term period. For literacy or skills development activities, long-term benefits will not attract adults easily, and hence a strategy to modify perceptions may have to be developed.

8. The schools should be used as a focus of community activities. To do so, the community and teachers need to develop a mutual support and cooperation arrangement in planning community development activities.

9. While children of primary school age are required for work in the home or on the farm, it is not known how essential this work is or to what extent it could be shifted to other family members. A lack of adequate information on parents' attitudes towards child labour, or what activities they feel are most appropriate for young children, leads to contradictions. Additional

information-gathering in the area may spread light on how to resolve this constraint to children's attendance at school.

SECTION 5. WATER SUPPLY AND SANITATION

The root causes of ill-health in Nepal lie in large measure in widespread and extreme poverty, and in an associated lack of basic infrastructure. The pervasive inadequacy of water supply, sanitary excreta disposal and generally poor housing conditions, among other items, contribute to limiting the scope for personal and domestic hygiene and fostering the spread of disease.[6] Particularly in an urban poor setting such as in Biratnagar, these inadequacies, coupled with the public's lack of understanding of the relationship between poor environmental sanitation and health and disease, all contribute to the prevailing bleak picture in the study area.

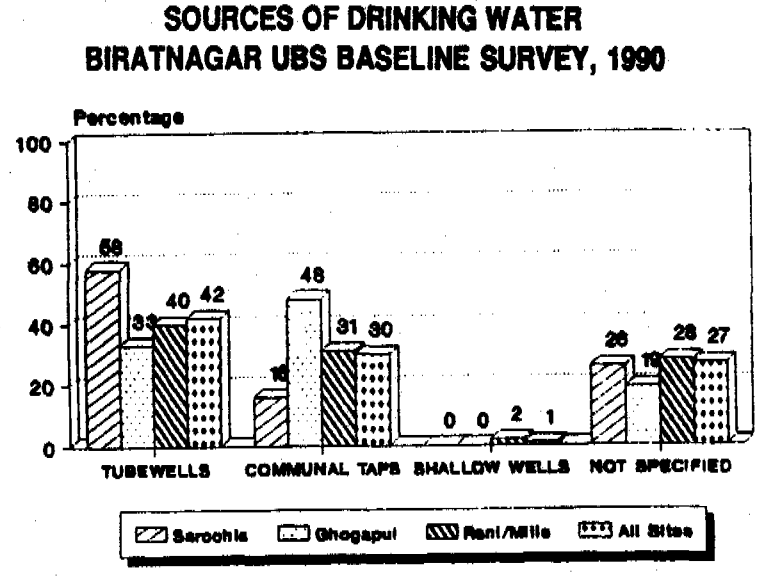

Figure 10

WATER SUPPLY

Only 26% of women respondents said that they had a convenient water supply. The most commonly reported source of drinking water was a tubewell (Figure 10 and Annex 3, Table 9). While the use of tubewells may appear satisfactory, their surroundings were mostly very squalid and foul. The areas around them were unpaved and dirty water and mud surrounded them. Water containers normally rest in the dirty water while they are filled, and the containers are generally not cleaned before being taken inside the houses. Further, children defecate around the tubewells and make the place filthy.

Buckets (84%), cooking pots (5%), tins (2%) and clay pots (1%) were used to collect water. Almost all (97%) respondents said they cleaned their containers before use, with ash and water (59%), soap and water (16%), water and soil (13%), water only (12%) or straw and water (1%).

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6 Op. Cit., World Bank Country Study, p. 53.

Residents reported collecting an average of 70 litres of water per household per day, with a range from 15 to 228 litres (Table 3).

Table 3: Daily Water Usage (litres/day/household), by Pocket

	Litres			
	Sarochia	Ghogapul	Rani/Mills	All Sites
Maximum used	250	85	250	228
Minimum used	10	20	15	15
Average	82	56	71	70
Number	31	21	159	211

An average of about 48 litres per household per day was used for laundry, with sanitation, cooking, toilet purposes, and drinking taking up significant amounts. The pattern of use was similar in all pockets (Figure 11 and Annex 3, Table 10). (These figures total more than the average of 70 in Table 3 because the two questions were asked separately.)

About one-half of respondents reported having water problems. Of the various problems reported, water insufficiency was the most common (Figure 12 and Annex 3, Table 11). Over 12% of respondents always had water problems, while 20% reported seasonal water problems only during July, August and September, the monsoon period. Hari Nagar Bhatta area has only one communal tubewell which is always crowded. Respondents said they have to queue for two to three hours to obtain water. Residents maintain this tubewell collectively, and said if an additional tubewell would be installed in the area they could also maintain it.

Over one-half of those interviewed (52%) showed a readiness to participate in improving the water situation in their area. Of these, 36% were willing to contribute financially while 64% would contribute labour. Residents suggested installing water taps in every house (46%) and increasing the number of community taps (9%) to alleviate water problems.

Ironically, researchers observed that, although many people were aware of the poor water situation in their community, they did not seem to take this matter seriously. Perhaps because of their long acquaintance with these conditions, they had become used to them and did not mind any more.

Most (60%) respondents felt that the central government should be the responsible agency for water supply, while 16% felt it should be the local municipality, and less than 1% felt that the users themselves should be responsible. About 23% did not have an opinion. During the focus group discussions, the female participants had very little knowledge of the agencies existing in the community and further, did not seem to have much interest in knowing. They seemed to regard this matter as beyond their domain, stating that their husbands "would know better".

On the other hand, their male counterparts in the focus groups tend to expect outside agencies to be responsible for their water supply, with prominent

WATER USED FOR HOUSEHOLD ACTIVITIES
LITRES/HOUSEHOLD/DAY
BIRATNAGAR UBS BASELINE SURVEY, 1990

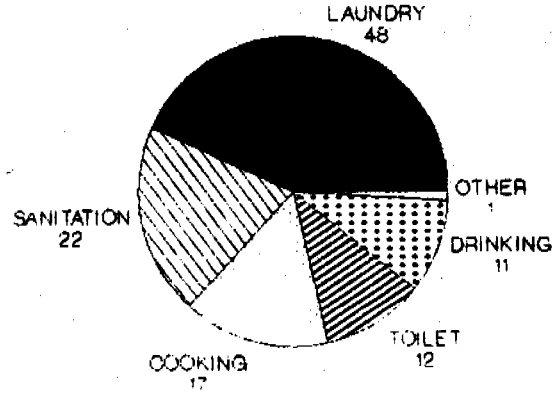

Figure 11

DRINKING WATER PROBLEMS
BIRATNAGAR UBS BASELINE SURVEY, 1990

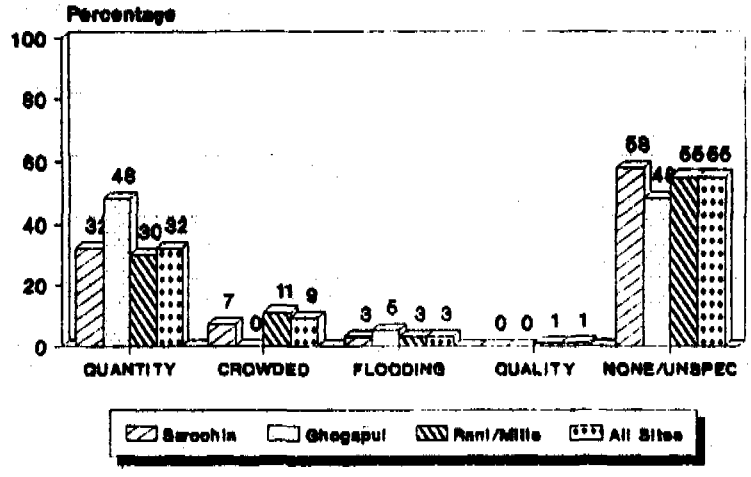

Figure 12

reference to the municipality. Very few stated that they could do something to maintain their own water source. This lack of a feeling of responsibility may be due to inadequate orientation on the part of the agency involved in providing drinking water in the area. The existing approach of the municipality in selecting project sites may have partly contributed to such a perception. Community members expressed their dissatisfaction with the efficiency of the municipality, saying "its promises remain unfulfilled". Further, they added that the municipality does very little work, and what it has done so far was often not related to their needs.

Knowledge on Water-Related Diseases

About 46% of respondents stated that they understood the bad effects of poor drinking water facilities. Thus, the major water-related diseases reported were the common cold, fever and stomach-ache (Table 4). However, respondents were generally unable to differentiate symptoms from diseases, and did not have a clear idea of which diseases were associated with poor water; they tended to regard symptoms as diseases. During focus group discussions, people from Sarochia stated that during the summer, most people suffer from malaria, while in the winter, children, especially, got ill with measles and diarrhoea. Participants thought that these problems occurred due to stagnation of rain water and domestic waste water, especially during the monsoon season. They seemed to understand the relation of these situations with the occurrence of disease, stating that "diseases, particularly gastro-intestinal ones, occur during this time because of this situation."

Table 4: Diseases (and Symptoms) Contractable through Poor Water Supply, as Expressed by Female Respondents, by Pockets*

Diseases/Symptoms	Sarochia		Ghogapul		Rani/Mills		All Sites	
	No.	%	No.	%	No.	%	No.	%
Common Cold	10	67	3	25	30	43	43	44
Fever	1	7	1	8	10	14	12	12
Stomach-ache	2	13	2	17	11	16	15	15
Dysentery	2	13	0	-	4	6	6	6
Cholera	0	-	2	17	3	4	5	5
Measles	0	-	2	17	1	1	3	3
Vomiting	0	-	0	-	2	3	2	2
Malaria	0	-	0	-	1	1	1	1
All diseases	0	-	2	17	2	3	4	4
Don't know	0	-	0	-	6	9	6	6
Total (Number & %)	15	100	12	101	70	100	97	98

*only respondents who said they knew of bad effects of poor water.

Drainage and Disposal of Waste Water (Sullage)

Almost all respondents (96%) threw away waste water from cooking and washing around the house and even on the road, outside their area. Only 4% reported that they threw it into their fields. Except for one house in Rani/Mills, none had a water drainage facility from the kitchen to an outside drain or to another safe place. Respondents were also asked to report if water collected around their houses. About 38% reporting that it did not collect while 57% said that water flooded just outside their door steps. Waste water from dishwashing, laundering and bathing standing in clogged, open ditches or collecting in low-lying areas creates an ideal breeding ground for disease organisms and vectors.

Drainage was one of the major problems in all the pocket areas, and most respondents (91%) expressed the need for proper drainage and sewerage systems. This result parallels the findings of the MSUD[7] study that drainage is the primary urban service problem in *terai* towns. The MSUD study further stated that stormwater drainage is nil because as of 1987 no town had drainage works specifically for this purpose. In some urban areas, roadside drainage channels do exist, primarily for the protection of the roads themselves, but these do not generally connect with planned works for area-wide stormwater drainage.[8]

Sarochia and part of Rani/Mills have major drainage problems which become acute during the monsoon. In Sarochia, residents said that all they could see in the road was stagnant water such that they had to carry their slippers or shoes while walking. The part of Rani/Mills near the Customs area also suffers from the same situation, created largely because of the erection of a wall by the Nepalese Customs office. Several families suffer badly due to the lack of drainage in this area. One man of about 60 years narrated almost tearfully the situation during the monsoon when his aged father had to walk through knee-high water to go to the pit latrine which was raised about four feet above ground to protect it from flooding. The situation was further exacerbated with the tendency of the latrine to overflow, with the excreta mixing with water which flows and then stagnates around the house. Without space through the Customs wall on the western/southern side, this problem is difficult to resolve.

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7 *Nepal Urban Development Policy Study*, Management Support for Urban Development Project, HMG/UNDP/WB/USAID/PADCO Inco., January 1990.

8 Op. Cit., World Bank Country Study, p. 54.

ENVIRONMENTAL SANITATION

As stated earlier, the limited scope for personal hygiene and sanitation brought about by, among other conditions, lack of supportive facilities and services, contribute to the spread of diseases and therefore poor health. In most parts of Nepal, the unhygienic environment in which children grow up favours the spread of helminthic infections, the infestation rate of which is 87%, based on a small-scale survey carried out in 1986.[9] To be able to address the unhygienic environment in urban areas of Nepal, in this case in Biratnagar, the study assessed the status of environmental sanitation in the study areas and asked about the respondents' perceptions and practices on related matters.

Defecation Practices

Respondents reported that family members defecate in open fields, their own toilet and community toilets (Figure 13 and Annex 3, Table 12). In Sarochia, 74% reported using fields. The problem of lack of toilets was felt very seriously in ward number 21 of Rani/Mills, where many residents use the space available near Mantha Pokhari. They would like to have two communal toilets built, which their children would also use, and said they were willing to maintain and clean them. Residents of Hari Nagar Bhatta suggested utilising empty land in their area for constructing two communal toilets to solve their problem.

Of the respondents who had their own toilets, a large majority (91%) reported that their children also used them. Cleaning hands with water and soil or soap after defecation was reported by most (96%) of the respondents and their children. However, cleaning hands after washing children who defecated was not strictly practiced. From

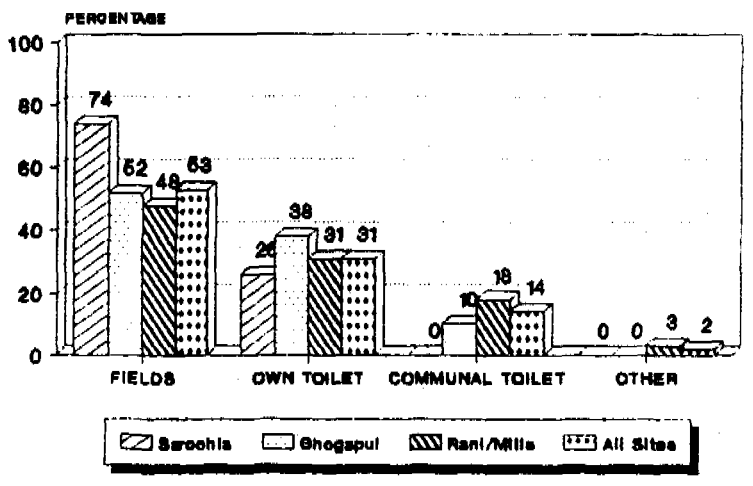

Figure 13

9 Basic Survey Report on Population and Family Planning, JICA, 1986.

information obtained during focus group discussions and the research team's observations, most often parents just rub their hands on the ground (that is, "clean" them with soil) and then wash with a little water. This poor sanitation practice related to children's excreta seems not to be considered as seriously harmful to health, which is in contrast to the respondent's expressed understanding of the relationship of children's excreta to disease (see below).

Knowledge on Excreta-Related Diseases

About 54% of respondents stated that children's excreta is harmful and listed a number of effects that occur due to poor handling of excreta. A foul smell was one of the reported problems (Table 5). However, many of the areas the survey team visited smelled bad, but the local residents did not express any serious concern. Most respondents just passively stated that "it would be nice if this place were clean" when asked whether they would like a cleaner environment.

Table 5: Women's Perceptions of Harmfulness of Children's Excreta, by Pocket*

Harmful Results	Sarochia		Ghogapul		Rani/Mills		All Sites	
	No.	%	No.	%	No.	%	No.	%
Diseases (non-specific)	12	75	6	75	61	68	79	69
Foul smell	2	13	0	-	8	9	10	9
Stomach-ache	1	6	0	-	5	6	6	5
Cholera	1	6	0	-	5	6	6	5
Vomiting	0	-	0	-	5	6	5	4
Fever	0	-	0	-	4	4	4	4
Other	0	-	0	-	1	1	1	1
Don't know	0	-	2	25	1	1	3	3
Total (Number & %)	16	100	8	100	90	101	114	100

*only those respondents who thought excreta were harmful.

Awareness on Sanitation

A majority (77%) of respondents knew that lack of sanitation causes various types of illnesses. However, a commitment to identify the causes and improve the situation was lacking. Colds, fever, dysentery and stomach-ache were the major diseases cited as caused by poor sanitation (Table 6). Ghogapul residents said skin diseases were the number one problem, while those from Sarochia and Rani/Mills cited common colds.

Table 6: Women's Perceptions of Diseases Caused by Lack of Sanitation, by Pocket*

Diseases	Sarochia		Ghogapul		Rani/Mills		All Sites	
	No.	%	No.	%	No.	%	No.	%
Common cold	8	32	4	24	33	24	45	25
Fever	6	24	3	19	28	20	37	20
Dysentery	5	20	0	-	23	16	28	16
Stomach-ache	3	12	2	13	19	14	24	13
Cholera	0	-	1	6	6	4	7	4
Skin diseases	0	-	4	25	3	2	7	4
Vomiting	0	-	0	-	6	4	6	3
Headache	1	4	0	-	3	2	4	2
Malaria	1	4	0	-	2	1	3	2
Dizziness	0	-	0	-	1	1	1	1
All diseases	0	-	0	-	1	1	1	1
Don't know	1	4	2	13	15	11	18	10
Total (No. & %)	25	100	16	100	140	100	181	101

*only those who thought lack of sanitation caused disease.

Cleaning and Bathing Practices

Women were asked to report their and their children's monthly frequency of bathing and why they bathed. Children were given baths an average of 12 times a month during winter and about 23 times during summer. For adults, the figures were about 17 times a month during winter and about 25 times during summer. Some respondents said they never bathed their children. Over one-third of women in Sarochia said that they bathe to alleviate heat; keeping clean was more important in Ghogapul and Rani/Mills.

A little more than one-half of female respondents said they had no problems keeping their children clean. However, the remainder reported various problems (Table 7). Respondents' appeared to perceive that cleanliness comes from being economically well-off. Focus group discussions also revealed that people generally feel that cleanliness in their surroundings is the responsibility of the municipalities or any other authority, and not necessarily theirs. It follows that even cleaning their own children was not felt to be a priority for them, and very little concern on hygiene and cleanliness was apparent. Parents who did clean their children did so for disease prevention (64%) or to make them neat and tidy (26%), while others did not know why.

Table 7: Problems in Keeping Children Clean, Female Respondents, by Pocket*

Problems	Sarochia		Ghogapul		Rani/Mills		All Sites	
	No.	%	No.	%	No.	%	No.	%
Economic problem	12	60	5	71	52	75	69	72
Children refuse	4	20	0	-	3	4	7	7
Lack of water	0	-	0	-	2	3	2	2
No time	0	-	0	-	3	4	3	3
Others	4	20	2	29	9	13	15	16
Total (No. & %)	20	100	7	100	69	100	96	100

*only those respondents who reported difficulties.

Suggested Strategies - Water and Sanitation

1. Improving the water supply, latrine and drainage problems in the area requires heavy investment and a long-term approach. The UBS programme should explore other donor-assisted schemes in the area, and develop collaborative efforts for interfacing. One possibility is linking activities with the factory management in Rani/Mills, where many factory workers reside. Similarly, better-off residents (mostly businessmen) in Sarochia could be encouraged to participate in and contribute to the maintenance of environmental sanitation in their community. Since the environment affects them, and some of them have shown serious concern about the cleanliness of their locality, cooperation from them seems possible.

2. The drainage problem is so pervasive in the study area that community development interventions may not be sufficient to solve it. Hence, other efforts at the community level need to be initiated with strong communications and a motivational campaign to maintain the efforts continuously. Such efforts may include developing a consensus among community members to enforce the practice of only depositing waste in a fixed place, with the municipality arranging for waste disposal from these containers; not throwing waste water in front of their houses or at the roadside; keeping the roadside canal dry so that mosquitos will not breed there; teaching children and adults alike to use toilets and maintain them; and so on.

3. The local NGOs in the municipal area (but not within the study site), one of which is Adarsha Nirman Mandir, may be a source that can be tapped. The Principal Investigator of this study discussed this possibility with members of Adarsha Nirman Mandir and found that they were interested in becoming involved in these pockets, though they were not yet specifically working there. The organisation's credibility was quite high in social work

in the municipality. Other agencies, such as the Family Planning Association of Nepal and the Nepal Red Cross Society (Morang Branch) have district offices located within the municipality. Adarsha Bahumukhi Club in pocket C, Rani area, ward number 21, was found to be also active. It was managed by young boys of the community, mostly catering to young people for physical fitness, sports and recreation. This club could be tapped for works such as health education, sanitation, immunisation, adult literacy and so on. During the field survey, the members showed an interest in contributing to the UBS programme, and the club can be considered one of the potential local NGOs to join with the municipality. Female members of the community could be encouraged to form their own club or join the existing ones. Basic training and orientation could be arranged through this programme to help them get organised initially.

4. Consideration of the perceived needs of community members is essential before implementing any activity, i.e. installing communal toilets, improving roadside canals or developing users' groups. Implementation contrary to their perceptions and understanding of needs may not prove beneficial in the long term. However, at the moment the community's poor understanding of the relationship between a clean environment and disease, and their knowledge of the simple things that could be done even in their present condition, is very limited and/or they have a feeling of fatalism regarding their circumstances. For many problems, they consider their economic situation ("finance") as the major constraint, even in keeping their children clean. Hence, a great deal of educational extension activity is required to change their perceptions, and to develop their confidence and motivation so that they take a greater part in solving community problems without necessarily depending on outside assistance.

5. As recommended in documents on improving water supply and the promotion of hygiene, women should be given a voice in the selection of tap sites, on user committees and in maintenance, since they spend more time collecting and using water than men, and they play a critical role in determining family hygiene.

6. Another possibility for improving the drinking water situation in the area is through chlorination of wells, although working out the logistical arrangements of supplying chlorine in the right amounts in a timely fashion might be difficult.

7. In promoting the construction of toilets, the UBS programme can benefit from UNICEF's own experience with its existing water and sanitation programmes in the *terai*. Similarly, the experience of the Small Farmers' Development Programme (SFDP) in sites where they also have water supply activity and where income-generation schemes relating to the production of

materials needed for latrines have also been initiated,[10] may be worth considering.

8. The burden of imparting hygiene messages in previous MLD schemes fell entirely on technicians, but their capacity to act effectively has been undermined by a lack of support from other sectors. The members of the local Mothers' Club in Urlabari, for example, were trained and became active as health promoters, advising other women on nutrition, sanitation and ORT.[11] Hence, the municipality could consider utilising locally-established organisations that have shown initiative in other community development projects in the area. However, as the targets are the urban poor, where caste segregation is persistent, careful studies on the composition of the groups that are likely to be active and supportive may first have to be carried out.

9. It may be useful to involve local residents in small community groups to promote personal hygiene and sanitation. However, such groups must be confined to small areas inside pockets, and a number of groups must be developed to look after each ward.

10. Respondents expressed fascination with learning through video films or participating in discussions. A video show followed by a group discussion led by a community worker may be a good educational method. Further, seeing their own community on the screen as an example of an embarrassingly filthy area that needs immediate improvement in health and sanitation could be a good approach to help people understand the issues better and lead them to action.

SECTION 6. SOLID WASTE MANAGEMENT

A prime component of environmental sanitation is the solid waste disposal system. Assessments of infrastructure services in 32 municipalities undertaken by the Management Support for Town Panchayats Project and the Ministry of Housing and Physical Planning (MHPP) document inadequacies in this sector:

> The low percentage of the population served in solid waste collection (an estimated 18% of solid waste is collected by volume) reflects the inadequate facilities mobilised for this purpose within the towns. Those outside of the Kathmandu Valley still rely upon traditional hand sweeping methods to clean the streets, utilising little equipment and ad hoc disposal arrangements. Outside the Kathmandu Valley, less than one-fourth of the

10 Op. cit. "The Promotion of Hygiene and Sanitation", Children and Women of Nepal, p. 151.

11 Ibid.

solid waste generated is collected. Because of the inadequate collection of refuse in most towns, roadside drainage channels are clogged and inoperative in urban areas.[12]

These findings basically parallel the results of the present study which describe the waste disposal situation in the urban poor sections of Biratnagar. When asked to report separately the places of disposal for both household and other wastes, responses were similar: outside the house, in particular just outside the door, or the back and front yards. Since there were no fixed places to throw solid waste, residents also just threw it anywhere along the roadside. This practice is so prevalent that it seems quite difficult to alter. The situation in Rani/Mills is the worst, followed by Sarochia.

About one-third of respondents perceived no problem with waste disposal, but over one-half complained about the lack of a proper place for this purpose. About 13% said that other residents objected to installing a waste disposal system near their residence.

Respondents were asked to report the state of cleanliness of their surroundings as they perceived it (which was also assessed by the interviewers through observation). About 74% of respondents reported that their surroundings were not clean, while the interviewers felt that 91% of the respondents' households were in this condition. Many (43%) of the respondents felt that maintaining the cleanliness of their surroundings should be their own responsibility, while 15% felt that it was the government's.

No one cleaned waste from respondents' surroundings in about 65% of cases, while 35% percent reported that their area was being cleaned by a municipal tractor; of these, 63% said that cleaning was done regularly.

Nearly all reported that they had animals in their households. More than one-half of animal owners prepared dung cakes for cooking (especially common in Rani area of ward number 21), while somewhat fewer used manure to fertilise their fields.

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12 Op. Cit., MSUD Study

Suggested Strategies - Solid Waste Management

1. Installing skip containers could solve the garbage disposal problem, particularly in Rani and Sarochia, although other areas are similarly in dire need. The municipality should ensure that garbage is collected regularly and disposed of in safe places, as is being done presently in other areas of the town.

2. Sweepers could be assisted by using their services to maintain a garbage disposal system, possibly developing a re-cycling system for plastics, bottles and other non-biodegradable materials. Technical assistance may be needed for this endeavour. The biodegradable waste can be composted and then sold. This work could be among the income-generating activities that can be initiated.

3. Health education is crucial, and should include proper garbage disposal and maintenance of the cleanliness of the surroundings.

SECTION 7. HEALTH

Disease Occurrence

Interviewers gathered information about the overall health situation in the study area. About 14% of the respondents overall stated that someone in their household had fallen ill in the past month. Fever, diarrhoea and stomach-ache were reported as the most frequent illnesses (Figure 14 and Annex 3, Table 13). Fewer respondents from Ghogapul reported family illness than from other pockets.

Places/Persons Sought for Treatment

Most of the respondents sought treatment from a doctor for their illness, but others went to see the pharmacists (3%), traditional healers (3%), other types of health workers (2%) or ayurvedic doctors (1%). Hospitals (57%) and ayurvedic clinics (28%) were the most common places for treatment, while others went to the homes of traditional healers or medical stores. When asked the reason for visiting these places, a majority (62%) said "because others go there". Free service and proximity were other reasons (Table 8). Staff behaviour was as important factor as cost of treatment for residents of Sarochia and Rani/Mills. Medical stores and pharmacies continue to be an important source of information about illness and the medicines required to treat these illnesses, a finding also noted in the Lalitpur UBS Baseline Study.

REPORTED DIARRHOEA TREATMENT METHODS FOR ALL AGES BIRATNAGAR UBS BASELINES SURVEY, 1990

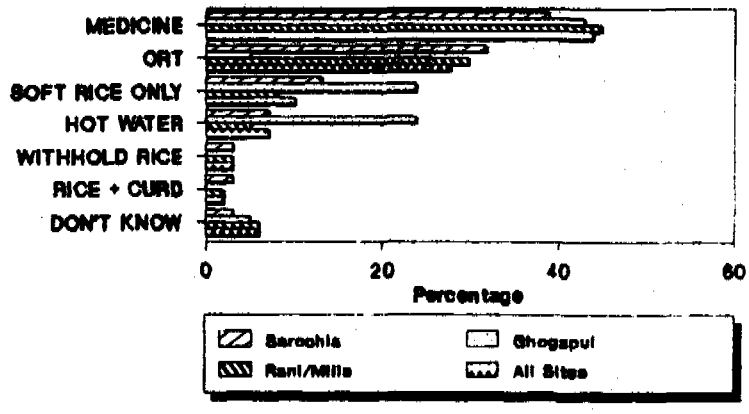


Figure 14

Table 8: Reasons for Choice of Place of Treatment, by Pocket (in %)

Reasons cited	Sarochia %	Ghogapul %	Rani/Mills %	All Sites %
Others go there	77	76	57	62
Free service/low cost	13	14	22	20
Nearness	0	0	17	13
Staff behaviour	10	10	4	5
Total (No. & %)	31 100	21 100	159 100	211 100

Diarrhoea and Other Diseases

According to a recent National Diarrhoeal Diseases Survey, children under the age of five suffer an average of six diarrhoea attacks per year. In 1985, there were an estimated 17 million diarrhoea cases in children in this age group in Nepal.

As diarrhoea continues to be one of the most serious threats to children's health, especially in combination with poor nutrition, women respondents were asked the measures they took to treat it.

Medicine was reported to be the most common way of dealing with diarrhoea for persons of all ages (Figure 15 and Annex 3, Table 14). Knowledge of oral rehydration therapy (ORT) was very low in Ghogapul, where only 5% said they would use it. The understanding of the use of ORT for prevention of dehydration was relatively low among all respondents.

Respondents were also asked what they do to treat diarrhoea cases specifically for the children in their family. About 45% reported that they used Jeevan Jal (packaged oral rehydration salts), 13% used *nun-chini-paani* (a home-made oral rehydration solution), while 24% said they used medicine (Figure 16 and Annex 3, Table 15). In Ghogapul, a total of 62% of respondents said they used one or the other types of oral rehydration solutions to treat their children. However, only 10% of all respondents were able to correctly prepare a home-made rehydration solution by properly mixing salt, sugar and water, judged from the finger measures they demonstrated during the interviews. Interviewers did not test whether they could prepare Jeevan Jal or other pre-packaged solutions.

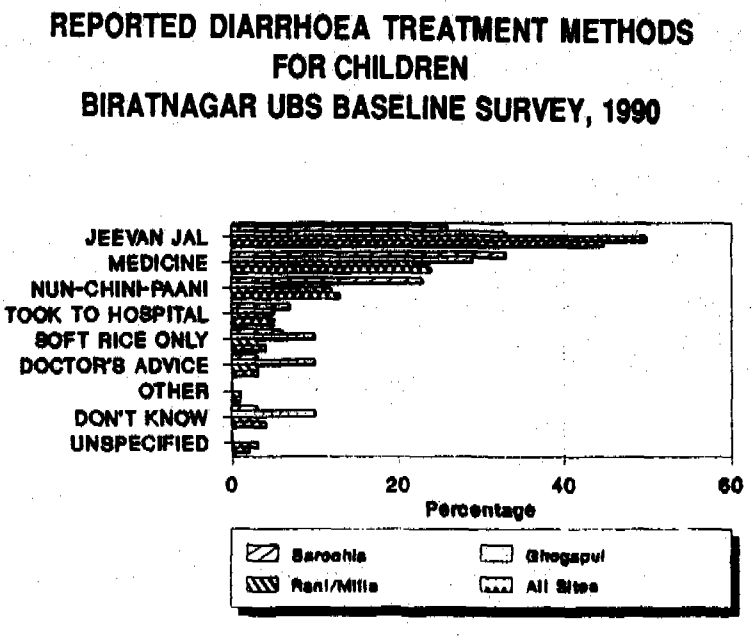


Figure 15

Respondents were asked from what source they had heard about ORT. Radio (55%), a doctor (52%), and friends and relatives (4%) were the most frequent responses of those who knew about it, while 21% had not heard about ORT.

Causes of diarrhoea as perceived by the respondents included eating stale and dirty food, but 27% said they did not know the exact cause (Table 9).

OCCURRENCE OF ILLNESS & SYMPTOMS
IN PREVIOUS MONTH (%)
BIRATNAGAR UBS BASELINE SURVEY, 1990

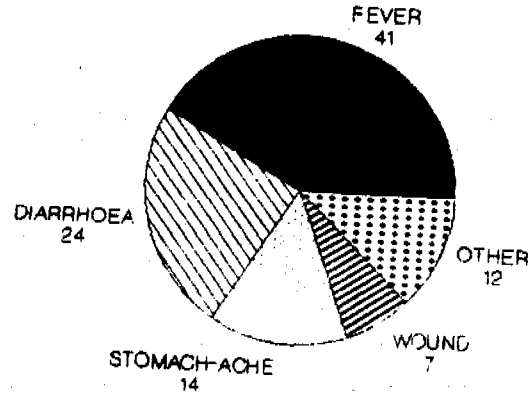


Figure 16

Table 9: Perceived Causes of Diarrhoea, by Pocket

Reasons	Sarochia		Ghogapul		Rani/Mills		All Sites	
	No.	%	No.	%	No.	%	No.	%
Stale and dirty food	17	55	8	38	56	35	81	38
Heavy diet	4	13	6	28	36	22	46	22
Cold weather	0	-	1	5	8	5	9	4
Hot weather	1	3	0	-	4	3	5	2
Dirty surroundings	0	-	1	5	4	3	5	2
Untimely food	0	-	1	5	3	2	4	2
Not known	9	29	4	29	43	27	56	27
Not specified	0	-	0	-	5	3	5	2
Total (No. & %)	31	100	21	100	159	100	211	100

The incidence of diarrhoea in Nepal increases markedly during the pre-monsoon and monsoon period, which is also generally the time of food shortages, increased labour demands on the family (making it more difficult to tend to a sick child properly) and low cash reserves.[13] Participants in the focus

[13] Op. cit., "Diarrhoeal Diseases and Helminthic Infections", *Children and Women of Nepal*, p. 78.

group discussions confirmed that during the monsoon the outbreak of diseases is high, especially among children.

For other diseases that afflict both children and adults, such as respiratory problems, fever and tuberculosis, almost all respondents used some kind of medicine for treatment. Some respondents used a home remedy for measles: they keep the children in a separate room where the mother does the *puja* (prayer) and sings a song during the evening. It is believed that measles will be cured in this way in three days.

Disabilities

Respondents reported 20 disabled persons within their households (Table 10), eight of them below 15 years of age. Five of those with disabilities had been treated at a hospital while the rest had done nothing. Two people have been disabled since birth, and 10 have never been taken for treatment. Three respondents reported that their problem could not be cured.

Table 10: Causes of Disability, by Age Group

Cause	0 - 14 yrs.	15+ years	All Ages
Burns	3	6	9
Deafness	3	2	5
Dumbness	1	2	3
Blindness	1	1	2
Skin disease	0	1	1
Total	8	12	20

Deaths and Births

There were a total of 16 deaths reported from the three pockets in the past year, most of them in older people (Table 11). Only one-half of the deaths were registered.

Table 11: Deaths in the Previous Year and Causes, by Age Group

Age group	No.	Rate*	Causes
< 1 year	2	44	Fever, "hunger"
1 - 4 years	2	18	Cholera, stomach disease
5 - 14 years	3	9	Fever, wound, "witchcraft"
15 - 44 years	1	2	"Sudden death"
45 years and over	8	51	Stomach disease, asthma, tuberculosis, pneumonia (2), fever, old age, unknown

*deaths/1,000 in age group in sample.

About 5% of respondents said that there was a pregnant woman in their family, and 17% reported a birth during the past year.

Immunisation

Female respondents reported that 75% of their household members had been immunised at some point in their lives, but only 22% of the 0 - 4 years age group had received an immunisation. Many people (23%) did not know what kind of shot they had been given. Of those who were vaccinated, 77% reported that they were vaccinated at the hospital, while 17% were vaccinated at home, 2% at family planning/maternal-child health clinics and 3% did not remember.

The main reason for children not being vaccinated was that mothers did not know that they should be (51%).

Suggested Strategies - Health

1. Respondents, especially women, had limited exposure to health-related issues and were not aware of or could not *mix properly nun-chini-paani*, and did not understand the relation between immunisation and disease. Hence, awareness campaigns on health issues should be implemented to increase the communities' consciousness and knowledge of health issues. Awareness efforts should be focused especially during the pre-monsoon and monsoon diarrhoea season. **Facts for Life** may serve as a good basis for campaigns. It should be kept in mind that most communication support for development in Nepal has produced attempts to deliver a service, product, or concept, by simply instructing people to respond because they are told to, rather than by communicating the reasons why and creating an awareness.[14] This situation was illustrated by mothers in the focus group discussions who had had their children immunised but did not understand why.

14 Ibid. "Communications for Child Survival", pp. 102-103.

2. Many development workers involved in communications seem to misunderstand the limitations of any single medium or any single encounter with parents. In creating expanded awareness and attempting to modify practices in these situations, change is more often created through a process of continual stimulation, as is evident through the kinds of behavioural changes that are already occurring. Short-lived campaign approaches are not well-suited to encouraging behavioural change. The promotion of health issues, such as the improvement of child care, requires sustained interaction at the community level. Hence, while mass media packages, such as the use of audio-visual presentations, could be effective in creating awareness and interest, the messages must be reinforced through interactions with health and social workers and other development agents in the area, including TBAs. In the end, apart from general administrative reforms, improved health service delivery will require sustained funding, the development of supervision and management systems at the project level, a significant increase in the hiring of female health workers and the introduction of systematic project on-site residency and in-service training for health workers.

3. Any health information campaign, particularly in the Rani/Mills area, should address the problem of alcoholism and smoking which was found to be increasing even among children and women in the area.

4. Communication should not be viewed as a distinct self-actualising factor that can by itself make a development programme such as the UBS effective, but as part of a larger system of multiple interacting factors (such as physical input, economic, organisational and socio-psycho-cultural factors).

5. More information and awareness of immunisation should take place in the community. Aspects apparently over-looked have been information on side effects, and the promotion of immunisation among fathers who, particularly among Muslims, ultimately decide whether a child should be immunised.

6. Given the number of community members who seek treatment at medical stores and pharmacies, it may be worth considering orientation for the people who run them. Though they may continue to have primarily an economic motive for their prescribing practices, some may respond to increased knowledge on appropriate treatment and danger signs that need medical attention.

7. A review of the present government position on urban community health volunteers may be appropriate.

8. Disabled children are in especially difficult circumstances, and there appeared to be much fatalism associated with respondents' attitudes toward the incurability of disabilities. Special attention should be given to disabled children to assess their situation and see if assistance to improve their condition and/or to enable them to participate more fully in society, such as attending school, could be provided.

SECTION 8. COMMUNITY PROBLEMS AND PRIORITIES

Male and female respondents were asked separately what they consider to be the major problems in the community and what programmes they would like to see implemented to meet them. Toilets were ranked as the number one problem by both males and females (Tables 12 and 13). Surprisingly, males ranked sanitation, cleanliness and drains higher than females; women gave health more importance. Children's education was ranked higher than adult education, but neither was a top priority. Both men and women mentioned economic-related problems (income, unemployment, skills development). A large number of males said they did not know what the major problems were.

Table 12: Major Problems of the Community as Expressed by Female Respondents, by Pocket*

Problem	Sarochia	%	Ghogapul	%	Rani/Mills	%	All Areas	%
Toilets		71		24		74		69
Health		61		29		52		52
Water		32		19		51		46
Income		26		10		31		28
Skills development/ training		23		19		29		27
Health facilities		10		24		16		16
Education		16		10		15		15
Day care centre		13		29		7		11
Housing		6		10		11		10
Adult education		10		19		3		6
Land ownership		10		5		4		5
Civic sense**		0		19		2		3
Others		0		0		6		5
Total (No.)	31	-	21	-	159	-	211	-

* % of respondents, multiple answers accepted; ** refers primarily to heavy drinking among the males in the community and their misbehaviour when drunk.

Table 13: Major Problems of the Community as Expressed by Male Respondents, by Pocket*

Problem	Sarochia	%	Ghogapul	%	Rani/Mills	%	All Areas	%
Toilets		65		81		85		87
Sanitation/ cleanliness		42		71		65		63
Drainage		29		57		69		62
Water supply		42		62		41		43
Health		46		24		31		32
Unemployment		7		38		34		31
Electricity		55		24		24		29
Education		42		33		19		24
Skills development/ training		29		24		23		24
Land		26		29		16		19
Adult education		19		5		14		14
Awareness		19		5		12		12
Housing management		10		10		7		8
Inflation		19		0		0		3
Day care centre		0		0		3		2
Road		3		0		1		1
Other** & don't know		13		10		28		24
Total (No. replying)	31	-	21	-	160	-	212	-

* % of respondents does not tally to 100% because multiple answers were accepted; ** including family planning and citizenship.

When asked what programmes they would like to see implemented in their communities, the replies mainly coincided with expressed problems. Thus, construction of toilets scored highest among female respondents, followed by skills development activities (Table 14). Male respondents cited sanitation/ cleanliness programmes the most, followed by water supply, drainage and solution of land ownership problems (Table 15). Education was seen to be less pressing.

Table 14: Priority Development Programmes According to Female Respondents, by Pocket (in %*)

Priority Programme	Sarochia	%	Ghogapul	%	Rani/Mills	%	All Areas	%
Toilets		42		33		52		49
Skills development activities		35		29		44		41
Health & sanitation		19		19		38		34
Income-generating activities		32		33		32		32
Water supply		19		19		34		30
Land & house ownership		6		10		6		7
Sewerage		3		10		6		6
Electricity		3		0		7		6
Employment		13		5		4		6
Education		0		10		4		4
Better roads		3		5		3		3
Healthy surroundings		0		0		3		2
Other		3		5		1		1
Total (No.)	31	-	21	-	159	-	211	-

*Does not tally to 100% bexause multiple answers were accepted.

Table 15: Priority Development Programmes According to Male Respondents (in %*)

Priority Programme	Sarochia	%	Ghogapul	%	Rani/Mills	%	All Areas	%
Sanitation/cleanliness		13		19		75		60
Water supply		6		24		32		27
Drainage		6		48		25		25
Solution of land problem		6		10		25		21
Skills development activities		23		14		20		20
Electricity		13		29		16		17
Road construction		0		33		9		10
Health programme		3		5		11		9
Education		6		0		9		8
Income-generating activities		3		0		9		7
Social club		0		0		3		2
Anti drug/alcohol campaign		3		0		1		1
Loan facility		6		0		0		1
Other** & don't know		0		5		2		2
Total (No.)	31	-	21	-	160	-	212	-

* Does not tally to 100% bexause multiple answers were accepted; ** including family planning and citizenship.

Only 36 women could name a female community leader in their area. In Ghogapul, respondents did not know a single leader. Only three leaders were mentioned by more than one person, which may make organising women in these communities to help resolve problems difficult.

Understanding of perceived needs at the outset of microplanning for any development programme must be guided by constant feedback received through community organisers. The problems and programmes that are perceived as needed strongly by the areas surveyed must be carefully analysed according to the level of perception of the people, their understanding of the measures that would truly improve their living standards and their commitment to improve their own lives.

CHAPTER III

CHILDBIRTH SURVEY

As part of the baseline survey, researchers carried out separate interviews with pregnant women and women who had given birth in the past year from the sample households, and also with practicing TBAs from the area.

OBJECTIVES

The objectives of this part of the study included:

1. to find out more about pregnancy and childbirth practices in this population, including how and why women select different sources and services;

2. to determine the role of TBAs and others in delivery and child health services;

3. to determine perceptions and practices on family planning among mothers in the study area.

METHODOLOGY

Five pregnant women out of approximately 27, and 20 women who had given birth in the past year out of approximately 36 in the sample households, as well as three TBAs, were interviewed using separate questionnaires for each of the groups. The other pregnant and postpartum women could not be located or refused to be interviewed. Focus group discussions with the same participants were also held.

INTERVIEWS WITH PREGNANT WOMEN

Patterns of Antenatal Care

Antenal care among study participants was found to be almost non-existent. Out of the five pregnant women interviewed, only two had gone to see a doctor, basically prompted by bleeding. None of them have received tetanus toxoid injection. The women said they did not go for antenatal care because there is no need; they believed they would have their deliveries in their homes without much problem.

Four pregnant women identified their pregnancy with the cessation of their menstrual periods, while the other's mother-in-law noticed her stomach getting big. All of the women interviewed were planning to call the local *sudeni* (TBA), whom they know very well, for delivery assistance. Most of them said that *sudenis* massage them with hot oil during pregnancy.

Four of the five cited problems during their current pregnancy: bleeding (2), baby stops moving (1) and swelling of legs (1). Women with the first two problems sought the help of a doctor and reported taking vitamins afterwards. One cited laziness as the cause of these conditions, another said they were normal during pregnancy, and three didn't know why they occurred.

On the measures to be followed during pregnancy to ensure the birth of a healthy baby, two said that nothing special has to be done, one said it is good to eat fruits and meat, another said a women should eat more food and one did not know. One woman thought pregnant women should avoid ginger to prevent a baby going blind. Three felt that heavy work should be avoided during pregnancy, as either the baby would die after birth (1) or the woman would have a difficult delivery (2).

INTERVIEWS WITH POSTPARTUM WOMEN

Profile of Interviewed Women

Twelve of the 20 postpartum women interviewed were Hindus of the Brahmin and Baishya castes, and the remainder were Muslims. The average age at marriage was 15 for Hindus and 14.6 for Muslims. Eight of the Hindu mothers and six of the Muslims were illiterate. All but two women did not work outside the home. The average age of the respondents at the time of the interview was 24, with a range from 16 to 40 years. The women had given birth between one and eight times, and had between one and seven living children. The average age at first pregnancy was 16.9 years, 16.3 years among the Hindus and 17.6 years for Muslims.

Pregnancies

The 20 women interviewed had had a life-time total of 71 pregnancies, of which 4 (6%) resulted in miscarriages. Of the 67 full-term pregnancies, nine were reported to be stillbirths (Table 16). However, a tendency exists to report as stillborn those children who were born alive but died within the first hours or days after birth. Muslim women reported a much higher proportion of stillbirths than Hindus.

Table 16: Births, Stillbirths and Miscarriages among Postpartum Women, by Parity

Number of Pregnancies									
	Hindu			Muslim			All Women		
Parity of Woman	Live Births	Still-births	Miscar-riages	Live Births	Still-Births	Miscar-riages	Live Births	Still births	Miscar-riages
1	2	0	0	3	0	0	5	0	0
2	4	0	0	0	0	0	4	0	0
3	15	0	1	0	0	0	15	0	0
4	0	0	0	5	3	0	5	3	0
5	10	0	0	4	1	1	14	1	1
6	4	2	1	4	2	1	8	4	2
8	0	0	0	7	1	0	7	1	0
Total	35	2	2	23	7	2	58	9	4

The mean number of pregnancies was 3.6, and nine women had been pregnant four or more times. One-quarter of the births occurred within two years of a previous one.

Birth Attendants and Place of Delivery

Of the 67 deliveries reported, 55 (82%) were assisted by untrained TBAs while only 5 percent were assisted by trained TBAs (Table 17). Four women were also attended by mothers-in-law. Five Hindu women had babies at a hospital, but most (93%) delivered at home.

Table 17: Frequency of Assistance from Different Persons during Delivery

	Within Homes/Living Area				
Religion	Untrained Sudenis	Trained Sudenis	Mothers in-law	Hospital staff	Total
Hindu	27	1	-	5	39
Muslim	28	2	4	-	28
Total (No.)	55	3	4	5	67
Percentage	82	5	6	7	100

Assistance During Most Recent Delivery

During their most recent delivery, respondents said *sudenis* (11), female neighbours (4), *dhais* (elderly women that function as assistants and/or nannies) (2) and hospital staff (2) assisted them the most (one woman did not reply). The two women who named *dhais* were Muslims.

Delivery Problems

Forty-two births occurred without any problem. Only one baby had an abnormal presentation. In 22 cases, a mother had prolonged labour, and there was one case of inverted uterus.

Of the seven mothers with problems during their most recent delivery, three Hindu mothers were treated by hospital staff, two Muslim mothers were helped by massaging with hot oil, while the other two did nothing about their problem.

Care of the Umbilical Cord

The umbilical cords of all babies were cut immediately after delivery. Twenty-eight cords (14 from each group) were cut with boiled blades and 37 with unboiled blades (21 Hindus and 16 Muslims). (Two mothers did not know whether the blade was boiled.) Fifty-three cords were left to dry, but 14 respondents did not know what the cord was covered with.

Breastfeeding

With their most recent babies, 11 mothers (seven Hindus and four Muslims) started to breastfeed immediately after delivery, while four mothers breastfed within two to 24 hours after birth. The other five mothers started breastfeeding only seven days later, and reported that they gave their babies goat's milk. Another had her mother-in-law breastfeed her baby and also gave him herbs.

Eight of the total 58 babies who were born live to this group of mothers were never breastfed, but most babies were reported to be breastfed for three years or more (Table 18).

Table 18: Length of Breastfeeding (Live Births), by Mother's Religion

Time	Hindu No.	Muslim %	Total No.	%	No.	%
Never	2	6	6	26	8	14
< 6 months	-	0	1	4	1	2
6 - 11 months	2	6	3	13	5	9
12 - 23 months	6	17	4	17	10	17
24 - 35 months	1	3	2	9	3	5
=> 36 months	24	69	7	30	31	53
Total	35	101	23	99	58	101

Postpartum Problems

Fifteen mothers reported no health problems for themselves or their babies during the first six weeks after delivery. However, one of the mothers had eye problems, and four said their babies had fever. All of those with problems sought treatment at the hospital.

Immunisation

Only twelve of the mothers had immunised their children at least once. Three Hindu and two Muslim mothers said that they had had their babies immunised to make their babies and themselves more healthy, while three others said that immunization prevented their babies from becoming sick. Twelve of the respondents said that they did not know anything about immunisation.

Five women said they did not have their babies immunised because they did not know anything about it, one Hindu mother said she was afraid, while another said her husband did not permit her to have it done.

Knowledge About TBAs

Over three-quarters of the mothers interviewed said that TBAs were within easy reach in their area when needed. Three TBAs serve in the study area. At the same time, 14 respondents did not know where to find a trained TBA.

Regarding the function of TBAs, seven mothers said that TBAs provide childbirth delivery service within their families and are not supposed to be

compensated for such work. Another 35% said that TBAs are needed only to cut cords. Others said TBAs deliver few babies a year and are compensated by the respective families, another said TBAs are those with special delivery skills and another mentioned that they are the ones who deliver babies as a profession.

Almost all the mothers said that they would contact a TBA for delivery in the future; only one said that she would approach the hospital. The focus group discussions revealed that the hospital provides poor quality services and gives less attention to poor people. The most easily contacted TBA was untrained, although some respondents did not know whether the TBAs had been trained or not, and most did not see any difference in their performance. However, four mothers said that the trained TBA is much cleaner and knows how to handle things better.

Two-thirds of the respondents said that they pay the *sudenis* and *dhais* in both cash and kind. The cash paid ranged from Rs.100/ to Rs.200/, in addition to some rice and other items. Where only cash was paid the amount usually goes up to Rs.400/.

INTERVIEWS WITH TBAs

Trained TBA

Of the three TBAs in the study area contacted, two were untrained. The trained TBA has been working for the last 15 years. She said she was trained nine years ago by a "sister" (probably a nurse, a midwife or another medical practitioner) for 16 days at Birta health post. Her constant company with her own mother during her childbirths exposed this TBA to the process and taught her the necessary skills. She said that before her training she used to assist an average of 4 - 5 deliveries per week, and this frequency has not changed much since her training. She serves all the women who call on her in five wards, including some outside of her community.

The TBAs services include massaging pregnant women with hot oil, changing the fetal position, performing *pujas*, giving medicines, performing abortions and preventing miscarriages.

She said she confirms a pregnancy when menstruation stops. She advises pregnant women not to take vitamin supplements, as "it would make their delivery difficult", but does tell them to eat green vegetables as "it is good for the baby" and to do exercises "for easier delivery". She said that pregnant women should visit a *sudeni* three or four times during their pregnancy.

She said a danger sign of pregnancy is when the baby moves, but she did not explain the cause. She generally treats such cases with massage or refers the woman to a hospital. A danger sign during delivery was twins, which she said is apparent by the size of the abdomen. She said she did not know the cause of twins.

Generally, she is called at the beginning of the mother's labour and during heavy labour pains, either by the husband or the woman's mother-in-law.

She cuts the umbilical cord with a boiled blade, immediately after birth, putting no covering on the cord after cutting and leaving it to dry. She removes the placenta by putting the cord in her hand and pulling it out.

For babies who got sick after delivery, which she said is caused by the baby "being unhealthy", she puts the baby in hot water and performs *puja* so that the baby recovers. She attributed both the death of the newborn and the mother to supernatural causes.

The TBA generally stays with a mother for two to three hours after delivery, washes the baby and massages the mother with oil. She thinks that a newborn should be given breastmilk 12 - 24 hours after birth, along with glucose water. The TBA said that a husband can assist after delivery by "doing everything for the baby."

She does not have standard fees for her services, and accepts whatever patients give. She sometimes sends her patients to the health post or hospital for check-ups during pregnancy.

She feels that her work has changed since her training, particularly because she washes her hands now, and she feels that she has gained more respect from the community. She has had no problems yet in carrying out what she learned from the training, though she admitted that she only understood some of it. She would not want any further training, nor would she want more supervision or help, as she said she "can do everything". She has a kit and uses it. She has not trained any other *sudeni* yet.

Untrained TBA

Of the two untrained *sudenis*, only one sat for interview. This *sudeni* has been working for the last 12 years. She said she learned her skills from her mother-in-law who is also a TBA and whom she used to accompany. During the last week, she said she had attended three to five deliveries, and during the past month, one or two more. She generally does not serve outside her ward, and only helps certain people within it.

She diagnoses pregnancy both by the cessation of menstruation and vomiting and by the fetal heartbeat. She cited no forbidden foods nor activities for pregnant women, although she acknowledged that there are special foods a pregnant mother should take "for easier delivery". She massages pregnant women with oil and performs *pujas*.

She cited bleeding as a danger sign of pregnancy. She did not know its cause, but treats it with massage. She generally refers such cases to hospital. She feels that it is not necessary for a *sudeni* to visit a pregnant woman. She is generally called during heavy labour, usually by a woman's husband. Of particular people assisting during delivery, she cited the mother-in-law who "does everything", although the TBA herself cuts the cord with a boiled blade as soon as the baby comes out. She removes the placenta by pulling it out immediately after birth and disposes of it in a plastic bag.

She could not identify any danger signs during delivery or for the newborn. She attributes babies' deaths to supernatural causes, and mothers' deaths to bleeding.

She generally stays with a mother for five hours, washes the baby and massages the mother with oil. She said a newborn should be given breastmilk within one or two hours after birth, along with glucose water.

Her charges are Rs.50/ in cash, a *sari* set and five kilos of grain. She said she never refers her patients to the health post or hospital, as she herself looks after them.

She did not want any training, and said she did not know of any trained *sudeni*. She feels that there is no difference between her services and a trained one, and that trained and untrained *sudenis* do not help each other.

Family Planning

Only one of the postpartum women was practising family planning. She had had surgical contraception. All except one of the respondents said that the decision to practice family planning rested entirely with their husbands; the other respondent said that it was her sole decision. Fifty-five percent of the women want to have more children, either to take care of them in the future (2), to have a son (1), because children are God's gifts (1), or because they are already expecting another child (7).

Seven women had heard about pills, six about sterilisation, four about depo-provera, and one condom. Two said they did not know any method. Twelve said they had heard about a method from the radio, eight heard it from friends,

five from members of the family and two from health workers (more than one answer was accepted).

Three-quarters of the respondents said that a gap of less than 24 months between two children would affect their breastmilk flow, while the rest said that the older children in the families would get sick. All those who said that there was no reason for family spacing were Muslims.

The interval before resuming sexual relations after giving birth was reported to be less than five weeks in most cases (17 respondents). Twelve respondents did not know whether there should be an interval. Others said that a gap was necessary for health reasons (2), while others were told to abstain for a time by a nurse, her husband, a friend or her mother.

Suggested Strategies - Childbirth

1. As TBAs continue to play important roles in maternal and child care in the study areas, more emphasis should be given to educating them better on proper childbirth and postpartum practices. While their practices were not all necessarily harmful and contrary to modern teaching, their knowledge was very weak in some areas, such as on the danger signs of pregnancy and childbirth. There appeared to be very little difference between the trained and untrained TBAs interviewed. As their advice is usually accepted by mothers, they can be a useful resource for health education, particularly on immunisation, treatment of diarrhoea in children and family planning. The Nursing Campus in the municipality may be the best institution to be involved in organising such orientation. The investigators made contact with the Campus Chief and the Instructor of Community Medicine during this survey. The campus has already begun field work in the surrounding community, and they seemed to have enthusiasm and willingness to contribute to health-related activities in this area.

2. Since mothers-in-law and *dhais* play significant roles in childbirth, orientation should also be given to them on proper practices, as well as other areas of health education. This orientation could be coordinated with the Nursing Campus, and perhaps included in the students' field work practice.

3. A need also exists to educate fertile-age women on the roles of TBAs as birth attendants and what practices to expect from them.

4. The UBS programme should strengthen the immunisation programme by including an educational approach beyond simply motivating mothers, so that they have a basic knowledge about the relationship between diseases and immunisations.

5. UBS must likewise focus on promoting earlier breastfeeding (within a few hours of birth) among mothers. While mothers said most of their children were breastfed for three years or more, some mothers never breastfed their babies, or started late.

6. The UBS programme can also work to strengthen the role of modern health care services provided by hospitals and health posts through the use of local social organisations, the Nursing Campus and the health workers. Again, the Nursing Campus may have the most potential for involvement in this area. Health workers will first need to be sensitised about some of the key maternal health issues, and the importance of their becoming involved in health promotion work in the community. Further, some form of coordinative efforts must be encouraged between the TBAs and the hospitals, particularly on referral cases.

7. Family planning should be aggressively promoted in the study areas through a variety of methods, including the education of TBAs.

8. Although not especially identified in this survey, very young brides (below 16 years) and their mothers-in-law may require special attention on maternal and child health issues.

CHAPTER IV

CONCLUSIONS AND RECOMMENDATIONS

From the results of the survey and focus groups, the urban poor of Biratnagar clearly live in a very precarious situation where almost all basic services are deficient, where tradition and lack of knowledge lead to underutilisation of the few available services, and where the residents currently have little experience in working collectively to resolve problems. In these circumstances, the children and women of the area have little hope of realising their full potential.

Detailed strategies relating to each sector discussed are contained in the body of the report. To summarise the most important directions for future assistance:

- UBS should try to remove the barriers to children's education in this community. To do so requires more information on what work out-of-school children do for their families and how essential it is; orientation for parents and students on why education is important, especially for girls; raising of income levels for parents and children through income-generating activities appropriate to both; changing of attitudes of teachers through increasing their involvement in the community and incentives for improved work; adaptation of government policy on fees, uniforms and other items so that even the poorest families can afford costs; and improving physical facilities.

- The environmental health situation needs improving through a combination of health education and awareness-raising; community organisation; and involvement of the municipality so that it fulfills its obligations to provide basic services.

- Some deficiencies in health services can be improved by educating the community in prevention and effective home treatments for common diseases to decrease their reliance on distant hospitals and the purchase of medicines; educating the public on realistic expectations of the health services; investigating the training of urban community health volunteers; and training more TBAs.

- Income-generating activities will help to improve almost every aspect of life for this poor population, but the activities must be selected and promoted taking into account a balance between the community's expressed ideas and practical solutions. Skills development training and adult literacy classes may have to serve as pre-requisites to some activities.

- Women need to be encouraged to take a greater part in community affairs and to increase their experience in decision-making. Male heads of households need orientation on why their wives and daughters should be educated, allowed to make decisions, and participate in community groups.

- Adult literacy classes for women should be promoted to increase their confidence.

- The needs of children in especially difficult circumstances, including working children, disabled, and child brides, should be given special consideration and in some cases direct support, to enable them to participate more fully in society.

- UBS should capitalise on the experience and expertise of other groups working in the target area, and should build on the experience of other projects or institutions with similar objectives, such as the Adarsha Nirman Mandir and the Nursing Campus.

POCKET-WISE ANALYSIS OF PROBLEMS AND RECOMMENDED SOLUTIONS

The major problems and solutions identified by pocket are described below:

Sarochia:

Water: Most of the residents in Sarochia use a tubewell. Although there is a drinking water pipe already installed, it is not yet in use. The respondents said that until they can buy water metres to install on the water taps, the concerned agency will not give them a private tap. This situation requires assistance from the agency concerned so that safe drinking water can be made available to the community. One alternative strategy for the UBS programme would be to install water taps for a few houses and have the users pay the charges collectively every month. To organise this scheme effectively, the initial users' group must be small (10 - 12 houses). At the beginning, community organisers could help to identify and orient the users' group, which could function on its own later.

The areas surrounding some public tubewells are in very poor condition, usually with stagnating water around them. This problem needs to be addressed in order to improve the water supply situation in the area.

Latrines: Lack of toilets is a serious problem. Most adults use the open field for defecation, and children use the roadside pavement. Some landowners have shown willingness to allow their premises to be used for the erection of latrines, if given assistance in the form of building materials. However, the maintenance and day-to-day operation of the latrines may become a problem. Therefore, a

strong users' group needs to be developed first. The experience of the water users' group, if successful, can be used as a basis for this work. The Biratnagar municipality has installed a public pay latrine near this area (on the other side of Biratnagar in Dharan road). If this project is already in operation, it may be worthwhile to use the lessons learned there to implement a similar scheme in Sarochia.

Health and Sanitation: A programme to strengthen the community's awareness on health and sanitation is needed. Drainage problems exist in the area which will not be easy to resolve at this stage unless the community improves its own environment. As an initial effort, the environment can be kept healthy by spraying insecticide in the dirtiest places. Community awareness campaigns and sanitation improvement groups could be organised for day-to-day cleanliness. Household members have to be oriented not to throw garbage on the roadside, not to spill water in the roadside canal, to clean the roadside canal in front of and nearby their own houses regularly, and so on. Since it would benefit them equally, the better-off families in the same area can be persuaded to become involved in this endeavour. Long-term drainage system development is a major capital investment project and certainly will require much greater assistance; the possibility of help from development agencies should be explored.

Education: The level of education has to be improved, as many parents do not send their children even to primary school. The Sickchhya Sadan Lower Secondary School in this area does not have even basic facilities. According to focus group discussions, the number of school-going children can be increased if the primary facilities are increased as well. The real problem, however, is that the parents do not consider it necessary to send children to school. The little income that they make from petty work in business and the agriculture sector (bringing grass/fodder for cattle in the western section of the community) is more attractive for children than classes. Motivational approaches to convince the parents to send their children, and especially their daughters, to school is essential. Incentives in the form of scholarship programmes, better behaviour from the teachers, involvement of parents in school management, and so on, can be encouraged.

Health: While there is one homeopathic medical shop in the area, there is no health post. There are three *Hakims* (medical practitioners using herbal medicine) who are popular in the Muslim community. These *Hakims* can be utilised by this project by suggesting to them that they give lessons to their patients on preventive health and sanitation. Further, a free medical clinic in the area would serve the needs of the community and could also be used as a venue for essential health education.

Solid Waste: The solid waste problem is great. A large container is needed to solve this problem. The residents have shown a willingness to use it if it is made available.

Ghogapul:

Water: Only eight houses in the area have private water taps, and these are not in good condition. Most of the residents use tubewells. There is a big well dug at Dhobihari which is used for washing clothes, for bathing and feeding animals, but not for drinking. At the time of the survey, the water was visually murky, but this problem can be solved to some extent by keeping the well clean and purifying the water with chemicals. A testing kit and instructions on how to use chlorine could be provided to the community. Two water taps are especially needed in Dhobihari and Darjeepati.

Latrines: Lack of latrines is a problem in Ghogapul. The residents suggested building a public toilet with about three rooms each for males and females, but a suitable location must be found.

Drainage: Darjeepatti is situated in low land, moreover the road slopes down. During the time of the survey, the road was found to be very muddy and filthy. The drainage pipe was filled with solid waste, excreta and dirty water. The drain from the *tole* could be joined with a seasonal canal between Darjeepatti and Dhobihari in order to keep the drain clean.

Health: Although Biratnagar Hospital is about 15 minutes' walk away, the community expressed a problem with the inaccessibility of medical facilities in the area, including facilities for immunisation and childbirth assistance. Awareness about maternal and child health and family planning is felt to be needed.

Income generation: To assist Darjeepatti community to raise its income level, residents said they would like to be provided with sewing machines (for tailors). The people of Dhobihari felt some assistance in their traditional occupation (laundry work) is required.

Education: Children in Ghogapul (mainly Muslims) generally go to the *Madarasa* where they receive an Islamic education. However, sending children to other schools may be necessary to encourage them to have continuity in educational achievement. Because of their low income, a majority of residents cannot send their children to school at all. Some assistance can be extended in the form of books and stationery to lessen the burden for parents.

Rani/Mills Area:

Latrines: Sanitation problems related to latrines are worst in ward 22, as the open space at the heart of the *tole* is used for defecation, creating a very unhealthy environment with a foul smell everywhere. Erecting communal latrines in this area is a prime concern, but little space exists. Equally important is the day-to-day

maintenance and operation of the communal latrines. Careful judgment is required before launching any latrine project here, and operation of the project has to be well-designed and implemented.

Water: The tubewell is not sufficient to meet the needs of the area. Three tubewells are felt to be needed in the *chowk* area.

Health: A health facility is very much needed in the area, as people either go to Biratnagar or to nearby Jogbani (India) for medical treatment, where they have to pay for medicine.

Education: While there is a lower secondary school up to Class 6 in the area, it is in very bad condition. As parents find the cost of sending their children to this school prohibitive, only a low percentage of children attend.

A small Muslim *Madarasa* in the area teaches basic Muslim education. The Muslim community, in particular, requested the assistance of one or two competent teachers to provide formal primary education to their children. Responding to this request may be a good strategy to convert the *Madarasa* (without changing its present role) into a formal educational centre.

Other: Specific social action programmes are needed in the Raghupati Mills area to address the problems of increasing alcoholism and prostitution along the Indian border.

Ward No. 19 - Mehatar Tole

Water: As the people in Mehatar Tole are regarded as "untouchables" they generally have problems in availing themselves of water from the public tap. Hence, they particularly requested three tubewells or communal water taps to meet their needs.

Latrines: Public land is available in this area which could be utilised for the construction of two communal toilets to resolve the problem of lack of toilets in the area. The present latrine is already so over-burdened that it no longer serves the needs of the community.

Solid waste: For waste disposal, small containers or drums could be provided in the area, but the municipality or a users' group will have to be responsible to see that the waste is then taken to a safe disposal spot.

Education: Respondents requested assistance such as books, stationery and school uniforms so that their children can attend school regularly.

Ward 21:

Water: A drinking water tank was installed a long time ago in the area, but only one communal tap, at Radhakrishna chowk in Ward 21, has been opened to the public since then. Five taps would be sufficient for the needs of residents of ward 19, Harinagar Bhatta, Mehatar tole, nearby Hadtali hat, Janbikas High School, the area across the Balbhadra Road and Kishan tole of ward 21.

Solid waste: As this is a rural area with lots of open space, a garbage disposal problem is not apparent, except for one or two places. About five garbage containers would be sufficient to meet the needs of the above areas.

Latrines: Lack of latrines is a major problem in this *tole*. While some houses had their own private pit latrines, these were generally in poor condition. The majority of residents with no latrines use the open space for defecation. No public land is available to build latrines. Biratnagar Jute Mills, where most of the residents work, could be approched to build public latrines for the community, while at the same time assistance could be given for private latrines for those who want them.

Health facilities: Even though a health clinic is provided by the Biratnagar Jute Mills, there is a great need for an additional health facility to serve wards 19, 21 and 22.

Health and Sanitation: A cleanliness campaign addressed particularly to mothers must be implemented to increase their consciousness of the relationship between sanitation and health. As they appear already desensitised to the filthiness of the environment, they do not seem to mind it any more. Therefore, a more intensive awareness campaign to modify their attitudes is of top priority. The use of audio-visual packages may have an impact; if possible, a film or video of the neighbourhood should be made, so that residents can participate and at the same time see the embarrassing lack of cleanliness in their area. However, in the case of ORT the use of mass media seemed to be a major source of awareness, but interpersonal reinforcement to bring about a change of attitudes and practices was lacking. Therefore, these audio-visual presentations must be accompanied by reinforcement of the message by health and social workers.

Since young children are a major source of contamination of the neighbourhood, a child-to-child programme involving older brothers and sisters in helping their younger siblings learn to use toilets or defecate in appropriate places may also be practical. School teachers may enjoy being involved in child-to-child, since teaching materials exist that can be used in the classroom (although they may need translating).

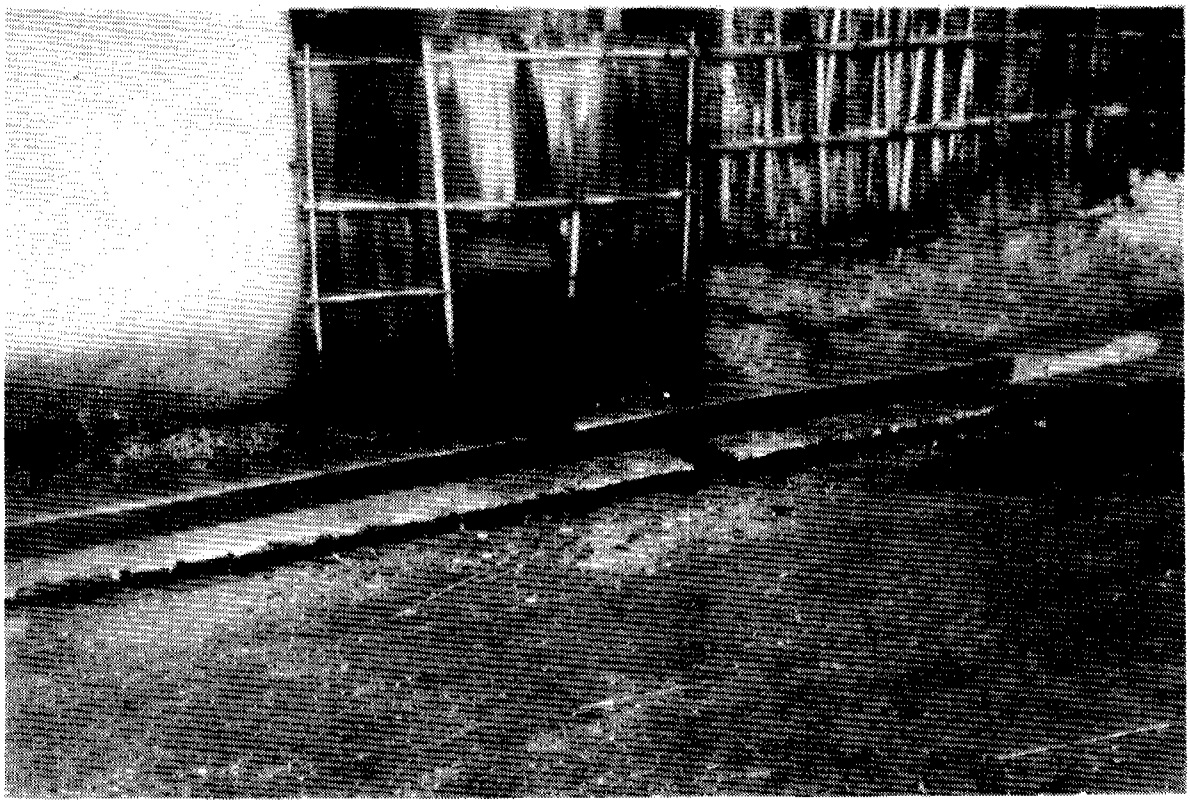
Education: Poverty is so pervasive in this area that residents cannot afford to send their children to school. Only one school (Vidya Vikas Primary School)

serves ward number 19 and also ward 21. This school is overcrowded and the facilities are very inadequate. They have further deteriorated because they have had to meet the demands of a large student population. Most parents are interested in sending their children to school, and hence this problem is one of the prime concerns of the area. Assistance to this school would be a good idea.

Income-generation: Since residents of the Mehatar area in ward number 19 are willing to continue their traditional role as sweepers, mobilising them for waste management could be a beneficial income-generating activity for them. Not only could they help clean their own community, but the one nearby as well.

Stagnated rain water that accumulated because of lack of drainage is seen in front of this primary School at ward no. 19.

A public well at Dhobihari, Ghogapul, the place is also the site for washing clothes and utensils, and for bathing.



The newly constructed drainage at Ward No. 22 where the waste from the pit latrine is also drained out.

Sweepers of the Biratnagar Municipality are collecting garbage that were dumped near the tubewell.

The most popular source of water in the study area is the tubewell but there is no provision for drainage and platform/elevation in many of these tubewells.

Poor drainage in front of the houses in Ghogapul.

Ward no. 7 (Sarochia) also suffers from lack of proper drainage system.

A makeshift 'canal' allows the tubewell's waste water to go down the drain which has no final outlet.

APPENDIX 1

URBAN BASIC SERVICES - Unicef, Nepal BASELINE SURVEY

Questionnaire for men **Q.No.**

.....

Ward No..... Tole ..... Group no.....

Date ..... Interviewers name ..... Time started ..... Finished .....

DEMOGRAPHIC AND SOCIO-ECONOMIC INFORMATION

1.1 Name of household head_____ Age _____

1.2 Ethnic group/caste_____

1.3 Religion _____

1.4 Name of person interviewed, if different and relationship to household head _____

1.5 Is this your ancestral home, if not, where did you come from? _____

1.6 Is there anyone who normally lives here who is not here now ? i.e. away for work. ☐

1. Yes 2. No

If yes, include details on the household composition sheet.

1.7 How many children do you have?

Male	Female	Total
☐	☐	☐

1.8 How many children would you ideally like?

Male	Female	Total
☐	☐	☐

(Only for household head)

1.9 How many brothers/sisters do you have ?

Brothers	Sisters	Total
☐	☐	☐

Group no:

Group No:

3. ECONOMIC

3.1 What is your main source of income?

		primary	secondary
1)	government job, specify		
2)	business, specify	☐	☐
3)	other waged job, specify		
4)	farming		
5)	irregular, specify (works less than 8 months p.a.)		
6)	not employed		
7)	other, specify		

3.2 How much did you earn last month?

.....

3.3.1 Is this about the same all year round ?

(1) Yes 2) No ☐

3.3.2. If answer to above is No, when does income increase:

1) Spring
2) Summer
3) Autumn
4) Winter ☐
5) Not certain

Group No:

3.3.3. If answer to 3.3.1 is No, when does income decrease:
Use same variables as in 3.3.2 ☐

3.4 Who decides what money is spent on (major items such as land, bicycles, large pujas etc)

.....

3.5 Who keeps money for day to day expenses (food etc.)

☐

3.6 Does anyone else in the household earn? Who?

.....

☐ ☐ ☐

Accept up to three answers if there is more than one wage earner.

3.7 On what four main items do you spend your money every month?

1) Food
2) Fuel
3) Transport
4) Rent
5) Electricity
6) Alcohol
7) Tobacco
8) Pujas
9) Education
10) Savings
11) Other services
12) Other, specify

☐ ☐ ☐ ☐

3.8.1 Do you owe anyone money (over Rs.500)

1) Yes 2) No ☐

3.8.2 If yes, who to:

1) family member
2) neighbour
3) friends
4) bank
5) money lender
6) other, specify

☐

Group No:

3.9 What did you borrow the money for?

.....

3.10 How much did you borrow ? Specify actual amount.

.....

3.11 How much interest are you paying? Specify actual rate.

.....

3.12 Does anyone in the household own:

if more than one item specify amount.

1) bicycle
2) motorbike
3) car
4) television
5) radio
6) jewellery (gold & silver)
7) other valuable items, specify

☐ ☐ ☐

3.13.1 Landholding pattern

1) Landless

2) Owner cultivation

3) Tenant cultivation

4) Sharecropping (adhiya 50/50 - landlord provides inputs)

5) Sharecropping (cut - tenant provides inputs) ☐

13.13.2 If the respondent is an owner cultivator, how much land do they own?

.....

3.13.3 If the respondent is an owner cultivator, do they rent out land?

1) Yes 2) No ☐

If yes, how much land is rented out? .....

Group No:

How much income do you get every year for this?.....

If you do not take money, do you take a % of the crop? How much?.....

3.13.4 If the respondent is a tenant cultivator:

How much land?.....

How much rent paid?.....

3.13.5. If the respondent is a sharecropper:-

% of produce given to landlord?.....

How much land do you farm?.....

3.13.6 For all respondents who farm. What are the main crops?

.....

Up to three answers in order of importance

3.14 Do you own any animals? How many ?

1) pigs	
2) chickens	
3) goats	
4) buffalo	
5) ducks	
6) cows	
7) other, specify	

3.15 Is this a rented home or your own ?

1) own 2) rented

If rented, is it secure, who is responsible for improvements - you or the landlord?

1) self 2) landlord

.....

Group No:

4. PHYSICAL INFRASTRUCTURE

Observation (4.1.-4.6)

4.1 Main material of house

1) fired brick
2) breeze block
3) natural materials (mud, bamboo, thatch etc) ☐
4) other, specify

4.2 Roofing

1) tile
2) thatch
3) corrugated iron ☐
4) other, specify

4.3 Any guttering or other drainage (for rainwater run off) ?

1) Yes 2) No ☐

4.4 Is there a sullage pipe for waste water (kitchen waste water etc). Where does it drain to ?

1) Yes - it drains to ..... 2) No ☐

4.5. No. of storeys

1) ground floor only
2) ground and 1st ☐
3) ground, 1st and 2nd
4) more, specify

4.6. Is there an electricity supply to the house?

(1) Yes (2) No ☐

Group No:

4.7 What fuel do you use for cooking?

1) wood
2) kerosene
3) electricity ☐
4) dung
5) agricultural by products
6) other, specify

4.8.1 If you have children of primary school age do they go to school ? To which school ?

1) Yes 2) No

	Children of school going age	School going children	School name
Primary			
Lower secondary			
Secondary			
Campus			

If yes, check whether all children or only boys.

4.8.2 If not, why not ? Expand and probe if necessary (cost, cost of books, uniform, ostracised etc).

Primary: .....
Lower secondary: .....
Secondary: .....

4.9.1 What health facilities are you aware of in this area - accept up to five replies

1) hospital
2) health post
3) private clinic
4) pharmacy ☐ ☐ ☐ ☐ ☐
5) vaidhyas (ayurvedic service)
6) traditional healers (dhami/jhankri)
7) compounder
8) other, specify

Group No:

4.9.2 Of these, where do you go if you or your family are seriously ill ?

Use same variables as in 4.9.1. Accept up to three answers in order of priority.

☐ ☐ ☐

4.9.3 If you do not use hospital services, why not?

.....

4.10 Does any person visit the area regularly to give services or are there any regular services?

1) yes - what sort ..... 2) No

4.11.1 Have you ever had any special training ?

1) Yes 2) No ☐

4.11.2 If yes, specify

.....

4.11.3 Would you or anyone in your family like training ?

1) Yes 2) No ☐

4.11.4 If yes, what sort ?

.....

4.11.5 For what purpose ?

.....

4.12.1 Are there any homeless children in this immediate area (living on the street) ?

1) Yes 2) No ☐

4.12.2 If yes, where did they come from ?

.....

.....

Group No:

4.12.3 Do they cause problems ?

.....

4.13 Are there any social organisations or programmes in this area ?

.....

can specify up to three answers in order.

4.14 Are there any social problems in this area (prompt) ?

1) drug addiction
2) drunkenness
3) unemployed youth
4) other, specify
5) none

.....

4.15 Have you, or anyone in your family, ever participated in any community activity ?

1) street cleaning
2) free labour for construction
3) guthi activities
4) other, specify
5) none

Accept up to three answers

SANITATION

5.1.1 Do you have your own toilet?

1) Yes 2) No

If no toilet go to 5.2.1.

5.1.2 Who built the latrine?

.....

Group No:

5.1.3 How was it financed? (subsidized or not?)

.....

5.1.4 What sort?

1) pour and flush
2) pit latrine
3) other, specify

5.1.5 Where is it located?

1) outside (specify, courtyard etc)
2) inside (specify, ground floor etc)
3) field
4) other, specify

5.1.6 Do you use it?

1) Yes 2) No

5.1.7 If not, why not?

.....

5.2.1 Where do you normally defecate (don't prompt)

.....

5.2.2 Where did you defecate yesterday ?

.....

5.2.3 What do you like or dislike about this place?

.....

.....

Group No:

5.2.4 What do you do after defecating (don't prompt)?

1) cleaned anus (how)
2) disposal of faeces (where) ☐ ☐ ☐
3) washed hands with water only
4) washed hands with soap and water
5) took a bath
6) other, specify

Accept up to three answers

Questions 5.3.1. to 5.5.2 are only for people who do not have their own latrine

5.3.1 If you do not have your own latrine would you use a communal latrine ?

1) Yes 2) No ☐

5.3.2 If yes, of what sort?

.....

5.3.3 How far would you go if there was a communal latrine?

.....

5.3.4 Who should keep it clean?

.....

5.3.5 If you would not use a communal latrine, why not?

.....

.....

5.4.1 If you do not have a private latrine, would you like one?

1) Yes 2) No ☐

5.4.2 If yes, do you know what sort?

1) pour and flush
2) pit latrine ☐
3) other specify

Group No:

5.4.3 If you do not have a latrine and do not want one, why not ?

1) cost
2) don't need one
3) no space
4) prefers current practice
5) other, specify

5.5.1 Whose responsibility is it to install it? Do not prompt.

1) self
2) landlord
3) town council
4) government agency (i.e. MHPP)
5) other, specify

.....

5.5.2 If you want a private toilet, would you be prepared to contribute money or materials, specify.

1) could give money, specify amount
2) can give free labour
3) can contribute materials, specify

Town ..... Ward No ..... Tole ..... House No .....

Interviewer .....

6. CONCLUDE

6.1 What are the main problems for your family or community? Open ended. Elaborate where possible.

Possibilities include -

1) education (child)
2) land ownership
3) solid waste disposal
4) water tap
5) water supply
6) health
7) income
8) toilet provision
9) day care centres
10) housing quality
11) adult education (literacy)
12) skills training (specify)
13) general awareness
14) unemployment
15) electricity
16) other, specify

Rate 1 - 5 (1 = top priority)

.....

.....

.....

.....

.....

6.2 Who are the three most influential men in your community?

.....

.....

.....

6.3 If there was a programme in this area what would you most like to see done? Would you like to get involved?

.....

.....

.....

Thank the respondent for their time and for an interesting interview.

Town ..... Ward No ..... Tole ..... House No .....

Interviewer .....

URBAN BASIC SERVICES - Unicef, Nepal **BASELINE SURVEY**

Questionnaire for women **Q.no.**

7.1 Name of interviewee.....

7.2 Age.....

7.3 Relationship to household head.....

7.4 1) Literate ☐
2) Illiterate

7.5 Age at marriage.....

7.6 Husband's age at marriage.....

7.7 Residence 1) husbands house
2) father's house ☐
3) other, specify

7.8 Husband 1) Literate ☐
2) Illiterate

7.9 Husband's education level.....

7.10 Husband's work.....

7.11 Own work.....

7.12 Ethnic group..... Caste.....

7.13 Total no. of children Male ☐ Female ☐

Town ..... Ward No ..... Tole ..... House No .....

Interviewer .....

7.14 Have any children died? If so, please give details.

Year	Age	Sex	Cause of death

7.15 Ideal family size (children only)

Boys ☐ Girls ☐ Total ☐

(only for household's head's wife)

7.16 How many brothers/sisters do you have ?

Brothers ☐ Sisters ☐

ECONOMIC - FOR WOMEN

8.1 Do you make any items for family use or for sale in the market

1) Yes 2) No

If yes, go to 8.2 If no, go to 8.4

8.2 What do you make

	For home use	For sale
1) Mats		
2) Baskets		
3) Rope		
4) Wooden products		
5) Pottery		
6) Woollen products		
7) Cotton, Silk (textiles)		
8) Jute		
9) Processed food (i.e. ghee, milk, curd, beer, raksi, specify)		
10. Other, specify		

Town ..... Ward No ..... Tole ..... House No .....

Interviewer .....

8.3 If you sell items, do you get to keep the money or do you turn some or all of it over to your husband or parents.

1) turn it all over
2) turn some of it over ☐
3) keep it all

8.4 Do you run a tea shop or any other service business (i.e. sewing)?

1) Yes 2) No ☐

If yes, specify .....

.....

8.5 Did you earn any outside income through wage labour during the last year

1) Yes 2) No ☐

If yes, go to 8.6. If no go to 8.7.

8.6 If yes, were you able to keep and spend the money or did you turn some or all of it over to your parents or husband?

1) turn it all over
2) turn some of it over
3) kept it all

8.7 Other than wage or selling items, do you have any personal source of income for which you get money to spend on yourself or your children without asking husband or parents (give examples - cash, jewellery, chicken given as pewa, income from land in own name).

1) Yes 2) No ☐

If yes, go to 8.8. If no, go to 8.9.

Town ..... Ward No ..... Tole ..... House No .....

Interviewer .....

8.8. If yes, what were the three main things you spent your own income on?

1) Food	7) Clothes			
2) Household items	8) Travel			
3) Gifts	9) Pujas	☐	☐	☐
4) Children	10) Education			
5) Animals	11) Health			
6) Savings	12) Land			

Other, specify .....

8.9 Would you be interested in earning more

1) Yes 2) No ☐

8.10 If yes, what would you like to do?

1) find a job
2) start small projects ☐

8.11 What has kept you from starting these activities?

.....

8.12 What sort of activity would you like to pursue? Open question .....

.....

.....

Town ..... Ward No ..... Tole..... House No .....

Interviewer .....

WATER, SANITATION AND HYGIENE

Water

9.1.1 Do you have a own water tap ?

1) Yes 2) No

9.1.2 If not, from where do you get water ?

1) communal tap
2) well
3) tubewell
4) other, specify

.....

9.1.3 Do you have problems with water supply ?

1) No 2) Yes, which time of year .....

9.2.1 What kinds of problems

1) not enough
2) bad quality, taste or appearance
3) wait too long, how long? ☐☐☐
4) none available at times
5) other, specify

9.2.2 How often do you collect water?

1) once a day
2) twice a day ☐
3) more often, specify
4) less often, specify

Town ..... Ward No ..... Tole..... House No .....

Interviewer .....

9.2.3 Please show me what you collect water in? Describe.

.....

9.3.1 How many of these do you need for one day?

.....

9.3.2 Do you think you can get ill from drinking water?

1) Yes 2) No ☐

9.3.3 If yes, what illness?

.....

9.3.4 How many litres of water do you require for different household activities ?

Activities	Litres
1) for family use	
2) for washing clothes	
3) for cooking	
4) for drinking	
5) for defication	
6) for cleaning	
7) for other activities	

9.4.1 Please show me what you store water in? Describe.

.....

9.4.2 Observe - is this container covered or closed?

1) Yes 2) No ☐

Town ..... Ward No ..... Tole ..... House No .....

Interviewer .....

9.4.3 Do you clean the container before use, how?

.....

.....

9.5 Where do you get water during periods of shortage?

.....

.....

9.6.1 How do you think water supply could be improved (open)?

.....

.....

.....

9.6.2 Would you be prepared to contribute labour or money to improving the system?

.....

9.6.3 Whose responsibility is it to provide more water systems?

.....

.....

.....

9.6.4 What do you do with household waste water (from bathing, cooking etc.)

1) use sink and drainage
2) sullage pipe - where does it drain to
3) throw outside door ☐
4) other, specify

.....

.....

Town ..... Ward No ..... Tole ..... House No .....

Interviewer .....

9.7 Are there any problems with the method you use? What?

.....

.....

9.8 During monsoon, or at other times does water collect around the house? Where? (prompt about location; courtyard, street, etc.)

.....

9.8.1 Is this a problem?

.....

9.8.2 What should be done about it?

.....

FOR WOMEN - SANITATION

10.1.1. Where do the numbers of this household normally defecate?

.....

10.1.2 Where do you go?

.....

10.1.3 Would you use a communal toilet?

1) Yes 2) No ☐

10.1.4 If yes, do you know what sort would be acceptable and how far would you go to use it?

.....

.....

Town ..... Ward No ..... Tole ..... House No .....

Interviewer .....

10.1.5 If you would not use a communal toilet, why not?

.....

10.1.6 If you have a private latrine, do the children use it?

1) Yes 2) No ☐

10.1.7 If not, why not?

.....

.....

10.1.8 What do you do after defecating? Do not prompt.

1) cleaned anus (how)
2) disposal of faeces (how) ☐ ☐ ☐
3) washed hands

10.1.9 What do children do after defecating? Do not prompt.

1) cleaned anus (how)
2) disposal of faeces (how) ☐ ☐ ☐
3) washed hands

10.1.10 Is children's excreta harmful?

1) Yes 2) No ☐

10.1.11 If yes, why?

.....

.....

10.1.12 Do you know of any diseases caused by poor sanitation?

1) Yes 2) No ☐

Town ..... Ward No ..... Tole..... House No .....

Interviewer .....

10.1.13 If yes, what are they?

.....

.....

10.1.14 Do you know how these diseases spread?

.....

.....

10.1.13 What problems do you see with current practices? (open)

.....

.....

.....

HYGIENE

11.1.1 When did you wash your hands yesterday (after or before what activities?). Do not prompt.

1) after defecation (of self/children)
2) before cooking
3) after handling animals
4) after cleaning/sweeping
5) before doing puja
6) before feeding children
7) other, specify

.....

11.1.2 Why do you wash your hands (open question)?

.....

.....

11.1.3 With what materials?

1) soap and water
2) water only
3) other, specify

.....

Town ..... Ward No ..... Tole ..... House No .....

Interviewer .....

11.2.1 How often do you bathe?

	Winter	Summer
1) every day or more 2) every other day 3) twice a week 4) once a week 5) twice a month 6) other, specify	☐	☐

11.2.2 What materials do you use?

1) water only 2) soap and water 3) oil 4) other, specify	☐	☐

.....

11.2.3 Why do you bathe?

.....

11.2.4 Are there reasons for not bathing?

1) availability of water 2) ritual/religion 3) seasonal 4) other, specify	☐	☐

.....

.....

11.3.1 How often do you bathe your children?

	Winter	Summer
1) every day, or more 2) every other day 3) twice a week 4) once a week 5) twice a month 6) other, specify	☐	☐

.....

Town ..... Ward No ..... Tole ..... House No .....

Interviewer .....

11.3.2 How often do you wash your children's hands (after or before what activities)?

.....

.....

.....

11.3.3 What problems do you have in keeping children clean?

.....

.....

.....

11.3.4 Is it important to keep children clean? Why?

.....

.....

.....

SOLID WASTE

12.1.1 What garbage do you throw out on a daily basis? Examples?

.....

.....

12.1.2 Where do you throw garbage in the house?

.....

.....

Town ..... Ward No ..... Tole ..... House No .....

Interviewer .....

12.2.1 Where do you throw garbage outside?

1) in yellow skip
2) out of the door
3) at recognised garbage heap
4) put out for animals ☐
5) other, specify

.....

12.2.2 If not, in yellow skip why not?

1) too far away (how far is it ?)
2) do not know where it is (i.e. not available)
3) dirty
4) not emptied ☐
5) other, specify

.....

12.3 What problems do you have in throwing garbage away?

.....

.....

12.4.1 Is the environment immediately around your house clean?

1) Yes 2) No ☐

12.4.2 Interviewer's impression?

1) Yes 2) No ☐

12.4.3 If no, whose responsibility is it to clean it?

.....

.....

Town ..... Ward No ..... Tole..... House No .....

Interviewer .....

12.5 Does anyone sweep street garbage away?

1) Yes, who? ..... 2) No.

How often ?.....

12.6.1 Do you sort any garbage for reuse or sale?

1) Yes 2) No.

12.6.2 Do you collect human or animal excreta for composting?

1) Yes 2) No ☐

12.6.3 If yes, what method do you use?

.....

.....

12.6.4 Is this for own use or for sale?

1) Own use 2) Sale ☐

12.7 If you keep animals, what do you do with their waste?

.....

.....

12.8 What are the main problems in your immediate environment? (open ended)

.....

.....

.....

Town ..... Ward No ..... Tole ..... House No .....

Interviewer .....

HEALTH

13.1 Has anyone in your family been sick in the last six months ?

Age	Sex	What illness ?	Who cured it ?	With what ?	Where did you first go ?	Why ?
		1. TB 2. fever 3. resp. disease 4. dysentry 5. jaundice 6. accident 7. other, specify	1. doctor 2. other h.w. 3. vaidya 4. pharmacist 5. trad. healer 6. other, specify		1. hospital 2. health post 3. other clinic 4. pharmacy 5. trad. healer 6. other, specify	

– prompt about children, question about diarrhoea or cough etc.

13.2 In which season do you have most problems with sickness ?

1. Chaitra/Baisakh
2. Jestha/Asadh
3. Shrawan/Bhadra
4. Asoj/Kartik
5. Mangsir/Poush
6. Magh/Falgun

☐ ☐ ☐
(accept up to three answers in order of priority).

13.3.1 Who do you normally first see about serious illnesses or what do you do?

1) hospital
2) clinic
3) vaidyas
4) dhami/jhankri
5) do puja
6) go to pharmacy
7) see compounder
8) other, specify

☐ ☐ ☐

If more than one answer put in order of priority.

Town ..... Ward No ..... Tole ..... House No .....

Interviewer .....

13.3.2 Why do you do this?

.....

.....

13.3.3 If you do not use the clinic or hospital, why not?

1) distance
2) cost
3) staff attitude
4) other, specify

.....

13.4 What do you do to try and prevent illness? (specify)

1) diarrhoea.....

2) respiratory disease.....

3) fever .....

4) T.B.....

5) other.....

13.5 Is anyone in the household disabled? Prompt.

Disability no.	Age	Sex	Using services,	specify

1) Paralysed
2) Lame
3) Blind
4) Deaf
5) Mute/speech defect
6) Cretinism
7) Leprosy
8) Mental handicap
9) other, specify

.....

Town ..... Ward No ..... Tole ..... House No .....

Interviewer .....

13.6 Has anyone died in this household over the last year?

Age	Sex	Lay cause	Was death registered

13.7.1 What do you do when a child gets diarrhoea?

.....

13.7.2 If mentions oral rehydration solution (nun chini pani) how is it made? (ask for mock demonstration)

1) knows well 2) do not know

13.7.3 How did you hear of ORS or Jeewan Jal?

.....

13.7.4 How do children get diarrhoea?

.....

.....

13.7.5 Who is the best person to treat diarrhoea ?

.....

13.8.1. How often do you and the children normally eat?

1) once a day
2) twice a day
3) more often

☐

13.8.2 Is this the same all year round?

1. Yes 2. No ☐

13.8.3 If not the some all year round specify when food is less available ?

.....

13.9.1 Immunisation - has anyone had

Town ..... Ward No ..... Tole ..... House No .....

Interviewer .....

Person no.	Age	Sex	When	Where	What

1) BCG
2) DPT, 1, 2 & 3.
3) Polio
4) Measles
5) Tetanus Toxoid
(women ages 15-45)

.....

13.9.2 If children not immunised, for what reason? (probe)

.....

13.10 Who are the most influential women in your community (who do you respect and listen to) - name two if possible.

1).....

2).....

13.11 Is anyone in this household pregnant?

1) Yes 2) No ☐

If yes, who ?.....

THEN ASK PERMISSION TO INTERVIEW PRIVATELY - FORM PREGNANT

13.12 Has anyone had a baby in the last twelve months?

1) Yes 2) No ☐

If yes, who ? .....

THEN ASK PERMISSION TO INTERVIEW PRIVATELY-FORM POSTPARTUM

Town ..... Ward No ..... Tole..... House No .....

Interviewer .....

14. CONCLUDE

14.1 What are the main problems for your family or community? Open ended. Elaborate where possible.

Possibilities include -

1) education (child)
2) solid waste disposal
3) water
4) income
5) child care facilities
6) adult education (literacy)
7) general awareness
8) land ownership
9) toilet provision
10) health
11) housing
12) skill training
13) other, specify

Rank 1 - 5 (1 = top priority)

.....

.....

.....

.....

.....

14.2 Do your children go to school?

1) Yes 2) No

If answer is yes check whether it is all children or only boys.
If not, why not? Expand

.....

14.3. If there was a programme in this area what would you most like to see done? Would you get involved?

.....

.....

STOP INTERVIEW AND THANK RESPONDENT FOR AN INTERESTING INTERVIEW.

ANNEX 2

SUMMARIES OF FOCUS GROUP DISCUSSIONS

Pocket C: Rani Area - Mehatar Tole, Ward Number 19

Male Participants
Focus: Education, Health and Sanitation

- There are altogether 60 sweeper families living in *Mehatar Tole*. Most of them live below the poverty line and face hardship throughout the year. About 40% of the male sweepers are employed in factories or by the municipality. Those working in the factories earn about Rs.620/ per month. Only four women sweepers are employed. The rest of the women and most of the youths are unemployed.

- Most of the families do not have their own houses, and have to rent. The factory employees have living quarters provided for them. This housing is partly subsidised by the factories, but workers still have to pay Rs.84/ monthly rent. The families who have factory accommodation usually let relatives or friends live with them. When factory officials occasionally inspect the houses, the families hide the unofficial occupants. Because of the resulting overcrowding, some family members have to sleep on verandahs.

- Most of the residents in this *tole*, including the women, drink alcoholic beverages, and many, even children, also smoke. A large proportion of their income is spent on alcohol, cigarettes and *bidis*.

- The Bidhya Bikash Primary School in this ward has about 700 students. Education up to Class 6 is free, but Classes 7 and 8 have to pay for their tuition.

- Only ten or twelve children from sweeper families attend school. Low attendance is attributed to illiteracy of the parents, their feeling of inferior status in society, and poverty. The participants said that they cannot afford to send their children to school. Some of them also said that their children do not need to be educated since they belong to the sweeper's group; their children will probably also be sweepers as the occupation is handed down from generation to generation.

- Being the only school in the ward, demand for admission is high. When competing for the limited places in the school, the sweepers face another

problem. The school requires birth certificates for admission, which the parents generally don't have.

- Some members of the community commented that the school is of a very low standard. They said that the teachers are irresponsible, do not care for the children properly, and sometimes just take attendance and then go to the bazaars for other business.

- Some children's guardians said that they would like their children to attend school, but with their status, they cannot afford the cost of education. They suggested that if the government provided free education, including tuition, stationery, books, supplies and uniforms, then their children could be educated.

- The sweepers said that to improve their standard of living, they need assistance in the form of loans, and skills development in livestock and handicrafts production.

Health and Sanitation

- The houses, the courtyards and the streets of Mehatar Tole are very dirty and unhealthy. The municipality has not provided any facilities for the community. The residents of the *tole* said that they had agreed to clean the streets and courtyards once a week, and a representative from each house collects the garbage and cleans the streets. In spite of this, the area remains dirty.

- There are 14 toilets (eight for males and six for females) in the area built by the Biratnagar Jute Mills, though during the time of the study, these toilets were under reconstruction. While these toilets were made for the use of employees and their families, they have become public toilets that cater to all. The sweepers feel that they need separate toilets so that they can maintain them better. However, they cannot afford to construct their own private latrines, and there is no land for this purpose. They said that if land were made available, they might be able to construct a makeshift latrine and would be able to clean it regularly.

- Garbage is a growing problem in Mehatar Tole as there are no facilities for collection and disposal. The community wants this problem solved immediately by installing a garbage collection container and developing a disposal system.

- There is a health post in the area and a hospital in the vicinity of the Jute Mills factory. Medical consultations are free but not the cost of medicine and other medical supplies. Most of the poor who come for treatment

cannot afford the high cost of medicines prescribed, not even a dressing. The Mehatar Tole residents also go to the Biratnagar Hospital, either for further medical services or whenever they are dissatisfied with the services of the health post and the local hospital.

- The hospital at Jute Mills used to give free medicine but not any more. Instead, it now provides a medical allowance of Rs.400/ to their employees. The employees are, however, not very satisfied with this system. They say the allowance is not enough, so they tend to use the money for other purposes. They would prefer the previous system of free medicine.

- Most of the community people do not know about ORT. They said they sometimes buy rehydration powder from the bazaar when their children have diarrhoea, but most of the time they administer other local medicines, such as the liquid of *pudina*.

- Most of the participants still believe in and seek treatment from traditional faith healers (*Dhami-Jhankris*). They believe that ailments such as headache, stomach-ache, fainting and unconsciousness, are caused by offending witches. Residents also avail themselves of the modern medical facilities at the health post and hospital. For emergency cases, they can also call for the ambulance service which charges Rs.55/ per call.

- The *Mehatars* are treated as lower-caste people in society; they have a separate tubewell for drinking water, but there is only one and it is always crowded. At times when something goes wrong in the queuing system, fighting occurs. When the tubewell is out of order, they have to go to the nearby community, but they feel uneasy doing so since they are considered untouchables. The community feels that it needs at least two or three more tubewells to meet their needs.

Pocket C: Rani Area, Ward Number 21

Male Participants
Focus: Health and Education

- Most of the people in this area are wage-earners (rickshaw pullers, mechanics, and so on). Only a minority (about 10%) of the people in this area have passed their School Leaving Certificate. Most residents are so poor that they cannot afford to send their children to school. Free education is provided only up to Class 3, and hence most of the children stop attending school after that level. These children resort to scavenging - collecting plastics and oil tins from the garbage, washing and selling them.

- The participants felt that if education for their children, including uniforms, could be subsidised by the government, they might be able to send their children to school.

- A large majority of the residents of this area have no toilets, and only about 10% have pit latrines. They said the adults used these toilets, but their children were afraid and never use them. Also, when the collecting bin gets filled up, the sweeper who disposes of the contents does not manage it well, spilling most of it along the roadside.

- Most of the residents still use the open spaces near Mantha Pokhari to defecate. They have suffered from lack of toilets for six years. They need at least two toilets, one for males and one for females. Given a communal toilet, they said they should be able to maintain it clean and have their children use it.

- As a result of poor sanitation in the area, many people become sick, especially the children, mostly with gastro-intestinal diseases such as diarrhoea, and malaria. They usually go to the Biratnagar Hospital for medical treatment, and said they found the services in this hospital satisfactory. There is no health post in this area, and they feel that they need at least one so that they do not have to go so far for medical services.

- Most of the mothers administer *nun-chini-paani* (homemade ORT) to their children with diarrhoea, and they go to hospital for other ailments.

Pocket C: Raghupati Mills Area

Female Participants
Focus: Health, Sanitation and Education

Health and Sanitation

- All males in this area work in the Raghupati Mills, and their families stay in the living quarters of the Mill.

- There are two communal toilets in this area, both for females. These toilets have been closed because they were so dirty. Hence, all the residents go to defecate in open places. Children, on the other hand, defecate in front of the neighbour's houses, which at times causes conflict. The children's mothers defend them, saying that it is not the neighbour's private land, but company land, so everyone has the right to use it.

- The workers' quarters occupy a very small place, and there is hardly any space on which to build a latrine.

- All the participants voiced the need for a communal toilet for the males, and to have the two old ones fixed and cleaned so that they can be used again.

- They have one communal space on which to throw all their garbage. Thus, they feel they have no real problem in this regard.

- There is no drainage system in the area. During summer or the monsoon season, water collects all around the area and even inside the houses. The residents have to spend extra time throwing out the water that accumulates.

- When water stagnates all over, most diseases occur, particularly among children who are prone to diarrhoea and vomiting during this period.

- For medical treatment, the participants first consult the *Dhami-Jhankris*, and only if they are not cured do they go to the hospital or clinic.

- Since there is no health post in the area, when they get sick and need to go to the hospital, they have to travel a relatively long distance. Moreover, according to them, the hospital service is not very good as the staff tend to behave indifferently to poor people like them. There is also no free medicine provided. The participants voiced the need for a health post in their area that could also provide free medicine.

- If children get diarrhoea, they said they feed them with rehydration solution and *nun-chini-paani*, though they also said that they don't actually know how to prepare this homemade rehydration fluid.

Education

- Since all males in this area are wage labourers, mostly with three or four children, they said they cannot afford to send all their children to school; at the most they can send one or two only.

- There is only one primary school in the area, with a population of about 1,500 students up to Class 6. There are no benches, chairs or desks, so children sit on mats. There are 50 to 60 students in a class; such congestion during the summer is very uncomfortable for the students.

- According to the participants, the teachers in this school do not behave well and do not treat the students well. The teachers bite the students to punish them for any misdemeanour, including not wearing a proper uniform

everyday, which for most of the students is not possible. The parents have complained about this strict requirement, since they can barely afford to buy their childrens' uniforms. It is enough, according to them, that they are able to afford their childrens' school fees. In fact, some children have dropped out of school as they cannot fulfill the uniform requirement.

- Some simply cannot afford the school fees. The participants said that the government should provide free education, and that there should be two or three more schools in their area. They have a good regard for education, saying that if their children get educated, they can take care of them better in their old age.

Pocket Area C: Rani Area, Hari Nagar Bhatta

Male Participants
Focus: Health, Sanitation and Education

- Most of the people in this area are very poor. There are about 2,000 wage labourers here, and about 1,000 houses. Most of the families have five or six children.

- None of the families in this area has a toilet, a drinking water tap or garbage and drainage systems.

- While there used to be a communal toilet for females only, because of poor maintenance it became so dirty that no one dared to use it. Now only those who can stand the filth use this toilet. On the other hand, nobody is trying to clean and maintain it; even the sweeper refuses to clean this toilet. Hence, everyone uses the open space to defecate, mostly in the early morning or in the evening. During the rainy season, however, using the open fields becomes dangerous because of snakes. There have been several cases of deaths due to snake bites while defecating. The children defecate just anywhere, mostly on the roadside.

- According to the participants, there is empty land that could be utilised for constructing at least two communal toilets, one each for females and males. Two toilets could solve their problem, they said.

- There is only one communal tubewell in the area; hence, it is always crowded. Residents have to queue for two to three hours to be able to get water. When this tubewell breaks down, money is collected from all the users for the cost of repair.

- There was a water tank installed in the area ten years ago, but it does not supply water. The participants said they desperately need an additional tubewell to meet their needs for water.

- There is no drainage nor garbage collection system in the area. Residents just throw their waste water anywhere, as with the garbage. This problem is compounded during the rainy season when water accumulates even inside their houses.

- During the monsoon the outbreak of gastrointestinal diseases is high, especially among children. Some children die during this period, especially since the Biratnagar Hospital, where they have to go for treatment, is far away, and the company does not provide free medicine in time. They also said that they only dare go to the hospital if they have money; otherwise, even if they are very ill, they just stay at home.

Pocket C: Rani Area, Ward Number 21

Female Participants
Focus: Health, Sanitation and Education

Education

- There are two schools in this area: the Jana Bikash and the Milan. About 25% of children in the area attend one or the other of these schools.

- Most of the children cannot attend school because of poverty. The parents cannot afford to pay the fees (up to 32% for Classes 1 - 6 and 50% for higher classes, which comes to a few Rupees per month), as well as the cost of uniforms and stationery. The participants added that school teachers behave badly, punishing students that do not conform to the uniform requirement. The parents said that they are fed up with the issue of uniform requirements in the school.

- The children who do not attend schools just pass their time playing and watching videos/films.

Health

- The area is very dirty. Nobody takes responsibility for cleaning the surroundings, not even the sweepers. The residents throw their solid waste anwhere.

- Most of the people in this area have pit latrines. However, these pit latrines are already overflowing. When the collecting bins are full, the sweepers do not collect and dispose of the contents. The residents who do not have pit latrines use the open fields.

- Most of the participants said they want their own family latrine, not communal ones, as communal latrines tend to be dirty, even after barely two months of installing them. They feel that communal toilets would be poorly maintained. They have had a latrine problem for the last three years. They said this dirty environment is the cause of their diseases.

- The mothers in this area mentioned that whenever their children get ill, they usually go to the hospital for treatment. Others still prefer to consult the traditional healers, who usually demand some meat and whiskey for home services.

- Most of the children in this area have been immunised. The participants whose children are not immunised cited their lack of money and distance from the service (Biratnagar Hospital is very far from this area).

- Family planning services are available in this area. There is even an incentive of Rs.100/ given to those who avail themselves, which is attractive to the mothers.

Pocket Area C: Darjee Patti (Dhobi Hari), Ghogapul

Male Participants
Focus: Health, Sanitation and Education

Sanitation

- Residents of this area have no garbage disposal system. They just throw their solid waste around their houses, and nobody is in charge of cleaning it. Hence, the whole surroundings are very dirty.

- The road is also badly damaged. Residents have tried collecting donations from among themselves to be able to repair the road, but since most of the community members are tailors, and only a few are officers (service), they were not able to collect enough for the repair.

- Residents throw their waste water in the surroundings such that because of the lack of drainage, water accumulates all around. They said that to solve this drainage problem, they need containers and drainage pipes.

- Participants also mentioned one electric pole that badly needs replacing, as it is already damaged and leaning. They requested that the government repair it, but have received no response. The residents consider their ward the worst one of all, taking into account the problems with the road, drainage, and so on.

- All the residents in this area obtain drinking water from a tubewell. While eight houses have private taps, they also use the communal tubewell.

- They said that during the monsoon season, many of them, especially children, get diarrhoea because of the drinking water from the tubewell. When they get sick, they go to Biratnagar Hospital or to a clinic.

Education

- The literacy level is very low in this area. Only six males have passed the School Leaving Certificate exam. The residents are mostly poor, and they cannot afford to send their children to school.

- The children who do not go to school help their parents in the tailoring trade.

- The eight- and nine-year-old Muslim children attend the *Madarasa* which is about a 10- or 15-minute walk away.

Pocket Area A: Sarochia

Female Participants
Focus: Health, Sanitation and Education

Health

- There are no health facilities, not even a health post, in this area.

- In severe illness, residents go to hospital, even if they dislike the indifferent treatment the staff give to patients like them, and the fact that the staff do not provide medicine in time. The private doctors that can be reached and can treat immediately are very expensive.

- The participants said that during the summer, most residents suffer from malaria, while in the winter, they, and especially the children, get sick with measles and diarrhoea. They said they feed their sick children *nun-chini-*

paani, although when asked if they know how to prepare it, it seemed that they knew little about it. For measles, they said they have a home remedy: they keep the children indoors in a separate room, the mother does the *puja* in that room and in the evening, she sings a song. After three days, the child is cured.

- They said that there is one disease that attacks children in every season, so severely that they have to take them to the hospital immediately, where they are usually cured after five or six days. The participants said this particular disease is due to eating stale food, which they cannot help at times because they are very poor. They feel that if they were better off economically, they would not get sick as much.

Sanitation

- All the residents of this area throw their solid waste anywhere; there is no fixed place to dispose of their garbage, neither is there anyone to clean the area.

- The males in this area are mostly rickshaw pullers. The participants said that the rickshaw pullers defecate early in the morning, and they could not care less about their dirty surroundings. They said that if the ladies raised complaints about their habits to the authorities, the municipality would rebuke them.

- Most of the people in this area do not have toilets and use the open spaces. For those few who have toilets, their children still defecate along the roadside or anywhere else, as they are afraid to use the toilets. On the other hand, those who do not have toilets voiced the need for communal toilets so that their children can use them also.

- Most of the residents stay in rented houses, where there are about three or four members per household. Hence, the lack of toilets is really a grave problem for them, they said.

- The municipality has dug land for their drainage.

Pocket Area C: Darjeepati (Rani Area)

Female Participants
Focus: Postpartum (Home Delivery)

- All of the participating mothers in this focus group gave birth in their own homes and not in hospitals. They said they feel more confident delivering at home, since their own family members can assist them. They have an impression of the hospital as "something bad and uncaring". They also feel that going to hospital is "just for show or only for those that are better off".

- They said that their own mothers, who have 10 to 12 children, all delivered at home since there were no hospitals at that time. Most of the residents of this area are Muslims, and traditionally have their deliveries at home, though some rich and modern families use the hospitals.

- Most of these mothers had no prenatal care during their pregnancy, not even the necessary injections. They feel that injections are not important during pregnancy, and that if they had an injection, they wouldn't be able to work for five or six days.

- None of the children of the participants had been immunised. These mothers said that they were afraid of it, and that it is better to give the children these injections when they are 15 or 16 years old and can bear the pain.

- During delivery, they seek the help of the traditional midwife, the *sudeni*, from Jogbani, which is rather far from their area. The *sudeni* brings a blade, coin and thread, which are her tools to assist delivery. She puts the coin under the cord, then cuts the umbilical cord with the blade and ties the cord with thread. She sterilises the blade by boiling it first. She does not throw away the blade as she will re-use it. She assists both the mother and the baby for about six or seven days, charging Rs.10/ per day and one kilo of rice, and and extra Rs.20/ for cutting the umbilical cord. She usually stays with the mother for as long as the family wants her to assist. The *sudeni* is the mother's source for all advice related to postpartum care. The *sudeni* herself doesn't believe in hospitals and modern medicine.

- The participants said that most of the couples in this area use some form of family planning, usually pills and condoms, but some said they do not use anything because they are afraid.

Pocket Area C: Raghupati Jute Mills (Rani Area), Hari Nagar Bhatta

Female Participants
Focus: Postpartum (Home Delivery)

- Some of the mothers go to hospital for their deliveries, while some have their babies at home.

- The people of the area had one bad experience with the hospital service. Six months ago, a mother went to the hospital to deliver her first baby on a Sunday morning. The only nurse on duty told her to hurry up her delivery as she wanted to watch the television serial "Mahabharat" (on Indian TV) along with the other hospital staff. When this mother had prolonged labour and couldn't hurry up her delivery, the nurse got agitated, bit her and left to watch the TV serial. After the programme, she came back only to find that the mother was dead. This earned the ire of the people and for about six months very few mothers availed themselves of hospital services for delivery. Even those who used to go stopped doing so because of the alleged bad behaviour of hospital staff.

- Those who do not go to the hospital for delivery cited monetary constraints, while some cited the poor staff behaviour to patients, such as not caring for the mother and the baby for at least three days after delivery. The participants said that if they are at home, the *sudeni* or their mother-in-law takes care of them. If some problems occur during home delivery, they can rush to the hospital.

- The mothers who still use the hospital services said that only about 5% of the staff are bad; the majority are not. They said that the hospital is neat and clean, that it can provide most types of treatment, including that for cases of retained placenta, postpartum bleeding, and so on, and medicines. They added that if they had their deliveries at home, the *sudeni* and mother-in-law (or whoever is assisting) cannot do anything for these problems, and the risk is high. However, these mothers said that they are very much afraid of the stitching (episiotomy) after delivery, although they know that it is a necessary treatment.

- The mothers do not go to hospital for prenatal care. They believe that if they have an injection during pregnancy, it could harm the fetus.

- The babies and children of these mothers are also unimmunised. The mothers said that they are afraid of "the unknown".

- All of the mothers know that they need to eat more nutritious foods during pregnancy and while lactating, such as meat, eggs, fruits and vegetables.

However, although they know it, they do not have the means to buy these foods. They usually do not have any food restrictions during pregnancy, and they do all kinds of work just the same.

- Some of the participants use condoms, pills or Norplant. Others who already have five or six children said that they want more children, and thus they do not use any family planning.

Pocket Area C: Raghupati Mills (Rani Area), Hari Nagar Bhatta

Female Participants
Focus: Postpartum

- Most of the families in this area have five or six children. Most of the women have developed incorrect perceptions about family planning: that family planning is very risky to the mother's health, and as many as 90% die as a result of surgical procedures for sterilisation (tubal ligation).

- Some of the women, though, use pills, condoms, Depo-provera and Norplant. They said they heard about family planning methods from the radio and through neighbours.

- Most of the women in the area do not go for prenatal check-ups. They believe that to conceive a child is God's gift, so that pregnancy is left in God's hands. Therefore, there is no need for check-ups. Others expressed ignorance of necessary injections and prenatal care, while others are simply afraid.

- They said that a majority (about 90%) of the mothers in the area give birth at home, and only a few (10%) go to hospital. They said that giving birth at home is much safer than in the hospital, as there is somebody in their homes to take care of them. In the hospital, staff are very indifferent to patients like them and do not take care of the mother after delivery. Also, hospital delivery is more expensive as they have to pay 100% of the cost on their own.

ANNEX 3

DETAILED TABLES OF RESULTS

(Please note that percentages on some tables do not total 100 because of rounding.)

TABLE 1 Ethnic Group of Male Respondents, by Pocket

	Sarochia		Ghogapul		Rani/Mills		All Sites	
Ethnic Group	No.	%	No.	%	No.	%	No.	%
Baishya	16	52	0	-	94	59	110	52
Muslim	11	35	20	95	34	21	65	31
Chhetri	1	3	1	5	21	13	23	11
Brahmin	3	10	0	-	10	6	13	6
Total (no. & %)	31	100	21	100	159	99	211	100

Table 2: Age-Sex Distribution of the Sample Population

	Males		Females		Total	
Age Group	No.	%	No.	%	No.	%
< 1 year	26	4	19	3	45	4
1 - 4 years	51	8	63	11	114	10
5 - 14 years	174	29	153	28	327	28
15 - 44 years	263	44	253	46	516	45
45 years and over	89	15	67	12	156	13
Total (No. & %)	603	100	555	100	1,158	100

Table 3: Average Number of Living and Dead Children, and Ideal Number of Children, by Gender, as Reported by Females

Particulars	Number of Children								
	Sarochia		Ghogapul		Rani/Mills		All Sites		
	Male	Female	Male	Female	Male	Female	Male	Female	TOTAL
No.of children at present	1.9	2.1	2.2	1.4	1.7	1.6	1.8	1.6	3.4
No.of deceased children	0.5	0.4	0.8	0.6	0.5	0.4	0.6	0.4	0.9
Ideal Number of children	1.7	1.4	1.7	1.2	1.7	1.2	1.7	1.2	2.9

Table 4: Female Respondents' Age at Marriage

Age (Years)	Sarochia		Ghogapul		Rani/Mills		All Sites	
	No.	%	No.	%	No.	%	No.	%
< 10	2	7	1	5	13	8	16	7
10 - 14	8	26	7	33	61	38	76	36
15 - 19	17	55	9	43	77	48	103	49
20 - 24	3	10	3	14	6	4	12	6
=> 25	1	3	1	5	2	1	4	2
Total (No. & %)	31	101	21	100	159	99	211	100

Table 5: Source of Income of Male Respondents, by Pocket

Income Source	Sarochia		Ghogapul		Rani/Mills		All Sites	
	No.	%	No.	%	No.	%	No.	%
Labourer	8	26	4	19	53	33	65	31
Business	5	16	10	48	20	13	35	17
Factory worker	3	10	0	0	30	19	33	16
Mason	2	6	1	5	18	11	21	9
Government service	2	7	0	0	10	6	12	6
Farmer	6	19	0	0	5	3	11	5
Rickshaw puller	4	13	1	5	2	1	7	3
Tailor	0	0	4	19	2	1	6	3
Unemployed	1	3	0	0	11	7	12	6
Other	0	0	1	5	9	6	10	5
Total (No. & %)	31	100	21	100	160	101	212	101

Table 6: Occupations of Female Respondents, by Pocket

Occupation	Sarochia No.	Sarochia %	Ghogapul No.	Ghogapul %	Rani/Mills No.	Rani/Mills %	All Sites No.	All Sites %
Housewife	22	71	18	86	129	81	169	80
Shopkeeper	5	16	2	10	13	8	20	9
Labourer	-	-	-	-	8	5	8	4
Other*	4	13	1	5	9	6	14	7
Total (No. & %)	31	100	21	101	159	100	211	100

*including tailoring, sweeping and farming.

Table 7: Reasons Cited by Women for Inability to Start Economic Activities, by Pocket

Reason	Sarochia No.	Sarochia %	Ghogapul No.	Ghogapul %	Rani/Mills No.	Rani/Mills %	All Sites No.	All Sites %
Lack of finance	18	58	8	38	100	63	126	60
Lack of skill	7	23	4	19	10	6	21	10
Need for child care	1	3	2	10	17	11	20	9
Lack of education	4	13	2	10	8	5	13	6
Other	1	3	5	24	24	15	31	15
Total (No. & %)	31	100	21	100	159	100	211	100

Table 8: Literacy Status of Sample Population (Six Years and Older), by Sex (%)

	Sarochia Fem.	Sarochia Male	Ghogapul Fem.	Ghogapul Male	Rani/Mills Fem.	Rani/Mills Male	Total Fem.	Total Male
Sample Population (All household members):								
Illiterate	73	32	75	50	64	26	67	30
Literate without schooling	2	10	4	19	4	10	4	11
Literate, attended up to Grade 3	5	19	7	19	14	34	12	31
Literate, attended Grades 3 - 10	21	36	15	11	17	26	17	26
Literate, attended above Grade 10	0	3	0	0	1	3	1	3
Number	66	72	55	62	329	375	450	509

Respondents only:

Illiterate	90	28	81	48	81	22	82	26
Literate	10	72	19	52	10	78	18	74
Number	31	31	21	21	159	159	211	211

Table 9: Sources of Drinking Water, by Pocket

Sources	Sarochia		Ghogapul		Rani/Mills		All Sites	
	No.	%	No.	%	No.	%	No.	%
Tubewells	18	58	7	33	63	40	88	42
Communal taps	5	16	10	48	49	31	64	30
Shallow wells	0	-	0	-	3	2	3	1
Not specified	8	26	4	19	44	28	56	27
Total (No. & %)	31	100	21	101	159	101	211	101

Table 10: Amount of Water Used by Activity (litres/day/household) by Pocket

Activities	Litres			
	Sarochia	Ghogapul	Rani/Mill	All Sites
Laundry	46.3	45.5	48.1	47.6
Cooking	20.8	19.3	16.3	17.3
Drinking	11.1	11.2	10.7	10.8
Toilet	10.3	13.3	12.5	12.3
Sanitation	21.5	18.6	22.8	22.2
Other uses	-	-	1.2	0.9

Table 11: Drinking Water Problems Expressed by Female Respondents, by Pocket

Types of Problem	Sarochia		Ghogapul		Rani/Mills		All Sites	
	No.	%	No.	%	No.	%	No.	%
Insufficient water	10	32	10	48	48	30	68	32
Overcrowded; long time to queue	2	7	0	-	17	11	19	9
Flooding problems during monsoon	1	3	1	5	4	3	6	3
Poor water quality	0	-	0	-	2	1	2	1
No problem or not specified	18	58	10	48	88	55	116	55
Total (N & %)	31	100	21	100	159	100	211	100

Table 12: Places for Defecation

Places	Sarochia		Ghogapul		Rani/Mills		All Sites	
	No.	%	No.	%	No.	%	No.	%
Open field	23	74	11	52	76	48	110	52
Own toilet	8	26	8	38	49	31	65	31
Community toilet	0	0	2	10	29	18	31	15
Other places	0	0	0	0	5	3	5	2
Total (No. & %)	31	100	21	100	159	100	211	100

Table 13: Occurrence of Illness (and Symptoms) during the Previous Month, by Pocket

Illness/Symptoms	Sarochia		Ghogapul		Rani/Mills		All Areas	
	No.	%	No.	%	No.	%	No.	%
Fever	2	40	1	100	9	39	12	41
Diarrhoea	1	20	-	0	6	26	7	24
Stomach-ache	1	20	-	0	3	13	4	14
Wound	-	0	-	0	2	9	2	7
Dizziness	-	0	-	0	1	4	1	3
Pneumonia	-	0	-	0	1	4	1	3
Asthma	-	0	-	0	1	4	1	3
High blood pressure	1	20	-	0	-	0	1	3
Total (No. & %)	5	100	1	100	23	99	29	98
% of Respondents Reporting Illness in Household		16		5		15		14

Table 14: Methods Suggested to Treat Diarrhoea in Persons of Any Age, by Pocket

Measures	Sarochia		Ghogapul		Rani/Mills		All Sites	
	No.	%	No.	%	No.	%	No.	%
Medicine	12	39	9	43	72	45	93	44
Oral rehydration therapy	10	32	1	5	48	30	59	28
Give soft rice only	4	13	5	24	13	8	22	10
Give hot water	2	7	5	24	8	5	15	7
Withhold rice	1	3	0	-	5	3	6	3
Give rice + curd	1	3	0	-	3	2	4	2
Don't know	1	3	1	5	10	6	12	6
Total (No. & %)	31	100	21	100	159	100	211	100

Table 15: Measures Taken to Treat Dehydration due to Diarrhoea in Children, by Pocket

Measures	Sarochia		Ghogapul		Rani/Mills		All Sites	
	No.	%	No.	%	No.	%	No.	%
Gave Jeevan Jal	8	26	7	33	79	50	94	45
Gave medicine	10	33	6	29	35	22	51	24
Gave *nun-chini-paani*	7	23	1	5	19	12	27	13
Went to hospital	2	7	1	5	7	4	10	5
Gave only soft rice	2	6	2	10	4	3	8	4
Followed doctor's advice	1	3	2	10	4	3	7	3
Other	0	-	0	-	1	1	1	1
Don't know	1	3	2	10	5	3	8	4
Not specified	0	-	0	-	5	3	5	2
Total (No. & %)	31	100	21	100	159	100	211	100