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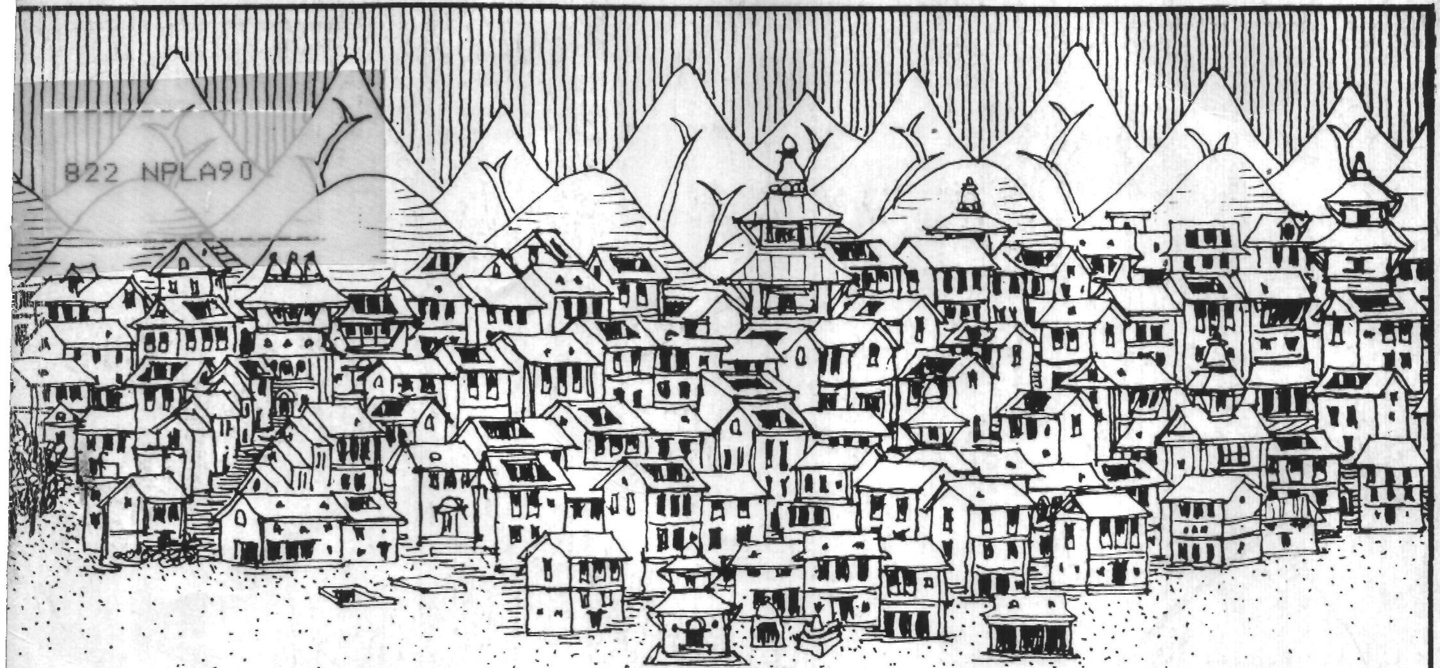
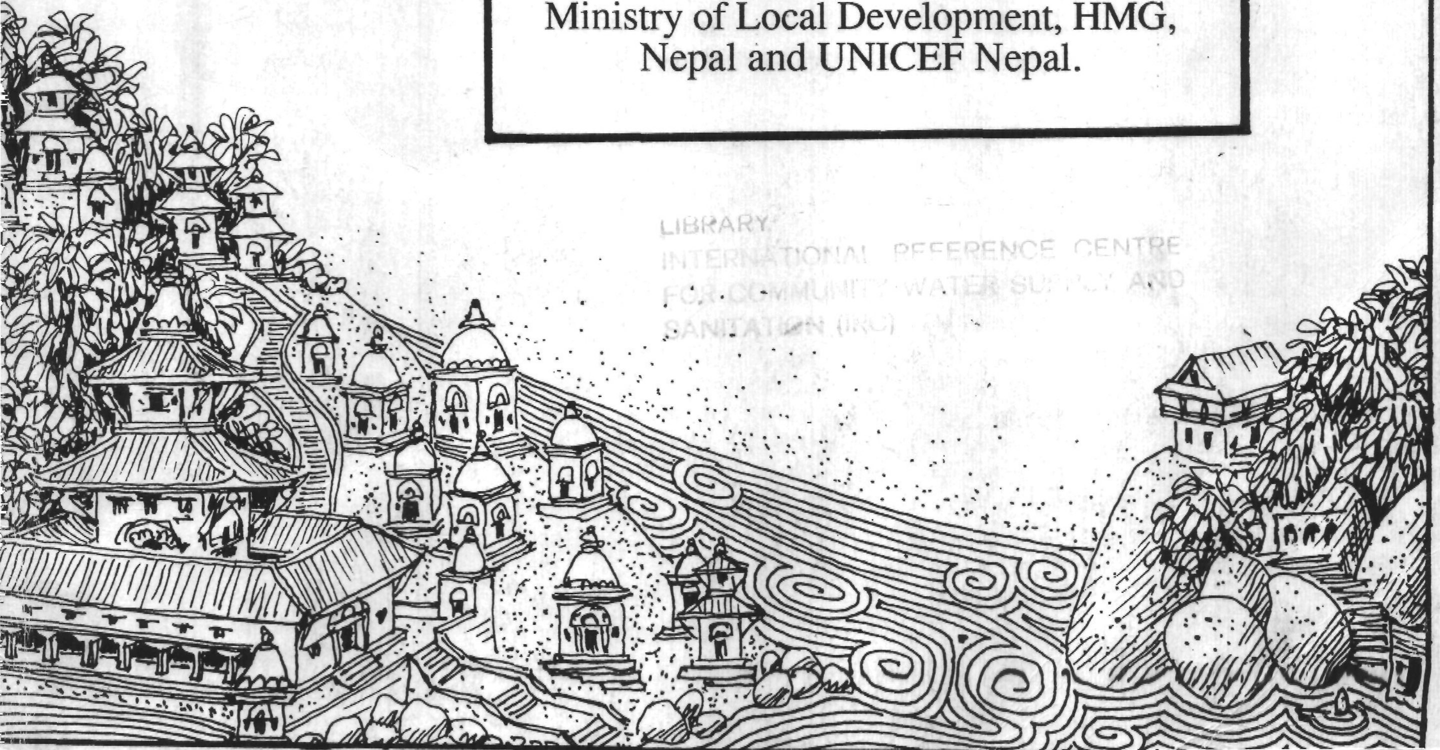


URBAN BASIC SERVICES
A COMMUNITY PROFILE

LALITPUR MUNICIPALITY

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



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URBAN BASIC SERVICES

A COMMUNITY PROFILE, LALITPUR, NEPAL

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

The views expressed in this document are the author's and should not be attributed to HMG/Nepal or to UNICEF.

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EXECUTIVE SUMMARY

The Urban Basic Services programme is due to be implemented in Nepal, in recognition of the growing problem of urban poverty. It is based on the model developed by UNICEF in over 40 different countries.

It has been noted in the last five years that a shift in population patterns has occurred with migration to the towns as the absorptive capacity of the rural Terai decreases. Added to this is the inherent natural urban population growth which leads some observers to calculate that the urban population could double within the next nine years.

Currently, the main agencies involved in urban planning are the Urban Development Division of the Ministry of Local Development and the Ministry of Housing and Physical Planning. Other line ministries also have responsibility for social and physical services in urban areas. In association with the government, GTZ (German Development Assistance) and the World Bank/UNDP have projects which address the problems of urban development but mainly through strengthening institutional capabilities. UNICEF, therefore, seeks specifically to target women and children living in urban areas through an approach based on participatory planning at community level.

The overall aim of the programme is to provide basic services for children and women in greatest need. Its specific objectives are to reduce infant and child mortality and to improve the situation and wellbeing of women through the integrated delivery of basic social services. The main objective for the first year of the programme was to identify the needs of the urban poor and to design a plan of action with the specific objectives of:-

- Accelerating immunisation.

- Promoting growth monitoring and nutrition promotion in the 0-3 age group.

- Reducing the incidence of diarrhoeal disease and increasing the use of oral rehydration therapy to 80% by 1992.

- Developing community based disability prevention and rehabilitation for children.

- Increasing literacy rates for women.

- Enhancing basic awareness of hygiene and sanitation and the promotion of safe water sources.

- Improving the economic standard of the families.

In accordance with the overall framework for UBS implementation a needs assessment will be conducted in each one of the five selected towns and this report provides the baseline data for the first phase of the project's implementation in Lalitpur (Patan).

MAJOR FINDINGS

The survey revealed that, while the overall economic status of the pocket area is not extremely poor, this area suffers many disadvantages. The physical environment is not conducive to healthy living and there are practical problems of drainage, solid waste collection and water supply. There is a group of socially disadvantaged sweepers (Podes) within the pocket area and, while their economic condition is generally adequate, they suffer a wide variety of social problems based on their inferior social standing in relation to other groups in the area. There is also a large number of out of school children and the female literacy rate is well below the urban average. Health problems related to poor sanitation and an inadequate water supply are common and there is a history of a very high child mortality rate in the area.

The study also reveals that attention to the socio-cultural environment is as important as attention to 'hard data'. An investigation of solid waste disposal methods, for example, showed that traditional Newari methods of waste disposal are still of importance in this community. Any programme has to take these factors into account to avoid making obvious mistakes or, even worse, to prevent total failure. Other examples of the importance of taking an anthropological approach to the process of data collection are to be found throughout the study. The complementary approach of using sociological and anthropological methods, while not perfect, gives a greater chance of gaining accurate data rather than reliance on one single method.

Overall, education was identified, by the respondents, as the major problem with a large number of eligible school age children not attending school despite the availability of schooling facilities. In health there was noted to be a morbidity pattern similar to that in poor rural areas, further exacerbated by poor and damp standards of housing. Water supply quantity was inadequate, leading to problems with the maintenance of general standards of hygiene and poor health due to the use of well water during periods of shortage. Solid waste disposal caused further health hazards as the majority of women still dispose of waste in the immediate vicinity and do not use containers. Added to drainage and sewerage problems and the lack of toilet facilities in some areas, the picture is of a depressed and poor urban community. It is not at the bottom of the poverty scale as many people still have access to land but the majority live below the poverty line with all the consequent social and economic problems that this entails.

The study confirmed that the activities already proposed by UNICEF, after consultation with the community, are appropriate but that more concentration may be needed in the area of primary education, especially for Pode children. An initial focus on the provision of home or centre-based child care will create goodwill and could free women for other activities that have been proposed such as tailoring, carpet weaving and knitting. Support to traditional birth attendants (TBAs) and popular local healers, such as the vaidyas, should have a direct and immediate impact on child health as these people are frequently consulted about child health problems. In the case of the TBAs it was revealed that their practices, while not directly harmful, are sometimes inappropriate.

The priorities identified by the respondents both in the survey, and in focus groups, were education, low income (particularly the generation of income for women), solid waste disposal and water supply. A specific need identified by younger women in the childbirth focus groups was for some sort of child care provision so that they could take the opportunity to earn extra income. The value of questioning men and women separately was confirmed both in the baseline data and in the group discussions as priorities and responses were often differed according to gender. Limited participant observation revealed some of the cultural practices which cannot be gleaned easily through questionnaires. This data can often be missed by people overly familiar with the setting unless they are trained in anthropological method.

It was noted throughout, but particularly when discussing whether people are interested in the UNICEF programme, that there is great interest and energy in this area and people are very keen to get involved in activities which they can see as having a tangible effect on improving the quality of life. There should be few problems in motivating the community and, for that reason, both UNICEF and the local programme implementers should have a rewarding experience. Their efforts will be appreciated and the community has the expertise locally to be able to get involved and take over many components of the programme with minimal outside assistance. They are constrained, however, by lack of capital and, clearly, large scale infrastructural development schemes are outside their capabilities. Throughout the pocket area there are respected and skilled individuals who are interested in participating in community development activities. There are health assistants, teachers, TBAs and people with a long history of voluntary social service.

This study also indicates other areas that would be fruitful to investigate in more depth and concludes with some specific recommendations for programme implementation. While it is not possible to include, in full, the reports of all group discussions or the total analysis of the baseline data, all these documents and guidelines for focus group discussions are available for any interested party to consult.

ACKNOWLEDGEMENTS

The study team benefitted from the help and advice of a large number of institutions and individuals. Particular thanks are due to UNICEF who funded the study and provided valuable guidance. Thanks are particularly due to Mr Raymond Janssens, Ms Isabel Crowley and Mr Heinz Boeni for their support and advice. Dr Marta Levitt of the Division of Nursing (Redd Barna) has provided constant encouragement and practical advice throughout and the methods she developed for the John Snow Incorporated (JSI) study have been used as the basis for the childbirth study in this report. Mr Kiran Thapa spent many hours analysing data and helping with the layout and production of the report. Without his good natured and constant assistance the report would not have appeared in the form it is now and I thank him most gratefully.

Dr Shambu Dunghana of DECORE provided consistent and valuable help at all stages of the study. Sincere thanks also to Mr Sergej Presern who gave assistance throughout, particularly with photography. The study team itself, especially Mr Gokal Pyakurel, are also due grateful thanks for the long hours they put into the field work and for their assistance in focus group discussion report writing. Thanks are also accorded to Mr R. K. Tiwari of MLD and Mr B.K. Shresta of MHPP for their support and to Mrs Chandini Joshi of the Women's Development Division for her permission to incorporate some parts of the PCRW questionnaire into the female UBS questionnaire. Thanks are also due to Mr Umesh Malla, and the staff of DHUD.

The staff of the United Mission to Nepal, Community Development Health Programme (CDHP) gave their time and the benefit of their experiences in the field during the preliminary stages of questionnaire design, as did the staff of the Urban Development through Local Efforts programme. The staff of Redd Barna, particularly Ms Manjuri Singh, generously shared their experiences. Mr Kavitra Ram Shrestha of JSI gave some guidance on conducting focus group discussions. The World Bank gave assistance in providing resource materials. Ms Jayne Weaver, Seti Project and Mr Rob Soley, (now SCF Malawi) provided useful comments and advice.

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There is not space to acknowledge the many other people who gave valuable help but their contribution is much appreciated. I gratefully acknowledge the comments made by many on the draft reports. All errors and omissions, however, are mine.

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LIST OF ACRONYMS

BCG	BACILLE CAMILLE GUERIN - IMMUNISATION FOR TUBERCULOSIS
CDHP	COMMUNITY DEVELOPMENT HEALTH PROGRAMME
CEDA	CENTRE FOR ECONOMIC DEVELOPMENT AND ADMINISTRATION
DHUD	DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
DPT	DIPHTHERIA PERTUSSIS TETANUS - TRIPLE VACCINE
GOBI-FFF	GROWTH MONITORING, ORAL REHYDRATION, BREAST FEEDING, IMMUNISATION - FEMALE LITERACY, FAMILY PLANNING AND FOOD SUPPLEMENTATION
GTZ	DEUTSCHE GESELLSCHAFT FÜR TECHNISCHE ZUSAMMENARBEIT (GERMAN ASSOCIATION FOR TECHNICAL COOPERATION)
HMG	HIS MAJESTY'S GOVERNMENT
JSI	JOHN SNOW INTERNATIONAL
KAP	KNOWLEDGE, ATTITUDES AND PRACTICE
LRTI	LOWER RESPIRATORY TRACT INFECTION
MCH	MATERNAL AND CHILD HEALTH
MHPP	MINISTRY OF HOUSING AND PHYSICAL PLANNING
MLD	MINISTRY OF LOCAL DEVELOPMENT
ORS	ORAL REHYDRATION SOLUTION
PCRW	PRODUCTION CREDIT FOR RURAL WOMEN
PHC	PRIMARY HEALTH CARE
SCF(UK)	SAVE THE CHILDREN FUND (UK)
SLC	SCHOOL LEAVING CERTIFICATE
TBA	TRADITIONAL BIRTH ATTENDANT
TT	TETANUS TOXOID
UBS	URBAN BASIC SERVICES
UMN	UNITED MISSION TO NEPAL
UNCRD	UNITED NATIONS CENTRE FOR REGIONAL DEVELOPMENT
UNDP	UNITED NATIONS DEVELOPMENT PROGRAMME
UNESCO	UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANISATION
UNICEF	UNITED NATIONS CHILDREN'S FUND
URTI	UPPER RESPIRATORY TRACT INFECTION
VSO	VOLUNTARY SERVICE OVERSEAS (BRITISH VOLUNTEER PROGRAMME)
WHO	WORLD HEALTH ORGANISATION

EXPLANATION OF NEPALI AND NEWARI WORDS USED IN THE TEXT

AJI	TRADITIONAL BIRTH ATTENDANT (NEWARI)
AJI-MA	A GODDESS WORSHIPPED BY TBAS AND CHILDBEARING WOMEN, ORIGINALLY THE GODDESS OF SMALLPOX
BOKSI	WITCH, EVIL INFLUENCE
CHAKUR	MOLASSES
CHOWK	COURTYARD OR SQUARE
CHURA	BEATEN RICE
DHAMI/JHANKRI	TRADITIONAL HEALER
GAGRO	EARTHENWARE OR METAL CONTAINER FOR WATER
GANESH	A GOD OF THE HINDU PANTHEON
GUTHI	SELF HELP COMMUNITY ORGANISATIONS/TRUSTS
JEEVAN JAL	A COMMERCIALLY MARKETED ORAL REHYDRATION SOLUTION
JYAPU	CULTIVATOR CASTE
KAPALI	NEWARI RITUAL DANCING CASTE
KASAI	BUTCHER CASTE
LALITPUR	MORE COMMONLY KNOWN (OUTSIDE NEPAL) AS PATAN
LUKUSHI	A TOLE IN WARD 6 MAINLY INHABITED BY THE MAHARJAN CASTE
MAHARJAN	FARMER CASTE
NAINI	WOMAN OF THE KASAI CASTE WHO CUTS THE UMBILICAL CORD OF NEWBORN BABIES
NANGLO	FLAT RATTAN TRAY FOR WINNOWING GRAINS
NAUGA	AREA FOR ASH AND RUBBISH DISPOSAL INSIDE (THE HOUSE UNDER THE STAIRS
NUN CHINI PANI	HOME MADE SALT SUGAR WATER SOLUTION FOR ORAL REHYDRATION
PATTI	A MEASUREMENT OF RICE OFTEN USED AS PAYMENT TO A LANDLORD
PODE	SWEEPER CASTE
PRADHAN ADHIKRIT	PREVIOUSLY THE ADMINISTRATIVE LEADER OF THE LOCAL AUTHORITY
PRADHAN PANCHA	PREVIOUSLY THE HEAD OF THE LOCAL ADMINISTRATIVE UNITS (THESE POSITIONS WERE ABOLISHED IN APRIL 1990)
PUJA	PRAYERS/CEREMONIES
ROPANI	A MEASUREMENT OF LAND (8 ROPANIS = 1 ACRE APPROX)
RUPEE	NEPALESE CURRENCY (Rs 30 = US$ 1)
SAAGA	OUTDOOR PIT FOR DISPOSAL OF BIODEGRADABLE RUBBISH
SUDENI	TRADITIONAL BIRTH ATTENDANT (NEPALI)
TERAI	THE PLAINS AREA IN THE SOUTH OF NEPAL
TETA	A TOLE IN WARD 6 MAINLY INHABITED BY THE PODE CASTE
TIMUR	A TYPE OF SPICE
TOLE	LANE OR ALLEY
VAIDYA	PRACTITIONER OF AYURVEDIC MEDICINE

NEPALI MONTHS

BAISAKH	MID APRIL TO MID MAY
JESTHA	MID MAY TO MID JUNE
ASHAD (ASAR)	MID JUNE TO MID JULY
SHRAWAN	MID JULY TO MID AUGUST
BHADRA	MID AUGUST TO MID SEPTEMBER
ASHWIN	MID SEPTEMBER TO MID OCTOBER
KARTIK	MID OCTOBER TO MID NOVEMBER
MANGSIR	MID NOVEMBER TO MID DECEMBER
POUSH	MID DECEMBER TO MID JANUARY
MAGH	MID JANUARY TO MID FEBRUARY
FALGUN	MID FEBRUARY TO MID MARCH
CHAITRA	MID MARCH TO MID APRIL

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Childbirth Survey

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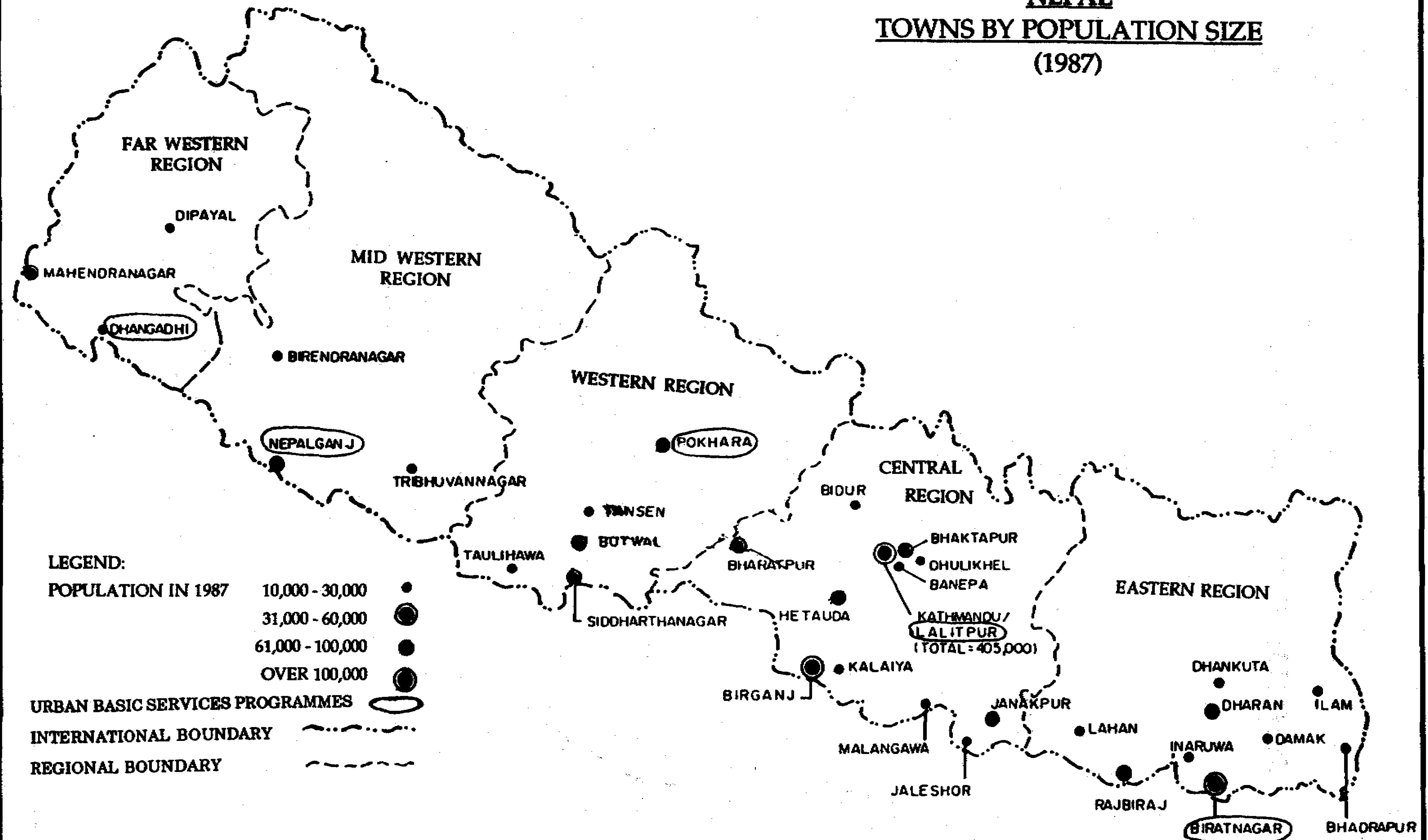
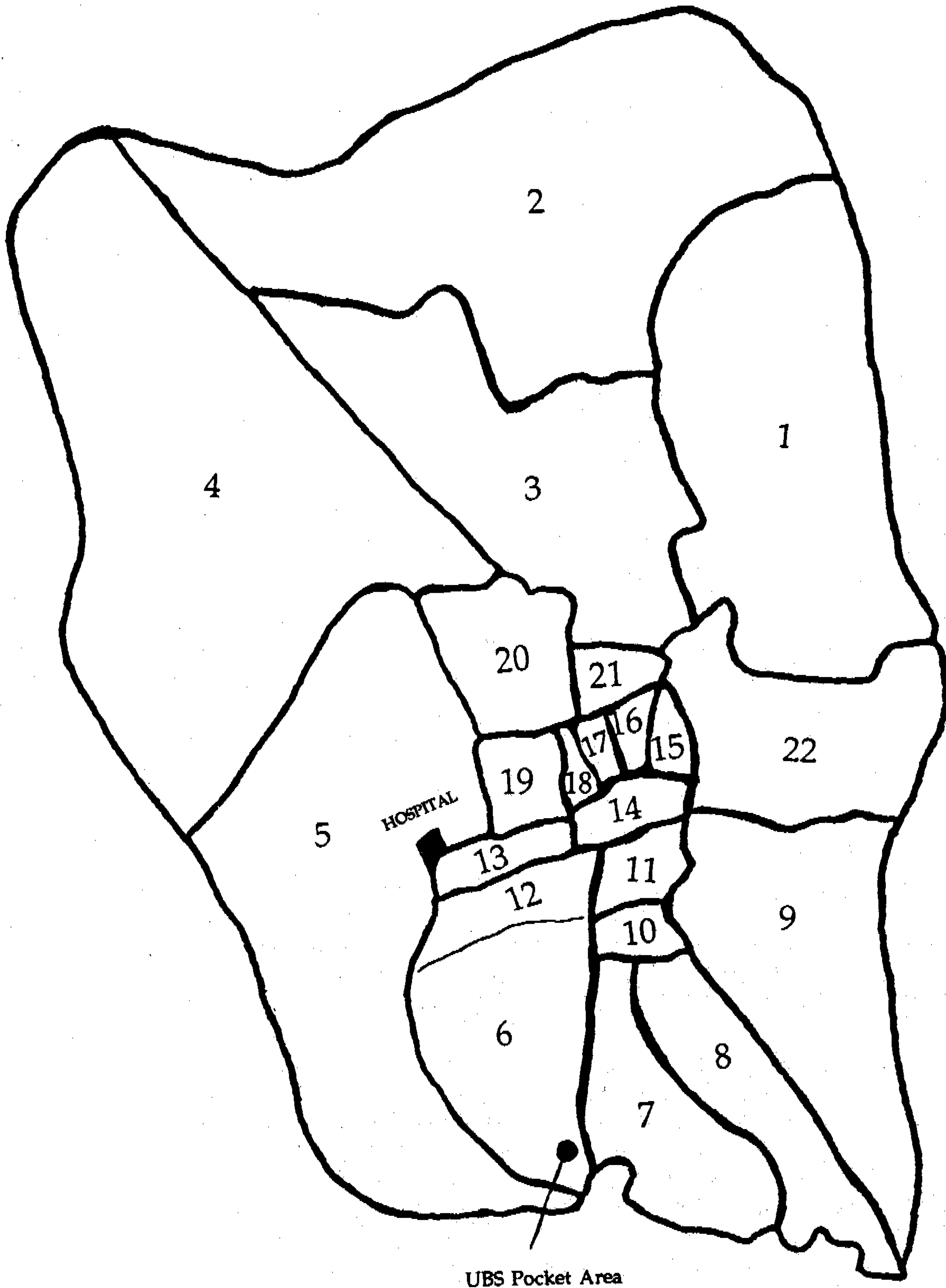

NEPAL
TOWNS BY POPULATION SIZE
(1987)
FAR WESTERN REGION
MID WESTERN REGION
WESTERN REGION
CENTRAL REGION
EASTERN REGION
DIPAYAL
MAHENDRANAGAR
DHANGADHI
BIRENDRANAGAR
NEPALGANJ
TRIBHUVANNAGAR
POKHARA
TANSEN
BUTWAL
TAULIHAWA
SIDDHARTHANAGAR
BHARATPUR
BIDUR
BHAKTAPUR
DHULIKHEL
BANEPA
HETAUDA
KATHMANDU/
LALITPUR
(TOTAL: 405,000)
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

URBAN PATAN (LALITPUR MUNICIPALITY) BY WARD



Source: Courtesy of David Stevens, UMN

CHAPTER 1

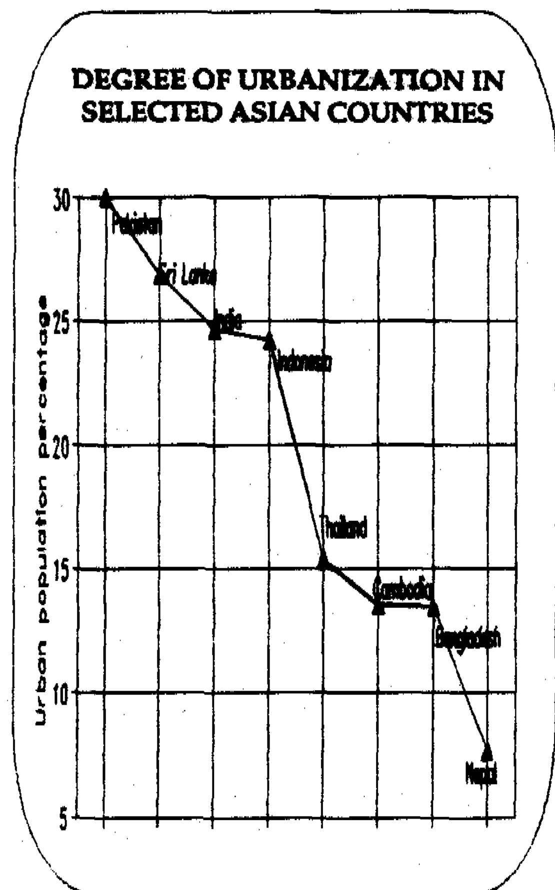
INTRODUCTION AND METHODOLOGY

SECTION 1: INTRODUCTION

Urbanization in Nepal is not currently on the scale of that in most other South Asian countries and, for that reason, conditions are now ideal to lay down proper plans and to implement programmes aimed at improving the condition of the poorest sections of the urban community.

In fact, Nepal is at the lowest end of the scale of urbanization as represented by the percentage of the population living in urban areas as compared to the total population. Although the urban population has grown from 4.0% to 6.38% between 1971 and 1981,[1] and was estimated at 8.2% in 1985/86,[2] this still makes Nepal a predominately rural country as compared to the other South Asian countries. Bangladesh has an urban population of almost 15%, India has around 25%, Sri Lanka and Pakistan about 30%.[3] It is estimated, however, that 50% of the urban population in Nepal is living below the poverty line. Globally, rapid urbanization is acknowledged to be one of the most pressing issues of the century. With the urban population estimated at 3.1 billion by the year 2000 - this will amount to 44% of the world's population.

FIGURE 1



Adapted from: Urban Basic Services, Input, UNICEF, Thailand 1987

However, contrary to what is normally supposed, most of the growth will be due to natural increase as a result of continuing high fertility rather than to migration.

---

1 Central Bureau of Statistics, quoted in the Seventh Plan.

2 Seventh Five Year Plan, HMG/N p227.

3 INPUT, UNICEF 1987. Special Issue on Urban Basic Services.

Amongst the urban poor the most disadvantaged group will be women headed households, of which there are estimated to be 30% worldwide. There are critical times ahead for the women and children in urban areas 'who will largely not benefit from the amenities, services and economic opportunities that urban areas have to offer. They will be struggling for survival' (Donohue in Harpham et al 1988, p12). Although the cities benefit from more resource provision it is the middle and upper income inhabitants that manage to ensure that government policies most favour their needs. (Moser and Satterwaite in Harpham et al, 1988, p15).

There are numerous theoretical explanations for the problem of urban poverty. The one that has gained widest acceptance is the structural interpretation which argues that poverty is the result of a particular kind of economic development and the interrelation between high rates of population growth, capital intensive development and a crisis in the agricultural sector which leads to labour force marginalisation. However, the urban poor, far from being a drain on the city's resources, are often essential to its continued prosperity, providing, as they do, essential services and a pool of cheap labour.

The government's policy on urbanization, as articulated in the Seventh Plan, is to try to reduce the pressure on urban facilities caused by the pace of urban growth. In 1984/85 there were 29 towns (those with populations of over 9,000 people) of which Lalitpur was the third largest with a population, in 1981, of 79,875. The annual growth rate in Lalitpur in the same year was 3.1%, which is relatively small (Birgunj in the same year had a 12.87% increase and Janakpur was next with 9.3%). It is estimated that Lalitpur's population in the year 2000 will be about 132,000 and that overall the urban population will increase at the rate of 8.5%. This compares to an annual growth rate of 2.7% for the country.

TABLE 1. NEPAL'S FIVE LARGEST TOWNS (1981 CENSUS FIGURES)

TOWN	REGION	POPULATION
Kathmandu	Central Region	235,160
Biratnagar	Eastern Region	93,544
Lalitpur	Central Region	79,875
Bhaktapur	Central Region	48,472
Pokhara	Western Region	46,642

Source: Population Monograph of Nepal, 1987

In 1981 ward No. 6 (which incorporates the pocket area) had a population density of 57 persons per hectare (compared to 800 for wards 14 and 17). It is therefore not a seriously crowded area and, being on the urban fringe, there is space for expansion. Although urbanization is not on the same scale as elsewhere, Nepal still faces huge problems. Only Kathmandu has a organised sewerage system and the development of a road network has led to an enormous increase in vehicle density which is posing another environmental and health hazard to the urban population. A number of areas were identified for UBS in Lalitpur but eventually the pilot areas in Ward 6 were chosen for the first phase.

UNICEF, in about 40 countries of the world, has already implemented Urban Basic Service Programmes, which have been designed to address the needs of the urban poor. In some of these countries UNICEF has already moved towards national coverage of urban basic services (in India, Indonesia and Sri Lanka), in others however UNICEF is only beginning to respond to the problem of urban poverty. UNICEF (Nepal) recognised the need to address the growing problems of the urban poor and began to devise, in association with His Majesty's Government, a situation analysis of the poor in urban areas, focusing particularly on women and children.

While Nepal does not suffer the same level of urbanization as most S. Asian countries the situation is expected to change and by the end of the century the rate of urban growth is expected to double. Five towns have been selected for Urban Basic Services programmes in Nepal, in each of the development regions. The first phase of the programme is to be implemented in Lalitpur and it is there that pilot studies and pilot programmes will be tested to see how far, with modification, they can be replicated elsewhere. To this end, UNICEF commissioned a study with the basic aim to provide baseline data, qualitative data and a community profile so that programme design can be tailored to the needs of the people and so that the data can be used for future evaluation. The pilot programme is to be set up in a pocket area of Lalitpur Ward No. 6, and further projects will be established in one town in each of the other four development regions between 1990 and 1994. Other towns to be targeted are Biratnagar (East), Pokhara (West), Nepalgunj (Mid West) and Dhanghadi (Far West).

A seminar on major national urban policy issues noted deficiencies in urban provision throughout Nepal. The major features highlighted were lack of safe water provision, lack of adequate drainage, poor excreta disposal systems and the increasing shortage of shelter provision in Kathmandu and Lalitpur. An informal network also now exists in Nepal to bring together individuals and organisations which are interested in urban development issues. Problem identification is well underway but implementation and coordination are noted to be particularly difficult until the role of the municipalities is clarified.

TABLE 2. COMPARATIVE SERVICE DELIVERY DEFICITS

Town	Pop.Density p/ha	Population not served by		
		Safe water supply	Human Waste Disposal	Drainage
Lalitpur	150	7.7%	76.0%	85.0%
Nepalgunj	203	72.2%	52.0%	100.0%
Dhangadi	100	53.0%	79.0%	100.0%

Source: Analysis of Municipal Service Standards in Eight Town Panchayats, MSTP, PADCO Inc, 1986 quoted in 'Major National Urban Policy Issues, Nepal,' M.B. Mathema and J.J. Joshi.

IMPLEMENTING AGENCIES OF THE URBAN BASIC SERVICES PROGRAMME

Nationally the programme is under the overall control of the Urban Development Division of the Ministry of Local Development (formerly MPLD). Other line ministries will be involved as required.

At town level the Urban Basic Services Coordination committee was previously headed by the Pradhan Pancha, with the Pradhan Adhikrit acting as the programme coordinator. Now the programme is under the overall control of the Executive Secretary (formerly the Pradhan Adhikrit). The municipal authorities will call meetings of relevant agencies every month to report on progress. Members of the committee will include the solid waste management authorities, the relevant ward chairman, the District Education officer and so on (see note below).

At the community level the main focus will be the users' committee which will have responsibility for enhancing the community's problem solving capacity and for working out participatory development plans. The users' committee is the most important unit for ensuring the effectiveness of the community based components of the programme. The community organiser will be the key contact to liaise between the community and the municipal and central government authorities. Ideally, the community and the municipality might be able to identify some suitable women candidates for community organiser posts. This may help to ensure that priorities identified by women are incorporated into the planning process as, in most areas, women are either reluctant, or have no time, to participate in community meetings.

Note: The implementing agencies could change in 1990/1991. The role of the municipalities will be clarified after constitutional and electoral reform has taken place.

SECTION 2: BACKGROUND TO THE STUDY

In designing this study a desk study was undertaken to review the existing literature on the Urban Basic Services programmes in other countries and to learn from their experiences. Materials generated by the UBS programmes in India have been particularly useful and their helpfulness is acknowledged here.

The purpose of the study was not only to generate data on the basis of which a programme can be designed, it was developed in such a way that it can be replicated, with only minor modifications, throughout Nepal and has been designed so that key indicators can be used to evaluate the impact of the programme in the future.

UNICEF has designed guidelines[4] to operationalise the UBS programme in consultation with the Ministry authorities. The guidelines are based on UNICEF's Master Plan of Operations 1988-1992, and were designed in the context of the Nepalese government's Basic Needs policies, the Seventh Five Year Plan and the recent 'Situation Analysis of Women and Children in Nepal' produced by UNICEF. These guidelines were used to design the framework for the study in accordance with UNICEF's priorities and to see ultimately how far these match the priorities of the target group.

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, particularly children and women. Taking account of the objectives of the programme, the study was designed to generate data of relevance to the objectives.

To take each objective separately:

- To reduce the morbidity and mortality rates of children. The study collected quantitative data about child morbidity and data on child mortality for each women respondent. Data was also collected on awareness of interventions such as immunisation and oral rehydration solution and choices in health care.

- To develop the children's learning potential through improved access to education and other basic services. Data was collected on school attendance and literacy rates for each child of school age.

[4] Guidelines to Operationalise the Urban Basic Services Programme of Cooperation between HMG/N and UNICEF.

- To prevent childhood disability and promote the rehabilitation of children within the community. Data was collected on the rate of disability, the most common sorts of disability and current awareness or use of services.

- To enhance the awareness and ability of the urban poor to recognise their own needs, particularly those of women and children. Data was collected on current awareness of the services available, and perception of community problems in a gender specific manner.

- To improve the capacity of the town authorities and related NGO's to effectively launch and manage specific programmes for the urban poor. From the beginning of the study the town authorities were consulted and their help was enlisted in obtaining cooperation. NGO's were also consulted to see what programmes were already underway and to incorporate their priorities into the study design.

The key principles of the UBS were also taken into consideration during the study, most particularly that of community participation and convergence of services. As a part of the study was also to collect qualitative data particular emphasis was put on priority areas identified through the baseline survey. These were environmental sanitation, (including solid waste management), low income, education for certain groups, and health (particularly child health).

Although it was very time consuming it was felt necessary to interview a female respondent in each household as a major component of the programme is to develop women's economic, educational and income generating capacity. It was felt that asking men about these areas would give biased data and women, as the main carers of the family, should also provide the information on child health and knowledge of health interventions. This effectively doubled the amount of time needed for data collection but ultimately, gave a gender specific perspective and identified women who could most effectively take part in focus group discussions.

Women identified through the survey as either being pregnant, or having had a baby in the last year were asked to participate in a study on childbirth. Traditional birth attendants identified by these women were then also interviewed individually. The questionnaires and interview guidelines for the childbirth study have not been included for reasons of space but they are available for any organisation or individual to consult.

(See Appendix A for questionnaire details)

SECTION 3: RESEARCH METHODOLOGY

To ensure that the programme will be designed in a way most appropriate to the needs of the country UNICEF (Nepal) commissioned a study of the pocket area in Lalitpur where the programme will start. This study was designed to produce baseline survey data, knowledge, attitudes and practices information and other data of a qualitative nature generated by focus group discussions and key person interviews.

The main techniques used were a structured questionnaire survey of a male and female respondent in 70% (156 households) of all households in the pocket area, a modified survey in the remaining households so that key data could be collected for the whole area, focus group discussions with influencers and users to cover the areas of sanitation and solid waste, education, health and childbirth, key person interviews and data collected through interviewer observation.

In the majority of cases the female respondent was the wife of the household head (73.7%), 10.9% were the mother of the household head, 7.7% were the daughter-in-law and the remainder were other relatives. For the male respondents whoever was thought to be the household head by the household members was interviewed. In addition the area was mapped to locate the main water sources, open space toilets and facilities available.

There is a wealth of literature on social sciences methodology and community participation, much of this highlights the alienating process of such research and points out the potential for error when interviews are conducted across cultural and linguistic barriers. Taking account of some of these criticisms was implicit in the planning of the study and some attempt was made to overcome the more obvious problems by the following means:

i) Using interviewers from the same cultural and linguistic background as the interviewees. All the female interviewers were Newari and a Newari interpreter was available for male interviews if necessary.

ii) Questionnaires were translated and pre-tested in Nepali and Newari and obvious problems ironed out prior to the main survey.

iii) The needs assessment was designed with the intention of making each person interviewed feel as though they had the opportunity to give their own personal view about development priorities. For this reason it was decided to interview a female respondent in each household as it was expected that there would be differences in priorities, knowledge, attitudes and practices.

iv) The community was consulted prior to the survey and their cooperation sought through formal and informal channels. The ward authorities,

community organiser and community members all helped in this process. It was guaranteed that the results of the survey will be fed back to those interested through a meeting when the results are available.

v) In accordance with accepted wisdom about the sustainability of programmes, information was sought to elicit how existing services and structures could be upgraded rather than to concentrate on building up expensive, and ultimately unsustainable, parallel structures.

vi) The main responsibility for the implementation phase will fall upon the community and local authorities. Guidance will come from other professionals. For this reason information was sought from each respondent about their own view of who was influential and respected in their community.

vii) The community organizer was involved at all stages, as were the ward authorities as they will ultimately be the service providers and users most closely involved with this programme. This structure also ensures that the community will eventually 'own' the programme and will ultimately control it's direction, with necessary government support.

These guidelines were evolved after consultation with concerned bodies and taking into account UNICEF and UNCRD policy statements on successful management styles in urban settings.[5]

[5] 'Expert Group Meeting on Policy Issues in Urban Services for the Poor.' UNCRD, 1985.

SECTION 4: LIMITATIONS OF THE STUDY

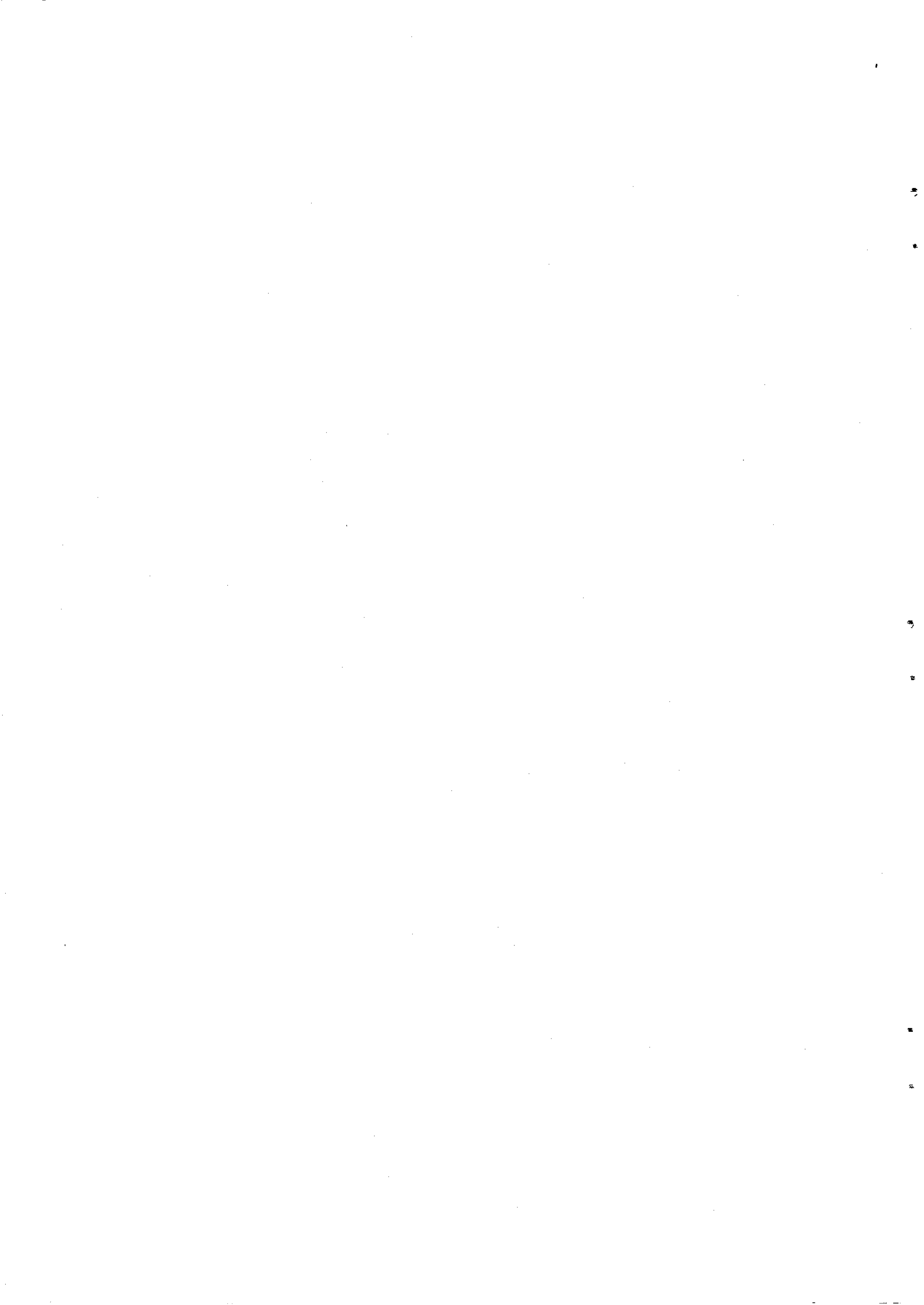
The main limitation was that the scope of the study was very broad and no one subject could be covered in depth otherwise the questionnaires would have been too long. On reflection it was felt that too much time was spent on collecting baseline data while more useful information from UNICEF's point of view was generated through qualitative means - direct observation, key person interviews and focus group discussions. The baseline data is useful to give quantitative indicators for future evaluation but a smaller sample is probably adequate to generate this data.

As Ramesh Shrestha has noted 'the very concept of a questionnaire is the product of a literate culture'.[6] Questionnaires have great potential for being misunderstood by the respondent and sometimes by the interviewer. There is also the tendency to give replies that might be expected to please the interviewer. Therefore the questionnaire data can be fairly accurate for hard facts - such as demographic data and the presence or not of physical facilities but should be treated more circumspectly for attitudinal information on current practices. Focus group discussions help to confirm or deny subjects that have been covered in the questionnaire and although this data cannot be quantified there is a better indication of what people actually do in practice.

The limitations were somewhat mitigated by combining sociological and anthropological methods and opportunities were taken, wherever possible, to collect information through direct observation, informal discussion as well as by the more structured tool of the questionnaire. Questionnaires are useful to collect baseline statistical information but are seriously limited in that non-literate people often feel very uncomfortable with this method. Unfortunately the length of time allocated, and the political situation, meant that time available for real participant observation was limited. The study would have been enhanced if this could have been undertaken over a longer time frame.

This area is very active politically as it is home for many of the groups which now make up the United Left Front. Therefore, the events of February - May 1990 inevitably affected the flow of the study and it was impossible to follow the original time frame. The remaining focus group interviews had to be conducted in May/June rather than February/March as planned.

6 Ramesh Shrestha quoted in Lohani and Guhr - Alternative Sanitation in Bhaktapur, Nepal (see bibliography for full reference).



CHAPTER 2

COMMUNITY PROFILE

SECTION 1. THE PHYSICAL ENVIRONMENT

The area chosen by the town authorities and UNICEF has been designated as the pilot "pocket area" in which to start this programme. Pocket areas of poor urban households were identified throughout Lalitpur (see list below) and eventually the two areas in ward no. 6 were chosen to be the first areas for programme implementation. The pocket areas in ward 20 were used for the pre-test.

TABLE 3. HMG/UNICEF PROSPECTIVE POCKET AREAS - LALITPUR

Area Number	Ward No.	Caste/Ethnic group	No. of households (estimate)
1	6	Sweeper	27
2	6	Farmer	200
3	7	Sweeper	8
4	12	Farmer/Butcher	60
5	13	Farmer	10
6	19	Butcher	15
7	10	Not specified	15
8	9	Not specified	12
9	20	Sweeper	20
10	20	Butcher	26
11	9	Farmer/Butcher	215
12	22	Sweeper/Butcher	57

Source: Heinz Boeni,UNICEF, December 1989

The ward 6 pocket area is primarily made up farmer households with a clearly defined and separated area of Podes (sweepers). The area lies to the east of Mangal Bazar with boundaries running along Lower Lukushi, Teta Tole, the Ring Road and Tyagal (which borders ward 7). Of the respondents in the survey 73.5% came from Lukushi Tole, 12.9% from Hak Tole, 9.7% from Teta Tole and 3.9% from Tyagal.

The area has been mapped by HMG and UNICEF and some further detail was added by the survey team. An environmental sanitation walk added detail about specific areas where solid waste accumulates, open space toilets, water sources and centres of community activity. All the wells were also surveyed and information on this is found in the water and sanitation section.

The buildings and environment are typical of a poor urban area. The buildings are crowded, often arranged around a chowk (courtyard). Some features traditional to farming Newari households are found. Some chowks have a shared saaga (the outside area where rubbish for compost is placed) and many houses have their own private saaga at the rear of the ground floor. The houses are mainly of a permanent nature with fired brick structures and corrugated iron or tiled roofs. They are universally dark in the interior. Another feature common to Newari farmer households is the nauga, found on the ground floor, under the stairs. This is used for ash disposal, urinating at night (in households with no toilet) and other household rubbish disposal.

HOUSING

Generally speaking the standard of housing is reasonable but some areas are in particular need of renovation. The majority of houses are built of fired brick and only ten of all the houses are constucted from what would be classified as "temporary" materials - mud and wood. All roofing was probably adequate for protection of the building with thatch now hardly used at all. A major design fault, however, is the absence of any drainage or guttering but this is hardly surprising as there is no system to cope with run-off. As is commonly observed in any Newari urban area the houses are generally of three of four stories and are quite narrow. The interiors of the houses are quite dark and in most houses there is no area that is set aside as a 'living area'. The rooms are all either used for sleeping, cooking and other activities.

Most of the houses follow traditional Newari design concepts being vertically orientated for security and to minimise the area of land given over to building purposes. The chowk provided additional security and privacy and there are quite strict rules of rights of access to individual houses or chowks. The ventilation and lighting within the houses is so uniformally poor that the chowk or outside area in the tole becomes important for the activities of daily living 'it is ... a playground for children, a washing area, a grain grinding area and provides an area for sitting .. in the warmth' (p12 Korn, W. The Traditional Architecture of the Kathmandu Valley, 1989). The use of space and traditional activities which take place in certain areas are important to note for programme implementation as it is better to upgrade facilities already in use than to create new and artificial areas which may not be utilised.

Within the houses, as in former times, the ground floor area is not used for living activities primarily because of dampness. This means that the ground floors are normally used for waste disposal or siting of toilets. A living area may be found on the first or second floors and generally these are lighter than the lower stories. From observation, however, it seemed that houses were generally so crowded that this living area was also used for sleeping.

The houses in the Pode area have fewer storeys (in accordance with historical prohibitions on building above the ground floor) but commonly have at least one storey. The roofing and general upkeep of the houses in this area is poorer than in the farmers' area.

PHYSICAL FACILITIES

The area has some places where people naturally congregate and life is lived very much in public. Household chores are done in the sun outside the house as are income generating activities. There are libraries and temples in the area all of which serve as meeting points. One popular spot for the many underemployed youths in the area is a communal table tennis board which was erected over a disused well.

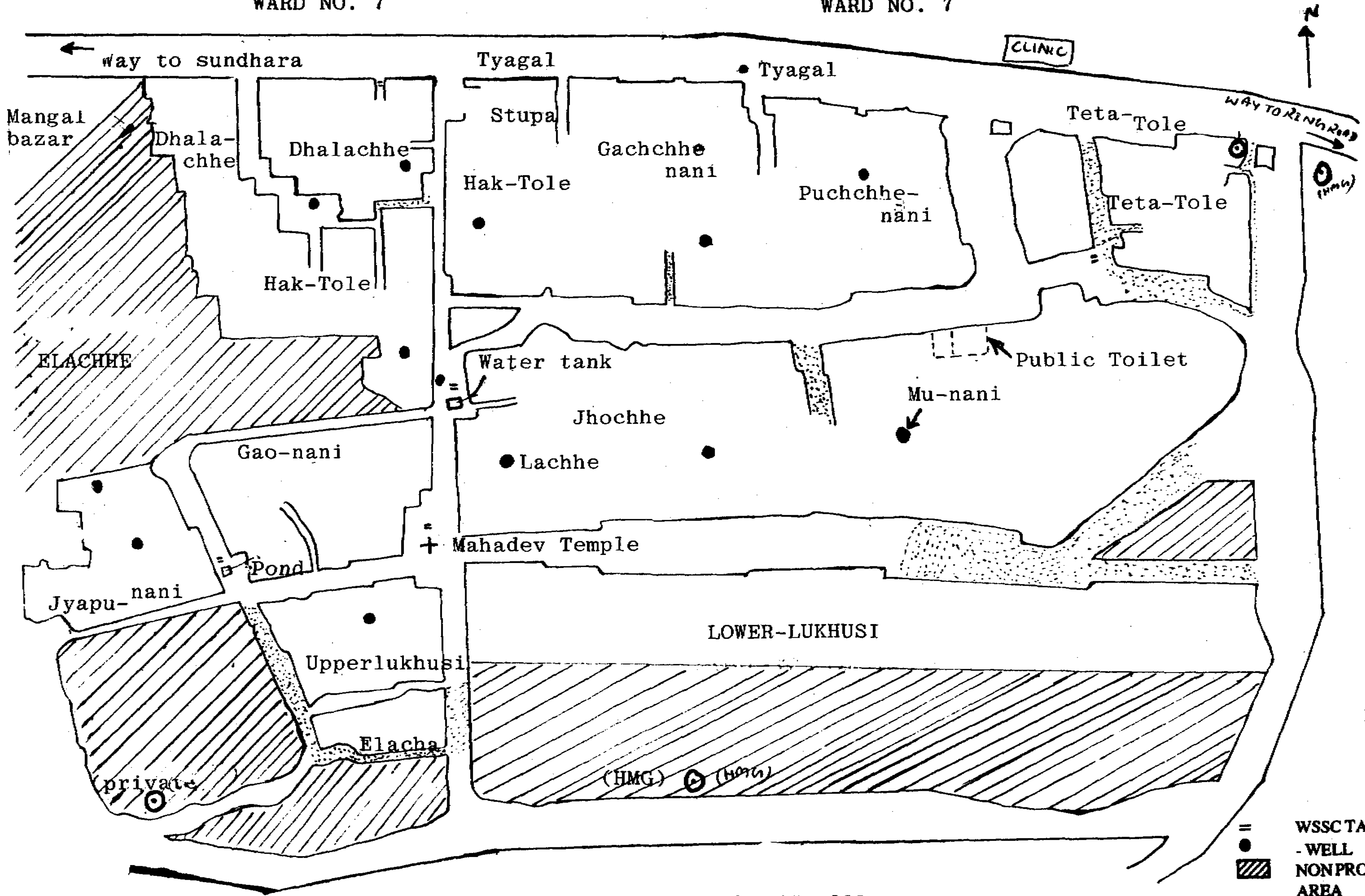
Throughout this report the area of Teta will be treated separately. It is not assimilated with the other pocket area and sweepers are uniformly looked down on by people of the farmer area. In accordance with ancient spatial arrangements the Pode community is on the margins of the town and is not visited by people of other castes.

The closest school, in ward 7, is attended by the majority of the children in this area (except for the sweepers). A good health clinic is located in Tyagal and there is another one at Thaapati. The hospital in Laghankhel is only about ten minutes walk away. It is not, however, used much by people from this area for reasons which will be discussed. There are some pharmacy shops and ayurvedic practices all close to the pocket area.

Communal water supplies are available in the form of stand taps, wells and stone taps. They serve as important meeting places for women who spend a considerable part of the day either collecting water or performing their household tasks around these facilities.

Some of the unpaved lanes are used as rubbish disposal sites or as open toilets causing an unsanitary environment in certain parts of the area. The communal toilet close to Teta Tole is still used by the women of the Tole but is in an appalling condition.

While the physical environment has definite shortcomings the social environment is relatively stable and the overall picture is of a naturally homogenous, settled population, not yet subject to migration pressures from outside but much susceptible to the problems of natural growth, poverty and urban decay.



LALITPUR UBS POCKET AREA WARD NO. 6

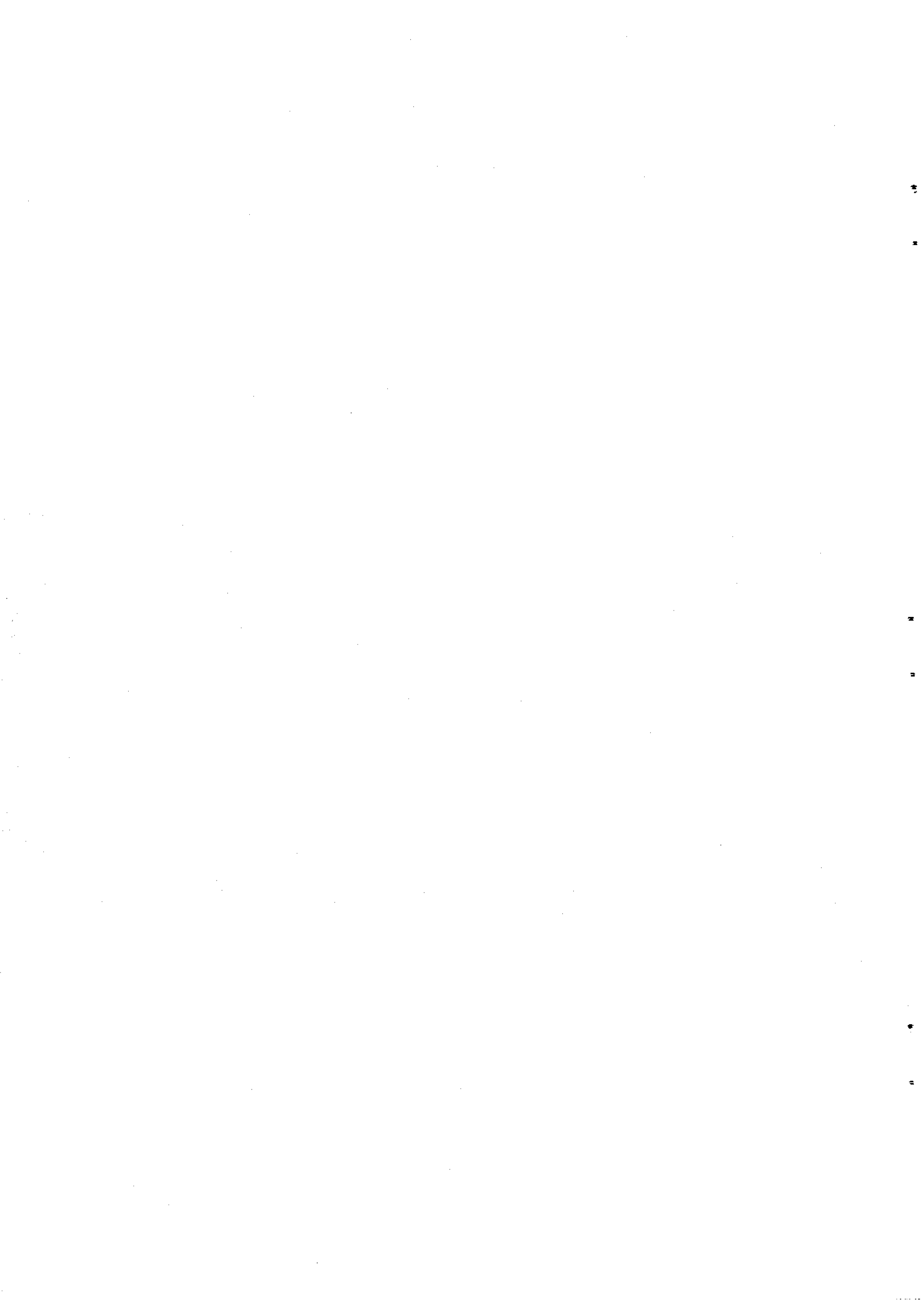
PHYSICAL ENVIRONMENT

CONTRAST BETWEEN OLD NEW HOUSING - WARD 6

REAR VIEW OF TYPICAL NEWARI HOUSING

A WELL IN A WARD 6 <u>CHOWK</u>. COURTYARDS ARE IMPORTANT - SOCIALLY, PRACTICALLY AND FOR RITUAL REASONS

TABLE TENNIS BOARD ERECTED OVER A DISUSED WELL - AN IMPORTANT MEETING & RECREATIONAL AREA FOR THE YOUNG PEOPLE.



SECTION 2. DEMOGRAPHIC CHARACTERISTICS

The area surveyed is a very settled urban community, 94.2% of respondents gave the reply that they were living in their ancestral home. Ethnically the area is very homogenous. The majority of people are Newari mostly belonging to the farmer caste (Maharjans), there is a pocket of Podes (sweepers) and the only other groups present, in very small numbers, are Limbu and Brahmin. Within the Newari group, in this area, apart from Maharjans there are also some Shrestas, Dangols, Shakyas and Kapalis. The Kapalis are an untouchable caste whose traditional occupation is to dance at Newari festivals. This makes some parts of programme implementation easier, it is only necessary to understand Newari social organisation and beliefs in any great detail. It has been noted in many areas the difficulty of implementing programmes in socially heterogenous populations as different groups within the programme area may find it difficult to cooperate or will compete for control.

The only major split in this area is between the Maharjan and the Pode groups. However, the group as a whole is economically disadvantaged while not living in absolute poverty. There is no readily identifiable middle class which would dominate. There are, however, important political groupings in this area. This may be of importance in considering how, and through whom, to implement the programme.

Although, of course, Newaris are an ethnic group split into many caste divisions the major make up of the area belongs to the cultivator caste, which is, in ranking terms, relatively low caste.

TABLE 4. CASTE/ETHNIC GROUP COMPOSITION

CASTE/ETHNIC GROUP	PERCENTAGE
Newar - Maharjan	76.39%
Newar - Shresta	7.64%
Newar - Pode	7.64%
Newar - Kapali	1.39%
Newar - Dangol	1.39%
Newar - Shakya	1.39%
Brahmin	0.69%
Other	3.47%

As all subdivisions of Jyapu (cultivator) castes can intermarry it can be assumed that it is a fairly homogenous group. However, the target area cannot be viewed as a single entity as there is a pocket area of Podes who are considered untouchable by the other group. There is no interaction between the two areas,

they are spatially and socially segregated and there is only minimal interaction which is mainly confined to the sweepers' presence in the other area as street cleaners. It is interesting that there is an open space toilet on a main path between the sweepers area and the Maharjan area. This causes a further separation as people are reluctant to use this as a throughway because of its almost total contamination by faeces.

Although the caste system has been abolished by legislation it is clear that society in this area is still hierarchically structured following traditional criteria:-

ritually	the concept of pollution separates ritually pure and ritually impure groups with the Brahmins at the top and Podes and other 'untouchable' castes at the bottom.
socially	members of the community create social distance according to their ranking in the caste hierarchy.
economically	socio-economic differentiation results from socio-ritual differentiation based on access to land. Without access to land the lower caste groups are dependent in a service relationship with the higher caste groups.
educationally	educational status is closely related to religion and caste and better education tends to be a prerogative of the higher caste groups. It is only through better education that better jobs are obtained.
politically	The other criteria dictate access to political power. In the Bhaktapur study on Alternative Sanitation it was noted that the higher caste groups comprised 80% of the then Nagar Panchayat.[7]

Judged by these criteria the Pode community are disadvantaged even today. Their access to education is limited because of their socio-ritual position and their economic status is constrained both by education and by their hereditary occupational status. All of these factors need to be taken into consideration in programme planning and, while not condoning these constraints, it has to be accepted that it may be difficult to achieve community consensus across these caste divisions.

7 Adapted in full from 'Communication and Development', Dr. Erika Moser-Schmitt quoted in 'Alternative Sanitation in Bhaktapur, Nepal.'

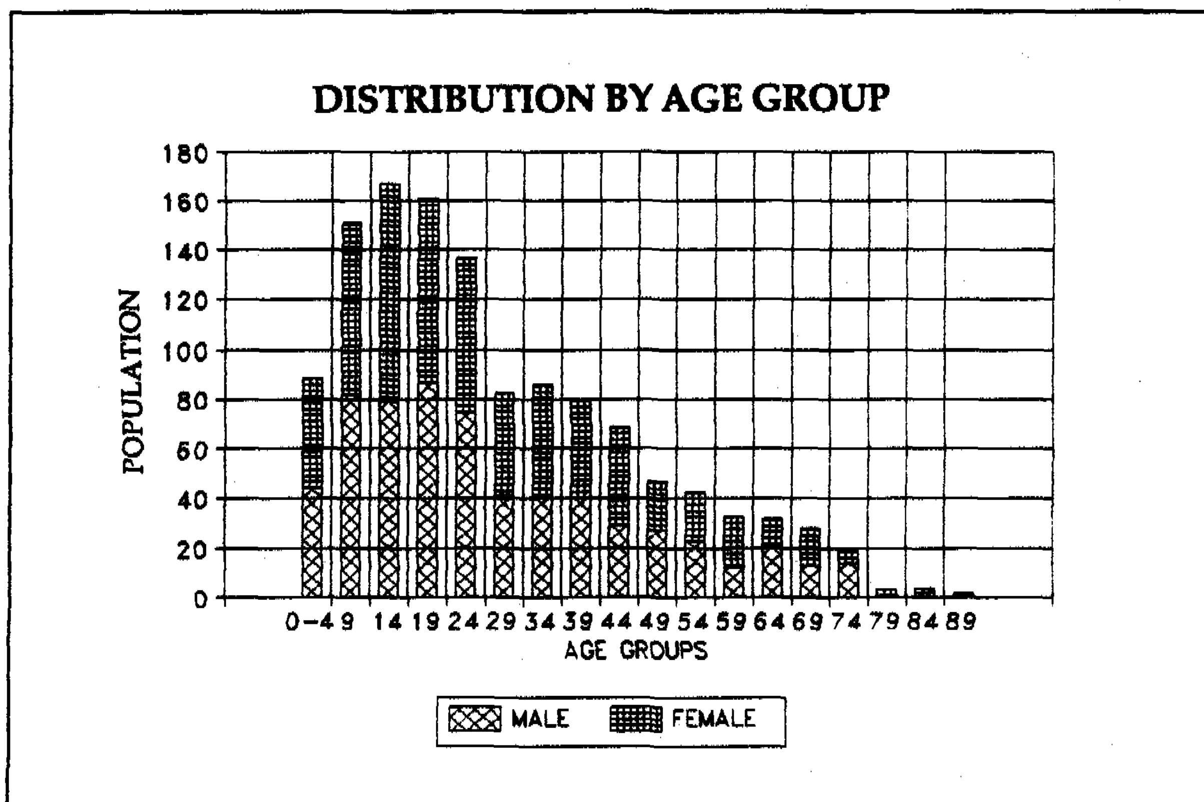
DEMOGRAPHIC PROFILE

The high proportion of young people in this community places a severe economic burden upon the older members. The rate of under 20s in this community is 46% and, while not as dramatic as the 64% figure for an urban area in Manila, it is still higher than better off urban areas in Kathmandu.

The population pyramid in this area largely reflects that of the country as a whole with a heavy weighting in the under 15 year age groups. It should be noted that in a largely illiterate population, age reporting, particularly amongst females, may be inaccurate and, at higher ages, people may exaggerate their age to enhance their status within the community.[8]

One interesting feature, however, is that there are more children in the 5-9 group than in the 0-4 year group. This is a trend that has been noted following the last census and could indicate a decline in fertility in the area.

FIGURE 2



Of interest to UNICEF will be the breakdown of the under five year group. In the study area there are 89 children in this age group. Thirty of these are babies under the age of one year.

8 Population Monograph of Nepal, 1987. Central Bureau of Statistics.

A question about infant and child mortality elicited the stark fact that 42.3% of the female respondents had lost a child through illness. No actual rates were worked out as this would require a fairly sophisticated analysis and is meaningless for such a small sample (Andy Sloggett, SCF UK, personal communication). For this reason, while it can be suspected that mortality rates are about the same as the national average, there is no hard data to prove or disprove this supposition. It is clear, however, from discussion that child mortality is a major concern for women in the area.

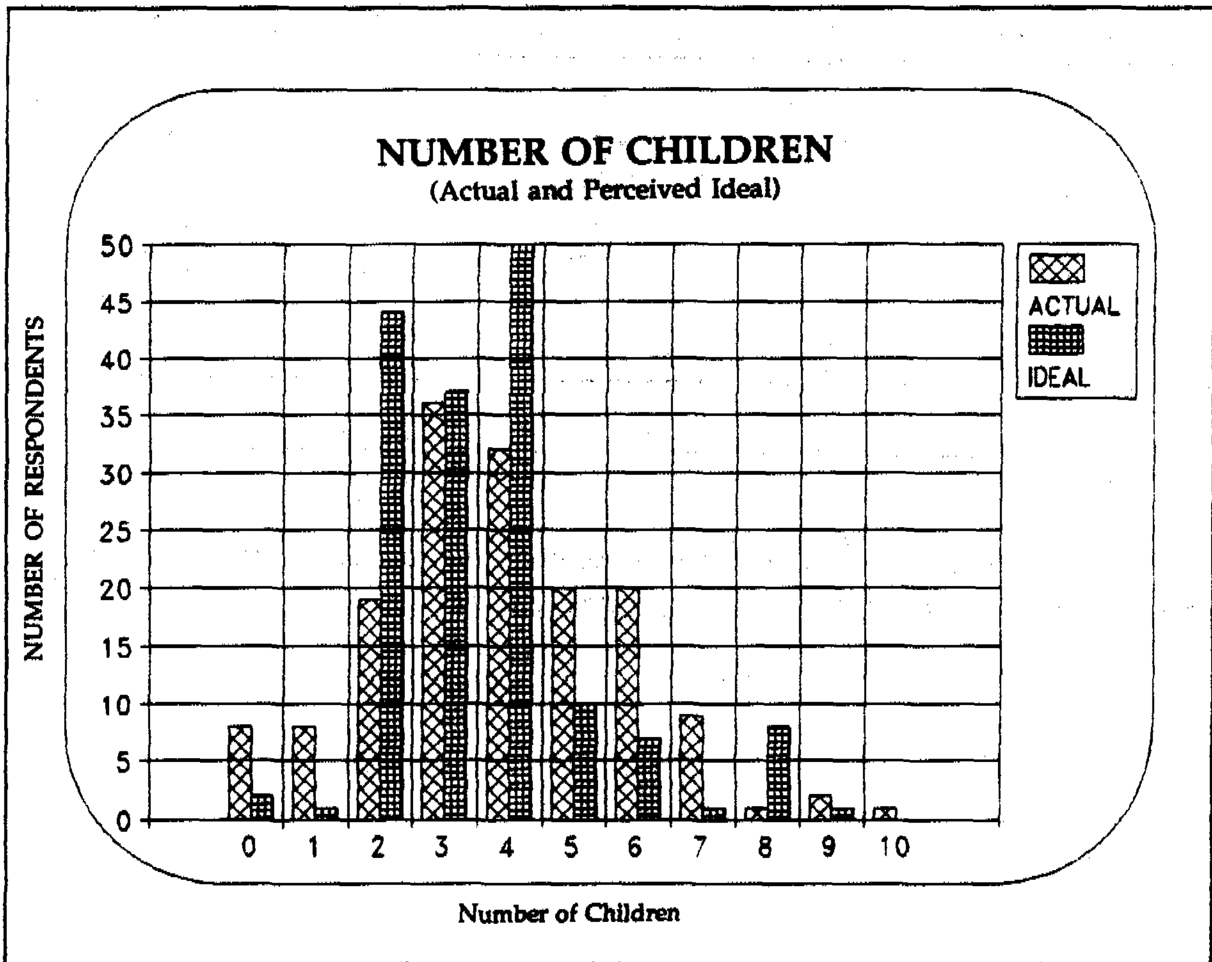
The age at marriage was also ascertained as a higher mean age at marriage can have a significant effect on fertility rates and, consequently, on child survival. The majority of women marry between the ages of 17-22 in line with the urban average. However, 28.1% had married below the age of sixteen. Of these six respondents (3.9%) had married below the age of ten. Marriage at this young age was formerly relatively common in Newari communities although the bride often remained in her maternal home for some years. This practice is slowly dying out and as it is also possible that some respondents mentioned the date of the so-called Bel fruit marriage as the date of their actual marriage, this data should be treated cautiously. Overall men marry at higher ages with 56.6% marrying at between 17-22 years and 24.3% between 23-29 years.

TABLE 5. RESPONDENTS' LITERACY BY TOTAL NUMBER OF CHILDREN

NUMBER OF CHILDREN	0	1	2	3	4	5	6	7	8	9	10	Row Total
Literate	4	3	5	4	2	1	1	1	0	0	0	21 13.5
Illiterate	4	5	14	32	30	19	19	8	1	2	1	135 86.5
Column Total Percentage	8 5.1	8 5.1	19 12.2	36 23.1	32 20.5	20 12.8	20 12.8	9 5.8	1 0.6	2 1.3	0 0.6	156 100.0

Questions were asked in the survey about the actual number and ideal number of children. It can be clear that there is a desire to have smaller families with the majority of respondents wanting 3-4 children. The families in Teta tend to have more children. This is perhaps a reflection of the lower age at marriage and the generally poor educational status of the group. The average number of children in this area was 5.42 which is higher than the average for the area as a whole.

FIGURE 3



Male and female expectations about ideal family size are fairly evenly matched with a slight inclination for women to want bigger families. There is a positive correlation between actual family size and literacy, with literate females having fewer children - an average of 2.08 per literate woman as opposed to an average of 4.07 per illiterate woman. This shows, once again, that one of the most significant steps towards the reduction of female fertility is to improve access to literacy and education.

Gender breakdown

As expected all respondents wanted at least one male child with the majority wanting two. In contrast, some families preferred to have no female children with the majority wanting only one.

TABLE 6. GENDER BREAKDOWN OF IDEAL FAMILY SIZE

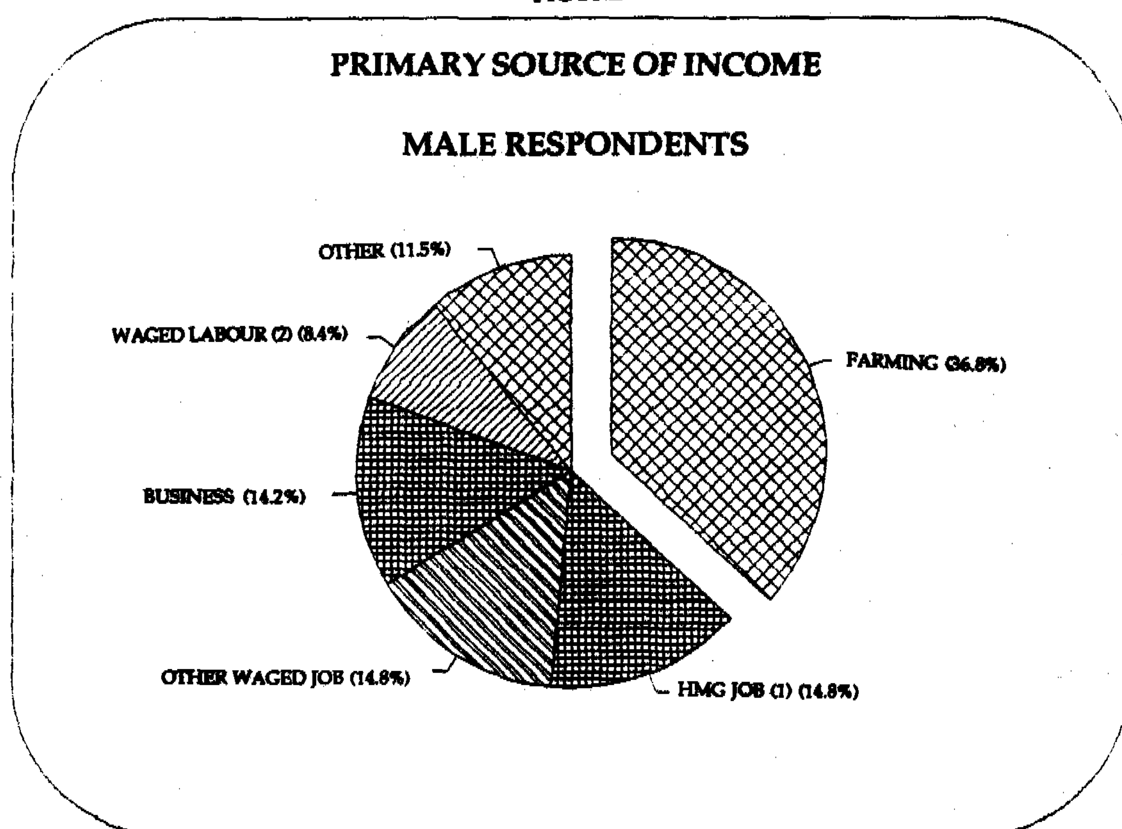
Ideal Numbers	Male Children	Female Children
0	0.0%	3.2%
1	29.7%	57.6%
2	58.1%	32.2%
3	8.4%	3.2%
4	1.9%	3.2%
5	1.3%	0.6%
6	0.6%	0.0%
Total	100.0%	100.0%

Other data, not illustrated, also shows a correlation between income and family size with lower income families having more children.

SECTION 3: ECONOMIC CONDITIONS

Primary sources of income were determined for all household heads. As expected, farming is still the primary source of income for the majority of male respondents. However, a fairly significant number have some sort of government employment which ranged from teaching to driving jobs. The other major categories are waged employment in a private concern, tailoring, private construction work and handicrafts (particularly metal work) and carpentry. Because of the amount of invisible income derived from the consumption of farming produce the actual amounts earned are relatively low. Of the primary respondents the majority, 53.2% reported earning less than Rs.1000 and only 4% earned more than Rs.3000.

FIGURE 4



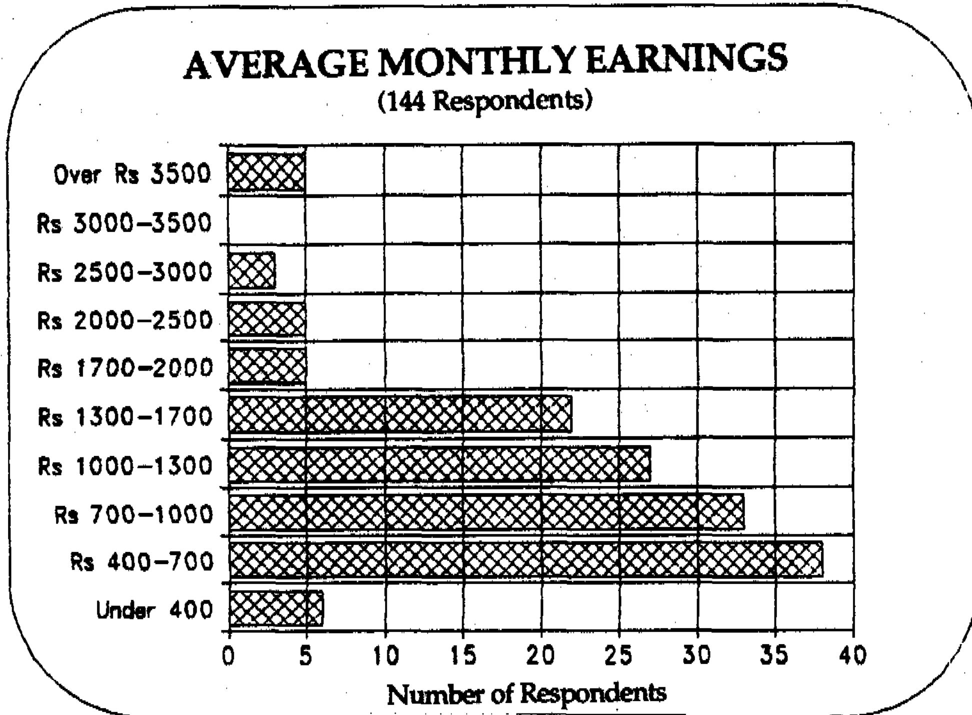
1 Includes sweepers employed by the town authorities
2 Mainly construction workers

In some households there were other contributions to the household purse mainly from another part time job or another wage earner (normally sons and wives).

The majority (57.4%) reported earning the same amount all year but there were times of the year, for the remainder, when income decreased or increased. This varied in accordance with the agricultural seasons with the majority reporting an

increase in income in the autumn and winter, at the time of the main rice harvest, and lower income during the summer - the pre-harvest time.

FIGURE 5



3.1. SECONDARY SOURCES OF INCOME

Forty-nine percent of respondents had no secondary source of income but 22.6% reported farming as a secondary source of income, indicating that they still make use of inherited land while earning their main income through another means. A proportion (9.7%) undertook labouring jobs to earn extra income, of lesser importance were small businesses and pensions.

TABLE 7. OTHER EARNERS IN THE HOUSEHOLD

Other Earner	Percent
None	43.0 %
Son	25.0 %
Daughter	4.9 %
Wife	13.2 %
Son and daughter	4.1 %
Other	9.8 %
Total	100.0 %

3.2. FINANCIAL DECISION MAKING

With regard to money matters the household head was the most usual decision maker. In only 8.3% of households was joint decision making between the husband and wife reported. The pattern was almost the same whether for major items or for day-to-day expenditure.

TABLE 8. DECISION MAKER FOR ECONOMIC EXPENDITURE

Decision Maker	Percent
Household Head	54.9 %
Wife	17.0 %
Joint	8.2 %
Mother	8.2 %
Father	5.5 %
Other relative	6.2 %
Total	100.0 %

3.3. FEMALE ECONOMIC ACTIVITY

Of the women interviewed, 81.9% classified their primary activity as household work with only 10.9% in paid employment. However, 39.7% considered that farming was an important secondary activity with 5.8% having a business as a secondary activity. Of the women in business, the most common activity was sewing while three women ran tea shops and two kept poultry for sale. Observation indicated that a number of home based activities go on throughout the year. In their spare time women also do shawl and rug weaving and make straw shoes. Some younger women work in a nearby carpet factory and there is interest in finding starting capital to establish their own enterprise.

Of the women who do earn money through wage labour, 21.4% give it all to their husband or father, 48.6% keep it for themselves and 30% give a portion of it to their husband or father. Women who have their own money state that they primarily spend it on food (58.5% of respondents), with 11.3% saving the money, 7.5% spending it on travel and 7.5% on clothes. The remainder spent the money on household and other items.

INCOME GENERATION

Of the women respondents 74.4% were interested in some way of augmenting their disposable income. The majority of these - 71.1% wanted to start some sort

of small project so that they could fit income earning into their other activities. The remainder wanted to find a job outside the home.

The most common reason for not having started any activity previously was said to be lack of finance, followed by lack of skill and the burden of child care commitments. Family disapproval was not a significant factor indicating that this group would be receptive to income generating projects.

The most popular type of proposed activity was to start a shop. Skills training (tailoring or weaving) was secondary to this. It is important, however, not to provide incentives to start up businesses in areas in which the market is already saturated. It is likely that many of the proposed activities could fail as any one area can, for example, only support so many tea shops. Experimenting with an approach such as PCRW (Production Credit for Rural Women) in the urban area could be fruitful as this encompasses a wider arena than just simply income generating. Many lessons have also been learned in PCRW about how to avoid overly competitive markets and how to encourage women to provide support to each other rather than always looking to an outside agency.

It has been found in other income generating programmes that women do have good ideas about how to make money and that, with some guidance, they can identify activities which have market potential. Some of the activities traditionally proposed as suitable for women are often in highly competitive trades, such as tailoring, and more research therefore has to be done in order to identify activities which have the best chance of success. In this comparatively ethnically and economically homogenous community there is a lot of potential in the group formation approach.

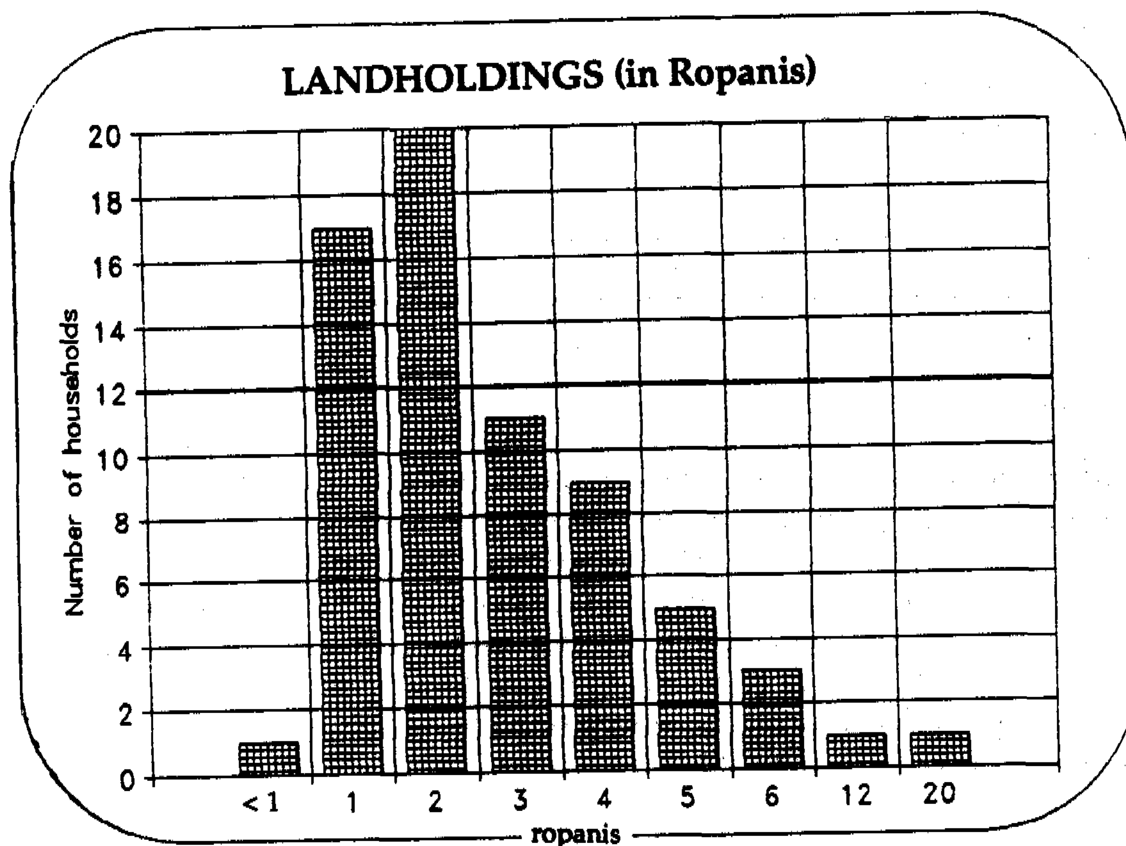
Increasing income is one of the most direct ways to improve socio-economic conditions and subsequently health. Long term effects include reduced fertility and better survival chances for the children as women tend to spend their income on items that benefit the family as a whole - food, education and clothing.

3.4. LANDHOLDING

The majority of respondents were landowners - 53.7% owned land and 46.3% did not. Nearly all the landholdings were in the outer areas of the Ring Road. The Ring Road completely encircles the greater Kathmandu area and while the area within the road is predominately urban, the area outside it (the remainder of the valley), is mainly semi-rural and agrarian. While the farmers may have little disposable income the value of the land they hold (particularly those with over three ropanis) is fairly significant as this is now in prime urban building areas. Some of these landholders also rent out land to others and receive income in the form of patti of rice.

The main crop in 81.5% of cases was rice, 15.4% had their main crop as wheat and 3.1% had corn. Secondary crops included vegetables, beans and potatoes. As the area of study is urban the ownership of animals was relatively uncommon. Some households kept chickens or ducks but only one of the households owned a buffalo and only one owned pigs.

FIGURE 6



3.5. USE OF CREDIT

Of the male respondents 24% had borrowed an amount of money above Rs.200. The primary source of credit was neighbours or friends, followed by office loans, money lenders and banks. The main purpose of borrowing money was to cover household expenses. Other purposes included business, house building and social expenses. Thirty-six people borrowed an average of Rs.9157 although this figure is inflated by three people who borrowed over Rs.20,000. There is an enormous variation in the amount of interest paid ranging from 2-60% with the average being 17.8%. Interestingly, the 60% interest was changed for a loan of only Rs.1600 and there was a large discrepancy in interest paid for the same amount of loan reflecting the source of the credit. Money lenders charged by far the highest interest perhaps reflecting the difficulty in securing loans for the purposes mentioned, particularly household and social expenses.

TABLE 9. SOURCES OF CREDIT

Source	Frequency	Percentage
Family member	4	11.1%
Neighbour/Friend	15	41.7%
Bank	4	11.1%
Moneylender	5	13.9%
Office loan	7	19.4%
Other	1	2.8%
Total	36	100.0%

3.6. FUEL USE

The main fuel used was as expected, crop residues, this is important in a farming community being an economical way to use crop by-products and an important source of fertilizer. The next most common fuel source was kerosene followed by wood. Electricity was used by only 2.1% of households as the primary source of fuel reflecting its relatively high cost compared to other means. However, this data could be unreliable as it was collected during the 89/90 dispute on trade and transit and some fuel sources, i.e. kerosene were difficult to obtain. The pattern may be different at other times.

TABLE 10. FUEL SOURCE

Source	Percent
Agricultural by products	39.3%
Kerosene	33.8%
Wood	20.0%
Dung	4.8%
Electricity	2.1%
Total	100.0%

3.7. EXPENDITURE PATTERNS

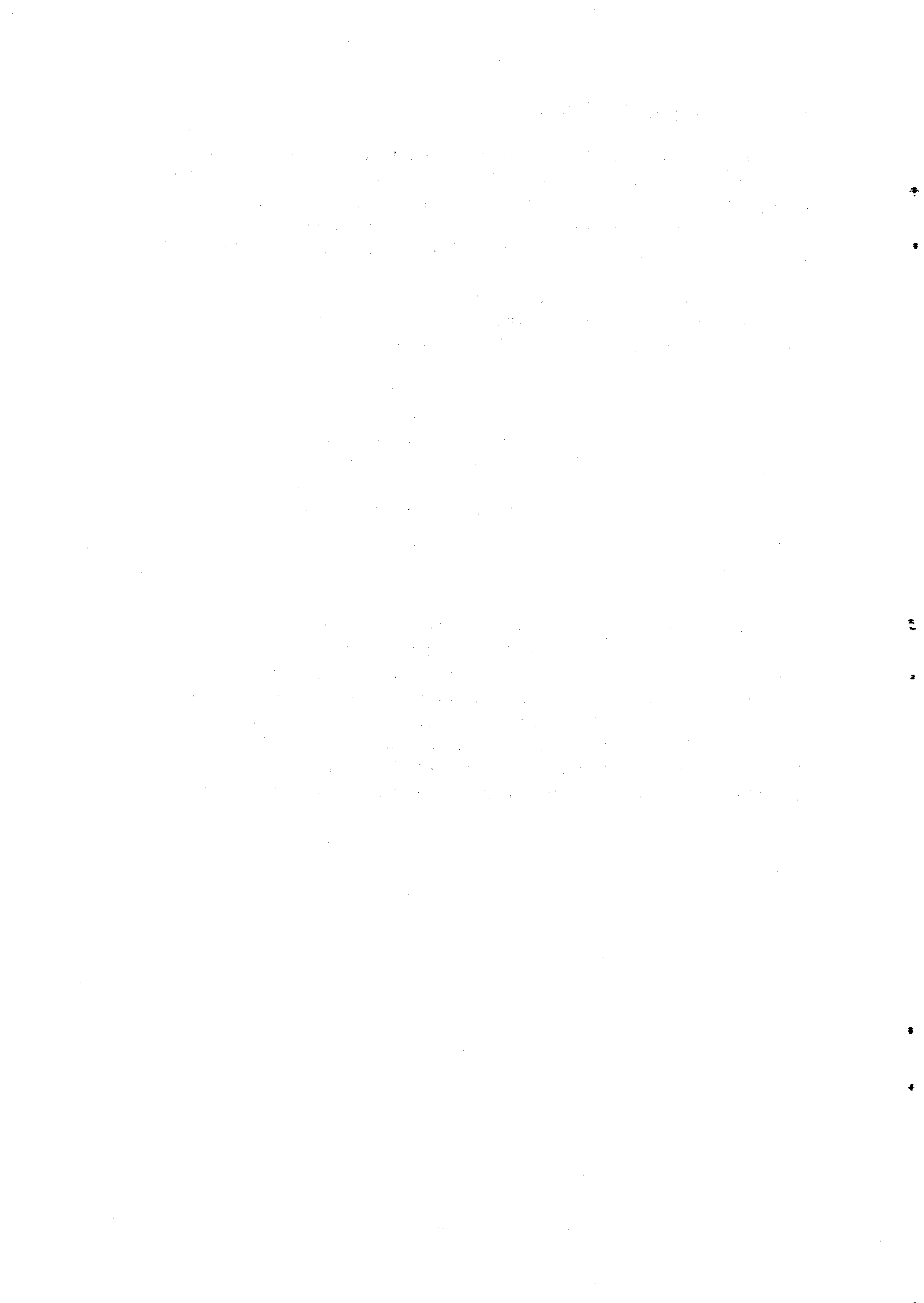
The main item of expenditure was overwhelmingly food which reflects the fact that even in the farming households farming does not provide all the food needs. The next most important expenditure item was fuel, followed by electricity, education and tobacco. Items of lesser importance were alcohol, social expenses, clothing and rent (most of the homes are owner-occupied).

To get an additional idea of the general economic status of the household questions were also asked about any items of value that were owned. Items asked about were bicycles, televisions, radios and jewellery.

Bicycles were owned by 57.4% of households and radios by 54.8%. Ten households (6.5%) had televisions and five households (3.2%) had cassette players. The majority of households owned some jewellery, most (43.9%) having at least one tola of gold. Only one household in the whole area had a telephone, three households had motorbikes and none had cars. It is likely that there was some underreporting of material goods because of the fear of theft.

SUMMARY

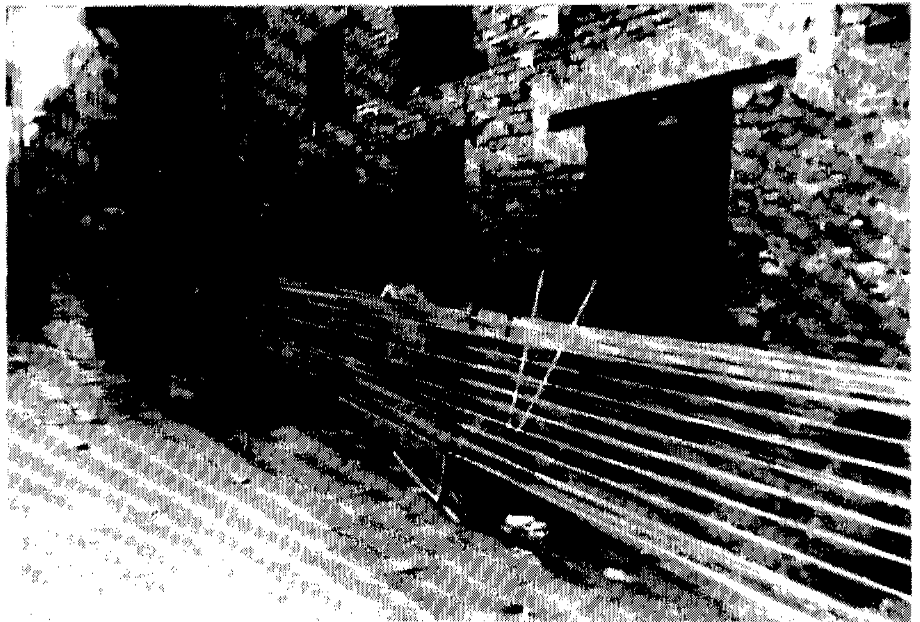
Overall the economic picture that emerges is one of relative poverty as most of the material wealth is unrealisable. Earned income levels are relatively low considering the number of people in each household and the fact that most households do not receive secondary contributions to their overall income. In most cases the household is still dependent on the earned income of its main wage earner or on income from farming supplemented by earned income. Women have little disposable income of their own and one of the major priorities for all sectors of this community is to increase their economic potential.



ECONOMIC ACTIVITY - WOMEN

HOME BASED YARN SPINNING FOR DOMESTIC CONSUMPTION

CLOTH WEAVING - A FAMILY OR COMMUNAL ACTIVITY DURING THE DRY SEASON



STREETSIDE FOOD SELLER - MANY WOMEN WANTED TO SET UP SIMILAR ENTERPRISES ON A LARGER SCALE.

ECONOMIC ACTIVITY - GENERAL

BRONZE/BRASS WORK - AN IMPORTANT LOCAL INDUSTRY

MILLING RICE - AN IMPORTANT ACTIVITY IN AN URBAN AGNARIAN COMMUNITY

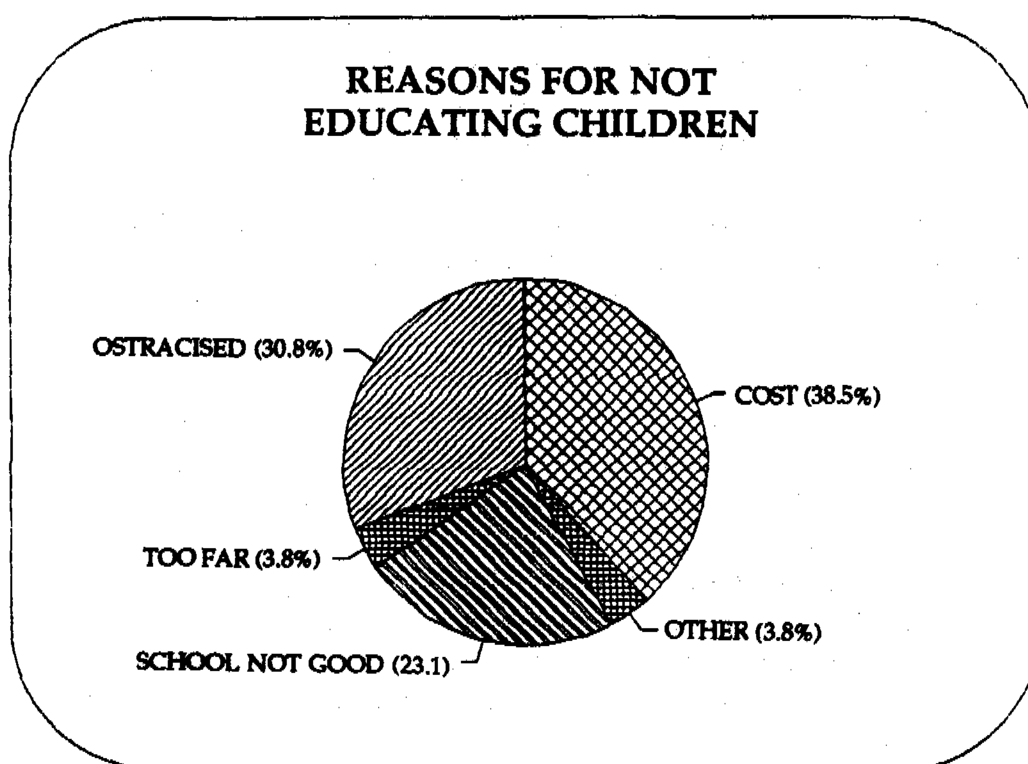
BRICK MAKING

BUTCHER SHOPS ARE FOUND ALL AROUND THE AREA AS THERE ARE MANY PEOPLE OF THE NEWAR KASAI (BUTCHER) CASTE LIVING CLOSE TO THE POCKET AREA.

SECTION 4. EDUCATION

Education is central to the whole process of development. It has long been known that there is positive correlation between female literacy and child survival and reduced reproduction. Health and sanitation messages are most effectively taught during school years yet secondary data suggests that only half of all boys and a third of all girls are enroled in primary schools.[9] Accelerated schooling has been mentioned as a possible solution for children in the urban areas who have to work, or who cannot attend school for other reasons. In this, children can choose to attend school at times to suit themselves.

FIGURE 7



Clearly greater flexibility is necessary in order to achieve universal primary education in the urban areas and adult education and other out of school programmes need to be provided. Improved educational opportunity have the potential in turn to increase the overall level of urban development. However, despite the greater availability of education facilities in the area this has had little effect on educational attainment. Skilled jobs demand higher levels of education but it can be seen that the children from this area cannot compete.

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9 "Education Statistics Report of Nepal" 1987 quoted in 'Children and Women of Nepal,' UNICEF, 1987.

A disproportionate number of the children who do not go to school are from Teta Tole. Twenty percent of all families did not send children to school and, of these, 40% were from Teta. The remainder were from Lukushi. Survey responses explaining why children do not go to school included cost followed by fear of ostracism (all from the Pode area). Other reasons given were that the school was not good enough or that it was too far. Focus group interviews suggest that the dynamic is more complex and discussions also centred on the hidden economic cost of sending children to school when they were also needed for child care or agricultural work.

In the sweepers' area particularly it is likely that the children are making money, to contribute to the family, from the collection and sale of waste. Therefore, while the given reason for not sending children in this area to school is primarily the fear of ostracism, a powerful disincentive could also be the economic value of the child's contribution through waste collection. This was touched on in focus group discussions but there was a reluctance to expand on the subject, perhaps because people felt that they might be 'judged' for keeping children out of school. It has to be remembered that the children themselves, once they start making their own money, are quite often reluctant to continue with, or take up again, the unproductive activity of education. It will need some imaginative approaches to really discover what are the incentives, or the motivating factors, to keep children in school.

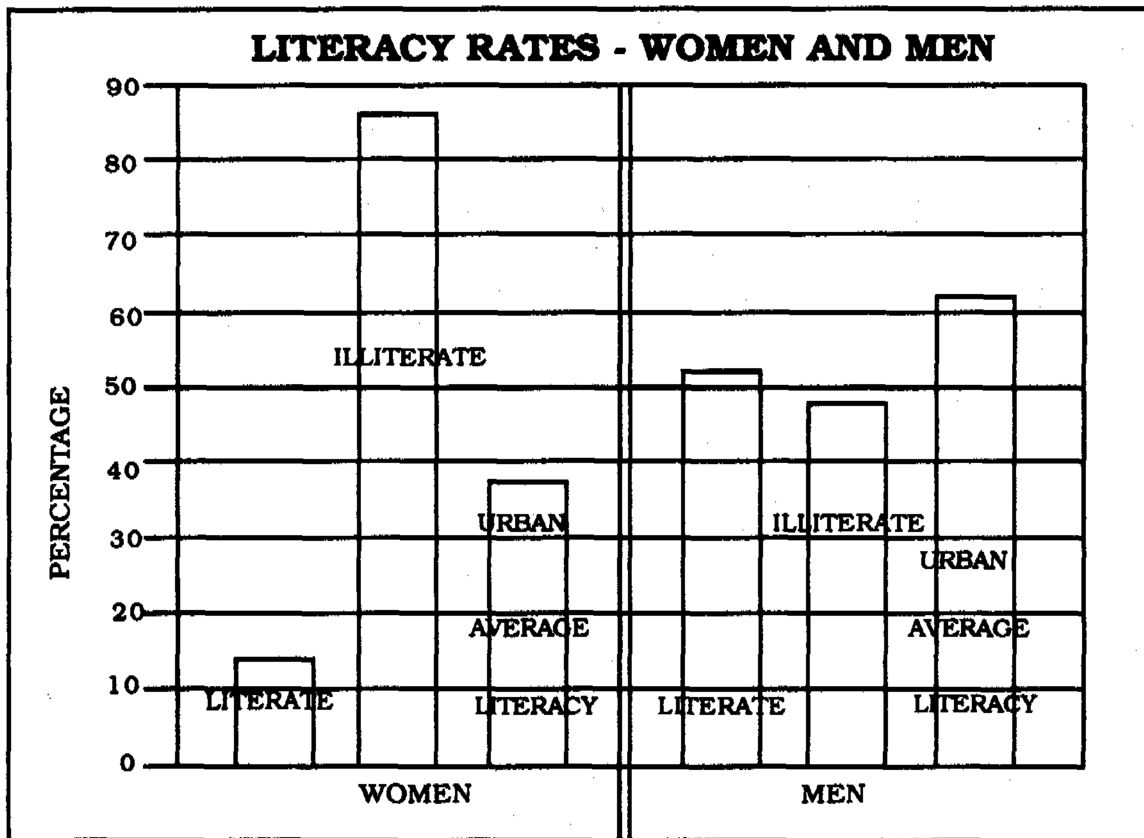
Respondents were also asked if they sent all children to school or only children of one sex. All children were sent by 80.2% of the respondents who did send their children to school, 17.2%, however, only sent their boys and 2.6% said they sent only their girls. This indicates the lesser perceived importance of educating girl children. Nevertheless, these figures are still encouraging compared to figures for girl child education in the rural areas. It does indicate, however that, despite the better availability of education facilities in the urban areas, there are still some intractable social and economic constraints upon achieving universal primary education.

A number of issues were explored in focus group interviews. Amongst the Pode group the most popular idea was for a separate school but, failing that, for some provision to educate their children separately in the normal school environment until it can be shown that they will not suffer prejudice. In some cases children had started going to school but had ceased attending because of the attitudes of their peers. Often the problem was seen to emanate from the parents who complained to teachers because their children had to share class space with the sweepers' children.

LITERACY

The women interviewed were all asked their literacy status using the commonly agreed definition 'are you able to read and write a simple letter?'. 86.5% of the women were illiterate and 13.5% were literate. The urban average in Nepal for female literacy is 37.45% The figure in the pocket area is significantly lower and reflects more closely the rural average which was 9.84% in 1981. This highlights that one of the main problems to be addressed in this area is the issue of education in general and female literacy in particular.

FIGURE 8



The male literacy rate was 52.6% whereas the urban average is 62%. This indicates that while literacy is still a problem amongst males it is not of the same magnitude as the female literacy problem.

Most of the women who had received any education had been educated to below SLC (School Leaving Certificate) level and only four (out of 156 interviewees) had their SLC. It should be remembered, however, that as the interviewee was generally the wife of the household head they are representative of a particular age group and the picture for younger women and girls may be improving. Of the educated males 76.1% had been educated to below SLC level, 13.6% to SLC level and 5.7% to intermediate level, 2.6% were graduates.

Female literacy was explored during focus group discussions and there was not much interest expressed by the participants. However, if classes were arranged which were dynamic and relevant to their needs the idea might become more popular. Some programmes use female literacy classes as a precondition for enrolment in other components such as production credit. This could have the effect, however, of excluding those women most in need.

SUMMARY

One of the major concerns of all the people in this area is education for their children and, secondarily, for themselves. There is a very high proportion of children in this area not attending school for a complex variety of reasons. Clearly distance and availability of school facilities are not the constraint that they might be in rural areas. There is still, however, the problem of social division between the two main groups in the area. This is one of the most intractable and difficult problems to address as there is a need for change in social attitudes. While attitudinal changes are now occurring, they are slowest to take root in precisely the area where it is most needed - especially amongst the poorly educated such as those in the pocket area. It will need to be acknowledged that this is the one area of the programme that needs the most attention but which could be the most difficult area in which to achieve tangible results.

Female literacy will be an important component of the UBS programme and although there is some interest there will need to be careful thought about how to 'market' the classes. Aiming first at women who hold positions of respect, like the traditional birth attendants, will increase their social standing and have very positive benefits in increasing their access to information about health. From another perspective there was much comment, in informal discussions and through contact with young people, that there is a great felt need for productive activity for the unemployed youth. They might make good literacy trainers or would benefit from skills training. The skills training would not have to be provided by UNICEF necessarily. It may be just a matter of the community organiser pointing people in the right direction.

SUMMARY OF GROUP DISCUSSIONS ON EDUCATION

Teta Tole Education Group

One of the group discussions in Teta focused on the fact that very few children from this area go to school. The main points arising from this discussion were:

1. The parents appreciate the value of education and, as much as any other group, they want their children to be educated and literate. However, they have tried on many occasions to send the children to school but have failed. In general the children come home very unhappy saying they have been treated badly by the other children. The parents discussed these problems with the teachers but no solutions were found and the children stopped going to school altogether. The teachers were apparently sympathetic but did not explore other options, such as schooling at different times. Perhaps this is because the school is very busy. However, there should be ways around this problem if support is received.

2. The definite preference amongst this group was for a separate school, as they have heard of the school at Kumbeshwar and once tried to set up a school of their own called the Janak Sikchhya school. This school was taken over by other groups and the Podes stopped sending their children there. If some form of accelerated schooling was provided the parents would prefer to send children in the morning as this fits in with their work commitments.

3. Their main priority is that their children should be able to study in a secure setting. They feel they need assistance to encourage the children to go to school. Previously they have not sought many solutions to the problem of education for their children as they feel powerless and have no social standing.

Lukushi Tole Education group

The participants were all male household heads who do not send their children to primary school.

1. This group discussed mainly the economic problems involved in sending their children to school. In most cases the economic value of having the children at home was of importance. All members of this group were farmers and their children were needed to stay at home to look after younger siblings. They also commented that the costs involved in sending children to school were too high. Although it is a government school they say that they have to pay various different fees. They maintain that the

main incentive for them to send children to school would be assistance with costs.

2. Some of the group who had previously sent children to school commented on the attitudes of teachers. They felt that the teachers did not really care about the childrens' performance and classes were so crowded that they could give no individual attention. They feel that teachers should get some form of recognition if they do a good job. As there are no incentives it does not seem to matter if the teachers perform well, or badly. They also commented that students are sometimes afraid of the teachers as they 'hit them' if they do not do homework and so on. They feel this could be changed if the teachers 'would treat the children as their own'.

3. This group explained that they have a guthi house (a guthi is a self help association, often religious in nature) in Teta Tole which they were willing to set aside for the education of children not attending school. In the past some teachers had volunteered to take classes for Pode children but they were looked down on as the teachers of sweepers and they found it to difficult to carry on. The parents in this group felt that times were changing and they were willing to work for the education of all out of school children, not just their own.

4. Practically they felt that more training for teachers was important. They would like greater provision of teaching materials and some sort of competition between schools in order to produce good results. However, for their own part the main factor to encourage them to send children to school would be financial assistance and some help with child care. They also noted that schools should provide proper toilets and taps and teach health and sanitation by example.

Mixed Tole Education Group

The participants were all Maharjans who do not send their children to school.

1. Again, the economic factors were of most importance. They needed the children to help with farming or to look after younger children. Sometimes they send children up to Third or Fourth Class (ages 8-9 years) but then take them out to help with farming. There is also the problem of parental control. Some children play truant and the parents find it difficult to control them. They also point out the difficulties they have in giving their children guidance in educational matters as they themselves are not educated.

2. They would like to see classes run at more flexible times, extra coaching for children at school and classes run for those who have left. Literacy classes for children who never attended school were a popular idea.

3. Some of the group felt that there was no point educating daughters as they go to another house when they get married. Hence the family receives no benefit from their education. Moreover, daughters are more useful to work at home.

4. They discussed private schools. They say that these create resentment because while the private schools are so much better they themselves could never afford to send their children there. The government, they insisted should be striving to provide the same kind of facilities to the state schools.

COMMENT

It is clear that education is one of the major priorities for people in this area. Both in the baseline data and in the group discussions this emerged as the primary concern of many households. Some support for improvements in education would generate a lot of goodwill and, in the long term, would have lasting effects in improving the overall development in this pocket area. Suggested strategies to overcome some of these problems have to take into account the special needs of the Pode group, but as far as possible, high cost and ultimately unsustainable solutions should be avoided. To have maximum effect UNICEF should concentrate on support to existing facilities which will allow Pode children to be educated in the mainstream school environment. Problems of ostracism and social isolation will not be overcome by further isolating this already disadvantaged group.

In considering support to education UNICEF will need to appreciate why people do not send children to school and should be prepared to offer other facilities such as a child care centre in this area so that children will not need to stay at home to look after younger siblings.

SUGGESTED STRATEGIES

The idea of education for children does not need to be 'sold' to the people of this area as there is clearly a good appreciation of the value of education. What is needed is practical support to ensure that the conditions are right for children to be able to attend school. With this in mind the following could be considered:

1. Child care. Setting up a pre-school facility which will free siblings and women from the burden of caring for young children. This is a popular idea which has also emerged from group discussions with women who see it as giving them the opportunity to have more free time for income generation activities or paid employment. The stimulating environment of a pre-school facility should also greatly benefit the children who attend, both in immediate developmental terms, and for their long-term educational needs.

   This is potentially the one of the most expensive activities but whether the possibility of using space in an existing building or whether any contribution could be forthcoming from the community can be explored through the users' committee. The local clinic in Tyagal was built entirely through local effort and similar energy and commitment might be mobilised for this initiative.

   UNICEF had proposed to use the home based approach to pre-school education in this area. For certain reasons it is felt that this is not the most appropriate option. The houses in this area do not have the space or physical facilities to accommodate groups of children. The interiors of the houses are dark and badly ventilated and there is not the space available that there is in the rural areas for the pre-school groups to spill out onto verandas or open spaces. There would be problems too of cross caste interaction. If an attractive facility were provided it may be possible to surmount some of the caste problems and may be a more acceptable approach than the home based one.

2. Support to the existing school. To provide schooling out of regular hours UNICEF may need to consider incentive payments for teachers to teach Pode children and to provide literacy classes for other children who were never able to attend school. It is possible that, in the long-term, the Pode children may be able to attend regular school hours if there is some degree of social acceptance and some acknowledgement of the financial disincentives inherent in their attendance at school.

   Physical improvements. Some improvements to the environment of the main school for this area (the Prabhat school) could attract children to the school. The physical environment is extremely unconducive to

stimulating learning. No teaching aids were in evidence. All the walls were bare and classrooms were overcrowded. Teachers would welcome, and benefit from, some training in teaching methods.

3. Social attitudes. More intangible but necessary is to spread the message to children (and maybe to their parents and teachers) that Pode children also have the right to education and should not be discriminated against on the basis of caste. There are educated people in the area who may be able to lead discussions on these issues.

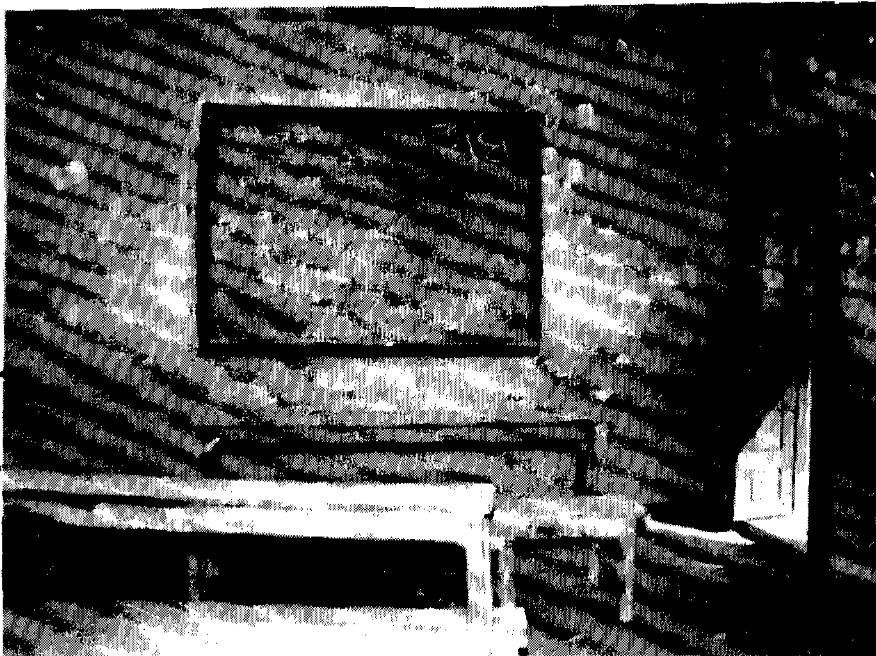
4. Adult literacy. Women in particular need some literacy training. Focusing first on those women (such as traditional birth attendants) who can actively use their literacy skills for the overall benefit of the community is clearly logical. Classes can then be provided for other groups of women and out of school children. Skills training and some employment for the young people of the area could be linked to this component.

5. Financial assistance. The economic burden of sending children to school needs to be explored though direct financial assistance is probably not to be recommended. It might be possible to consider setting up a fund in the school to cover the costs of the poorest children or waiving the fees for children who meet certain criteria.

6. Funding for education components. The issue of cost recovery for the strategies which require special funding will eventually need to be addressed by UNICEF if the programme is to be sustainable. This is, however, outside the scope of this study.

EDUCATION

CLASSROOM INSIDE THE LOCAL SCHOOL. ALTHOUGH BETTER THAN MANY SCHOOLS IN RURAL AREAS THERE IS A NOTICABLE ABSENCE OF STIMULATING MATERIALS THE INTERIOR IS ALSO DARK AND DAMP.



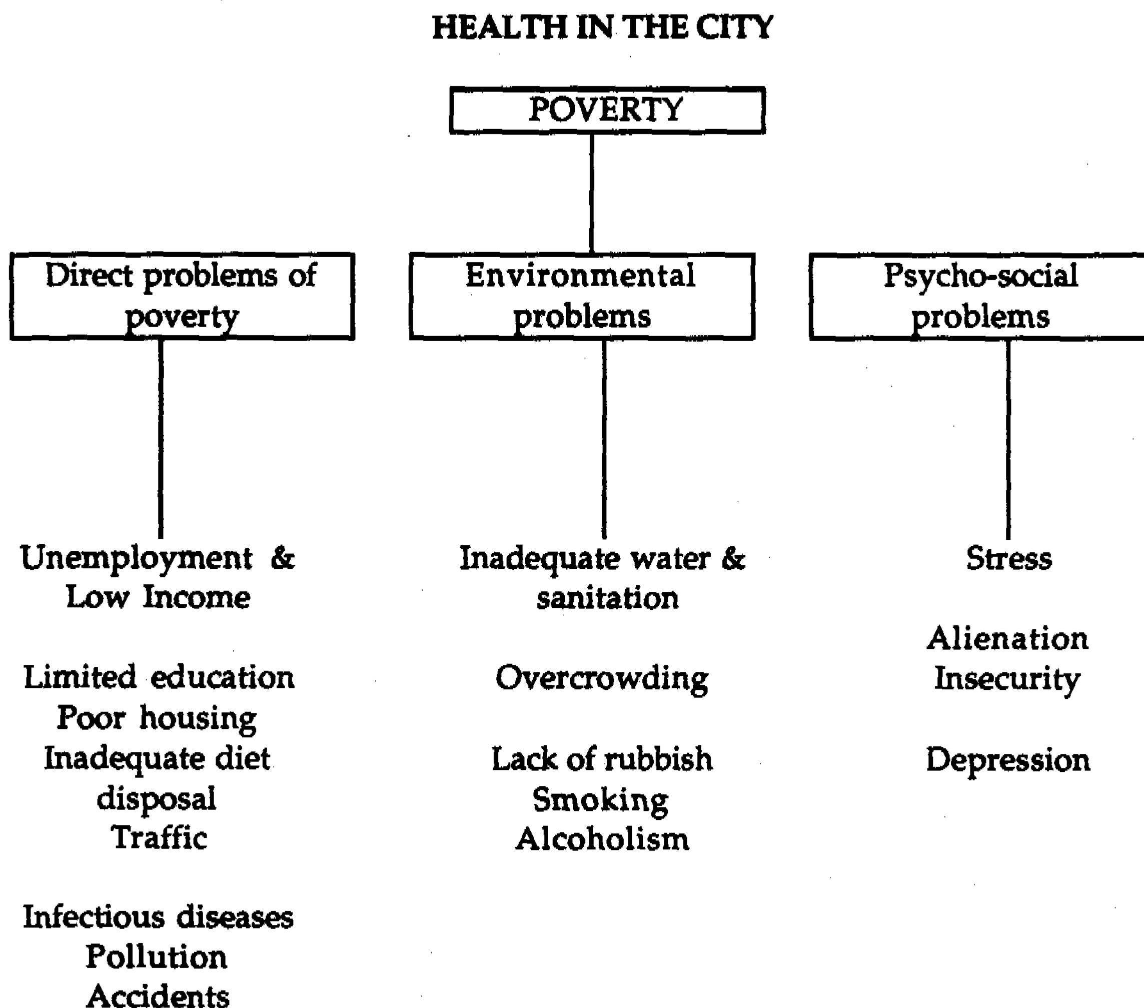
OUT OF SCHOOL CHILDREN. YOUNGER ARE GENERALLY LOOKED AFTER BY GIRLS AND NOT BY SIBLING BOYS.

SECTION 5: HEALTH

5.1. INTRODUCTION

Three factors which are detrimental to health operate against the urban poor. The first are direct problems of poverty, the second relates to man-made conditions and the third is the result of social and psychological instability. These all combine to increase the incidence of disease. Poor water supplies, lack of adequate sanitation and lack of sewerage make diarrhoeal disease one of the most important urban health problems. Fortunately, the urban areas of Nepal are not yet subject to the level of air pollution common to larger Asian metropolises, but the increasing level of traffic in the urban areas may make this more invisible pollution of greater importance in the future. Although abandonment of children is not a problem in this area many of the women articulate their inability to properly care for their children because of the demands of domestic work and other pressures.

HEALTH IN THE CITY



Adapted from Chapter 5 of 'In the Shadow of the City', Eds. Harpham et al - retaining only those factors of relevance in the pocket area (see bibliography for full reference).

5.2. ACCESS TO HEALTH CARE.

Access to health care is theoretically equal for all in urban areas, and services are more widely available. However, there are a number of factors which make the mortality and morbidity patterns of the urban poor resemble more closely the situation of the rural poor than that of their better off urban neighbours. Uptake of services is often poor for a variety of social and economic reasons. As can be seen from the clinic statistics respiratory infections and gastro-intestinal diseases are still the most important causes of morbidity amongst the children of the urban poor.

Clearly health cannot be seen in isolation from the environment. Poor environmental sanitation, crowding and poor ventilation in the houses all makes the situation worse.

5.3. AVAILABILITY OF HEALTH SERVICES

It has been noted that the presence of hospitals can actually hinder the development of a coherent health services infrastructure. This area is fortunate in having the Community Development Health Programme (CDHP)of UMN, the services of the clinic at Tyagal and Patan Hospital closeby. As can be seen, however, from the baseline data hospitals are normally only used for serious illness and, in common with much of the developing world, people still use traditional practitioners and pharmacies. Traditional medicine survives 'not only because people have faith in it but because it has adapted itself to the urban scene.' (Imperato in Harpham et al, 1988, p42).

The obvious remedy is to improve the uptake of primary health care (PHC) services in this community in association with improvements in water quality and sanitation. It has been noted before that there is a need for a specific urban form of PHC. Urban PHC is characterised by the environmental factors. Although the urban poor share, with the rural poor, the need for safe water and improved sanitation they also have other needs which include improved food and air quality. Because of the high density of urban populations the resolution of water and sanitation problems can be quite difficult. Another factor that is also impossible to quantify is what effect living in a state of urban poverty has upon mental health. There is also an ongoing debate about the differences between selective and comprehensive primary health care. UNICEF itself supports a form of selective primary health care through its GOBI-FFF (see list of acronyms) action which is often used as the basis for its health interventions in urban areas.

There is no problem with the availability of health services and medicines. Uptake may be poor nevertheless because of cost factors. More important may be the need to educate people in the appropriate use of services, and especially of the use of drugs in a situation where there are minimal controls. Fortunately, in Nepal there is hardly any use of breastmilk substitutes by the poor although

heavy marketing by the companies could change that situation. There is a belief, however, that a pregnant woman should not continue to breastfeed her older child as that child will become 'rhuncche lagio' (whining, generally run down etc.). One woman was observed feeding her thirteen month old baby with an extremely dirty bottle which, in the course of a fifteen minute observation, was handled by six different people, including two other children, and was dropped on to the floor two times with no attempt made to clean it.

There was awareness of the facilities available in the area but, despite the proximity of Patan Hospital, a fair number of people still said that they would consult a traditional healer even in the case of a serious illness. The reasons for doing so varied and expressed factors included belief, cost and proximity.

5.4. STRATEGIES TO STRENGTHEN PRIMARY HEALTH CARE

It has been noted in other areas that the most effective means of reducing infant mortality is to have a strong community organisation which backs up and promotes the PHC programme and environmental improvements.[10]

The lessons learned in other areas are particularly applicable here and the users' group and community organiser, if dynamic enough, could become the means through which the health component could be strengthened. Particular efforts should be made to:

i) mobilize and link up with existing private and public health care providers. In this area that would entail liaison with a number of institutions and individuals: the traditional healers, the traditional birth attendants, the Tyagal clinic, Patan Hospital, local pharmacies and the Public Health office.

ii) develop better linkages with sanitation, water supply and other service departments. Most services are available in the urban areas but links often need to be strengthened to ensure that services are provided and maintained. This has been successfully done by the Dhalko Project in Chettrapati which is coordinated by Redd Barna. UNICEF could usefully learn from the approach adopted there which has concentrated on building up confidence in existing services and has been undertaken at low cost.

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10 UNICEF/WHO. Consultation on Primary Health Care in Urban Areas 1986.

5.5. ANALYSIS OF HEALTH CLINIC STATISTICS

As the data on current morbidity was limited because it referred only to a one month period it was felt it would be useful to examine clinic statistics to gain an understanding of the annual pattern. A one year selection of cases was examined from the register. This is necessarily limited as the voluntarily run clinic is only open on a free basis for consultations on Saturdays. The paediatric register only was examined and, of that only the cases of children under the age of five. This gave an idea of the seasonal variation of health problems and a general indication of the range of child health problems. As expected, the number of cases reflect the overall morbidity picture for the whole country.

As this is a clinic and not a hospital some types of cases were rarely represented. For example, there were few accidents (which presumably would go to the casualty department) and few life threatening conditions (although some cases were noted to have been referred to hospital). Children with a whole range of minor problems would not have been taken by parents to the clinic and from discussions with the staff, it seems that diarrhoea cases are only brought in when the condition is already moderately severe.

An immunisation clinic is also run on Saturdays and it is very popular with people from the area as the queues are shorter than at the hospital. During the week the Community Development Health Programme, which is based at Patan Hospital, runs antenatal and other clinics.

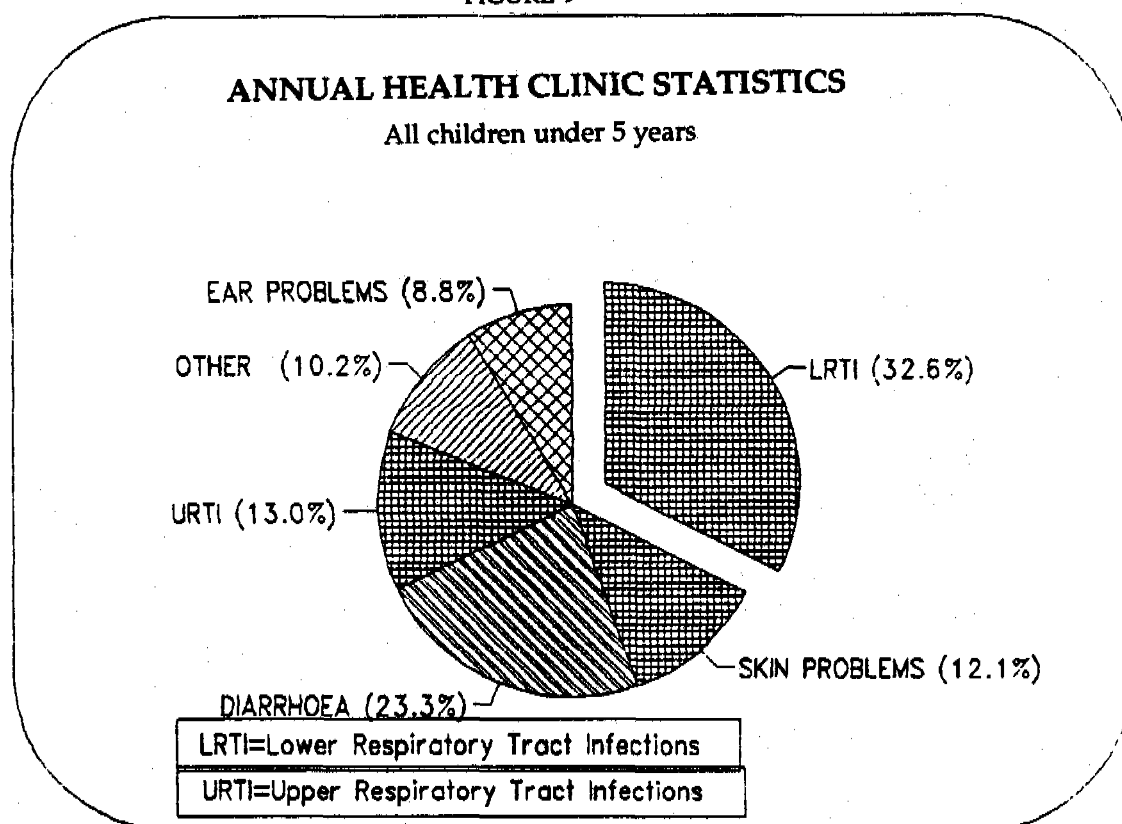
The clinic was built about eight years ago completely through community initiative. The bricks for the main building were taken from an upgraded road and cement and other materials were donated by the government. Money comes from interest on a fund which was donated to the clinic and day to day running costs are met from the registration fees. All the workers in the clinic give their time voluntarily on a rotation basis and a panel of doctors also give their time free of charge.

The commitment and enthusiasm of the people involved in this organisation are impressive and it is one institution which UNICEF might find it fruitful to work with, particularly in relation to maternal and child health and health education. The clinic committee consists of respected local men and they would be able to mobilise community support for health related activities. They naturally have a good understanding of the local environment and are keen to improve the area.

Breakdown of illnesses

For the under fives the most frequently presented problem was lower respiratory tract infection (LRTI). There was no breakdown in this category except in some cases it specified 'wheezy bronchitis'. It is this category of illness that is the number one killer of children in the country and, in this respect, the area is no different to rural Nepal. The treatment for all these cases was more vigorous than that for URTIs, again indicating its potential severity. Some of the cases were noted to be post-measles attacks. A separate category was noted for upper respiratory tract infections, which includes common colds.

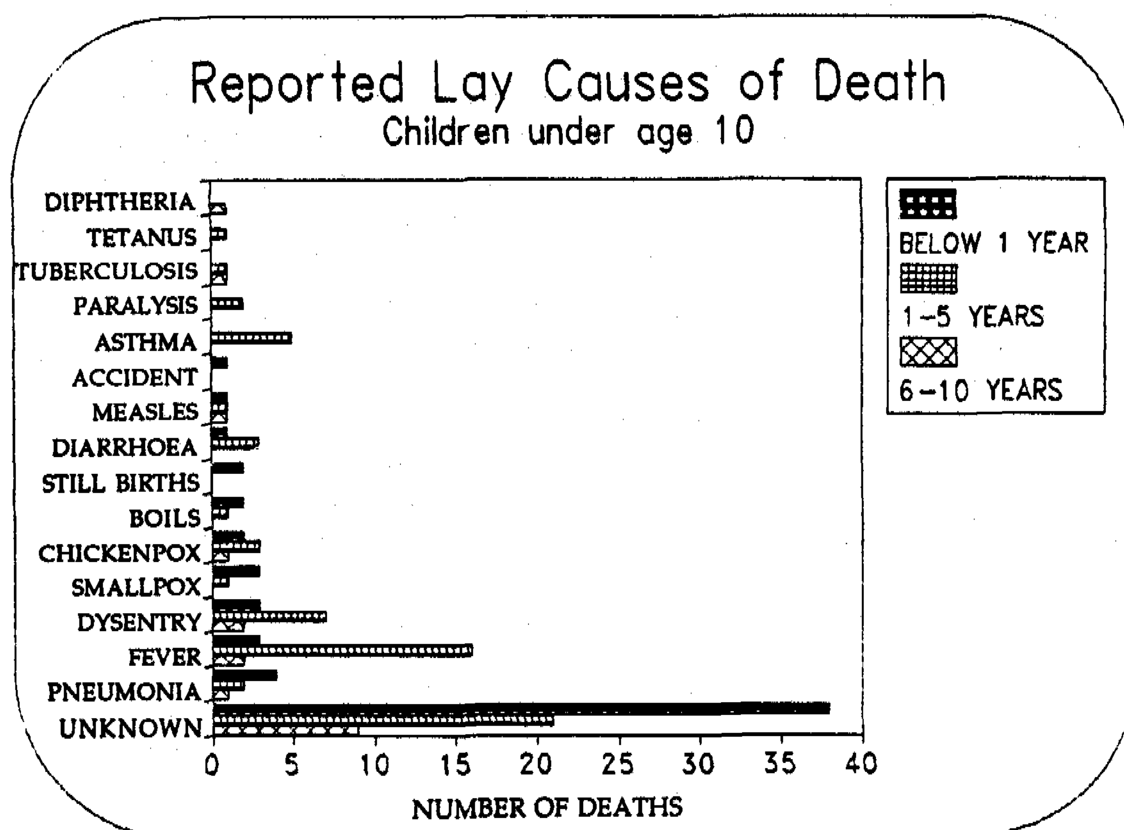
FIGURE 9



The second most common problem was diarrhoea but it was not possible to break this down as the results of stool analysis were not noted in the records. Where a diagnosis had been made, on symptoms, amoeba was commonly mentioned as were various worm infections, particularly ascariasis. The treatments for most diarrhoea cases included Jeevan Jal which might account, amongst other factors, for the high awareness of oral rehydration solution in this community.

The next most common problem was upper respiratory tract infection. The treatments prescribed would indicate that, although the parents might have been concerned, only symptomatic treatment was needed. Skin infections and complaints were the fourth most common complaint with scabies, ringworm and eczema all mentioned. Other problems reflect the usual complaints of this age group and included otitis media, conjunctivitis and abscesses. Old tuberculosis cases were also seen as were two cases of neonatal jaundice.

FIGURE 10



An examination of the clinic statistics shows that diarrhoea cases peak during the Nepali months of Ashad and Shrawan (June-August) and lower respiratory tract infections peak during Shrawan and Bhadra (July-September). These figures may not be wholly representative, however, as fewer cases were seen at the clinic during the main holiday season due to closures, family commitments and staff absences.

Seasonal trends in morbidity were noted by most women: 60.9% felt that Chaitra/Baisakh was the most unhealthy time of year, with Mangsir/Poush running second. Jestha/Ashad was also noted. This coincides with the peak in diarrhoea and dysentery cases and also coincides with the main period of food shortage. This is a critical factor in agrarian communities and, while the economy in the study area is more mixed, it undoubtedly is a factor in sickness trends.

Gender perspective

Where the sex of the child was recorded at the clinic it was noted to see whether there is any inclination to take boys more frequently than girls. While its statistical significance is debateable, of the total 325 cases where sex was recorded, 194 (59.69%) were boys and 131 (40.31%) girls, perhaps showing a slight preference to bring male children when they are ill.

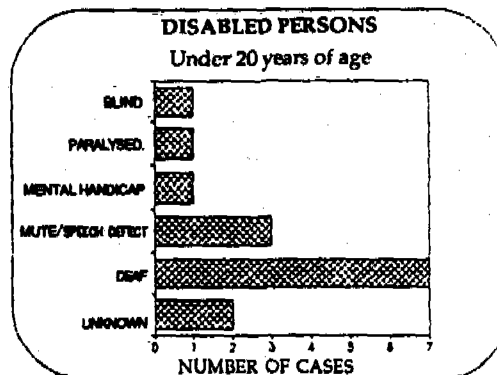
Mortality

Although no actual rates were calculated Figure 10 shows the main lay cause of mortality mentioned by respondents for child deaths under the age of ten. It is probably a reflection of the limited contact people have with hospitals, or the reluctance to ask questions of educated people such as doctors, that the majority of women did not know the cause of death.

5.6. DISABILITY

One problem with including data about disability in any survey is that there tends to be undereporting for a variety of reasons. In many cases it is shame at having a disabled family member. Disability is also seen, in Nepal, as inevitable and part of one's fate and there may not be a full appreciation of steps that could be taken to improve the quality of life of disabled people and to help facilitate their integration into society. Explanations vary, but disability is variously thought to be the result of a previous bad incarnation and is quite commonly known as 'God's curse'. Even the well educated may feel ashamed of their disabled family members and the disabled are often hidden away by their families because the 'stigma' is seen to attach to them all. Other people are reluctant to marry in to a family where there is a known disabled member, fearing that any biological reason for the disability may be passed on to the children of the marriage.

FIGURE 11



There seem to be degrees of 'acceptability' and the blind and the deaf are much better accepted than the physically malformed or the mentally retarded. The poor are more susceptible to disability because of the lack of access to preventive care and the increased exposure to potential disabling factors - particularly more dangerous and unregulated work conditions. For children the main problems are lack of access to preventive and curative care and lack of a stimulating environment if they do have a disability. Services available are disparately located and not known about by the families. A better approach would be to locate the care in the community, while providing information about specialist services if needed (for hearing aids etc).

Twenty-five percent of households reported a disabled member in the household but this included all age groups. The number of disabilities is probably also much higher because there will also have been underreporting of malnutrition (the second most important cause of disability world-wide) and other causes often not associated with disability. Of the disabilities reported (n = 38) 44.7% were deaf, 13.2% were paralysed, 13.2% had speech defects (this was probably related to hearing impairment but speech defects were mentioned as the primary

problems), 10.5% had mental handicaps and 10.5% were blind. The remainder had leprosy and elephantitis . There were fifteen disabled people in the under 20 year age group. Locational data is available for UNICEF to use if community based rehabilitation is to be implemented.

For mentally and physically handicapped children stimulation methods can be taught very easily to families and can often have a marked effect in improving potential for all but the most severely handicapped. This is extremely low cost and is sustainable as the families are normally well motivated to assist affected children.

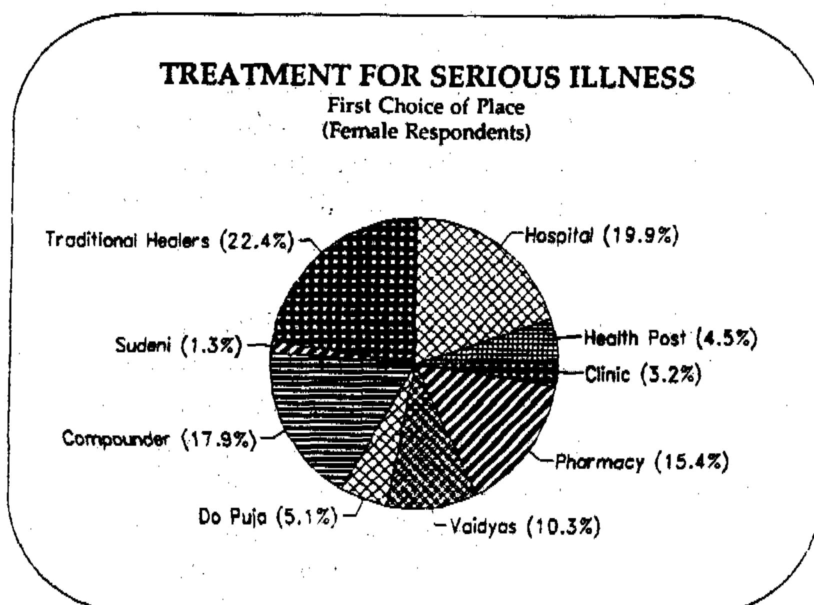
More difficult will be to effect the attitudinal changes needed within the rest of the community if disabled people are to be accepted as useful and productive members of society. The main disability for disabled people is often 'their exclusion from 'normal' life'. (From: One in Ten: Disability and the Very Poor, Adrian Moyes, Oxfam, 1981).

5.7. CHOICE OF PRACTITIONER

The survey asked where people choose first to go in case of serious illness and the following answers were elicited. In focus group discussions though it was clear that for more minor ailments 'traditional' healers (Dhami/Jhankri) were still very popular.

Men and women had different preferences for choice of first treatment. The main difference was that men were more inclined to use the hospital while women preferred either traditional healers, vaidyas, clinics or pharmacies. This may reflect that fact that the men, who are better educated, feel more comfortable in the hospital environment. Women gave the reasons for their choices as trust in the cures of their chosen practitioner, or that it was a matter of 'faith'. Few considered cost to be the prime factor.

FIGURE 12



When asked why they would not use a hospital distance was a factor. This is surprising as the nearest hospital at Lagankhel is about 10 minutes walk away. However, it could be that people would use the cheaper alternative at Bir Hospital in which case distance would be a factor. Other significant reasons for not using hospitals included cost and staff attitudes. Language barriers were also mentioned by some respondents and this was clearly brought out in TBA and other key person interviews. Women, particularly, feel insecure when they cannot communicate in Newari, as their Nepali is often limited.

5.8. IMMUNISATION AND NUTRITION

Neither of these two areas was covered in the survey in any detail as UMN have done surveys of immunisation coverage for all the households in the Ward 6 area. In 2045/46 (1988/89) they found 81.11% BCG coverage, 69.74% Measles coverage, 65.12% DPT coverage and 65.12% polio coverage. Only 21.12% of eligible women, however, had had tetanus toxoid. The UBS survey only really gave accurate information on whether children had or had not been immunised. Children had been immunised in 80.8% of the UBS households and 14.1% had not. Some did not know or gave no response. Of course, this does not indicate whether children were fully immunised or had followed the correct schedules and timing. To go into this in much more depth would require a fairly extensive separate survey of its own which would particularly investigate attitudes and practices concerning immunisation.

However, the figures alone show that there is a good knowledge about the need to get children immunised even though there might not be full understanding of the value of immunisation. These figures are good in comparison to the country as a whole and indicate that immunisation is fairly well accepted by this population.

Malnutrition was also estimated by the UMN survey. Of the 40.13% of the children that could be measured in the Ward 6 area, .44% were found to be severely malnourished, 1.12% moderately malnourished and the remainder well nourished.[11]

5.9. DIARRHOEA AND ORAL REHYDRATION THERAPY

Questions on disease prevention were poorly understood and the respondents explained what they would do if any of the conditions mentioned occurred. In cases of diarrhoea 73.7% of women said that they would use Jeeven Jal. This is a very high percentage and indicates that messages about oral rehydration have

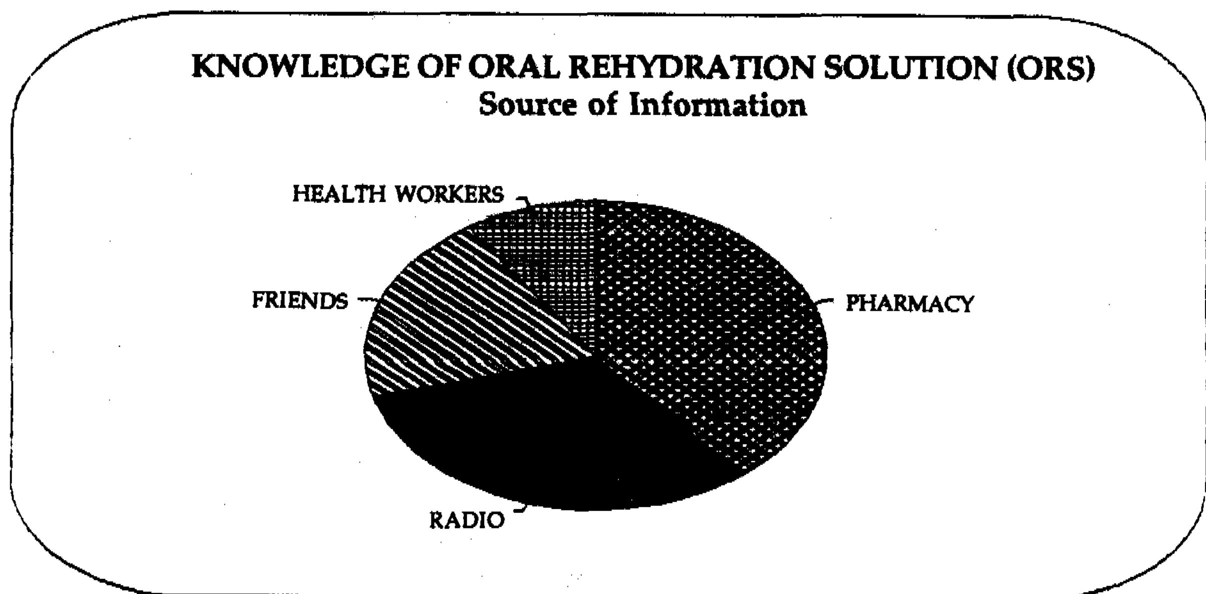
11 UMN - CDHP Urban Programme Status 2045/46

been well understood in the community. The pharmacies in the area and the Tyagal clinic all reinforce these messages. The remainder of the women said they would buy medicine from a pharmacy (15.4%) -this may, however, have been an oral rehydration solution. Others would use ayurvedic medicine (4.5%) or give the child hot water to drink (2.6%). The rest would either do nothing or go to a health post or hospital.

Respondents were asked where they first heard either of Jeevan Jal or of nun chini pani (oral rehydration solution). Thirty-nine percent had heard of it first from the pharmacy, 31.8% from the radio campaigns and 20.1% from friends and neighbours. The remainder had heard from health workers or could not remember. This emphasizes again the key role that pharmacies play in advising on appropriate treatment. Without an essential drugs policy or more controls on drug prescribing this field needs attention. UNICEF previously had a training programme for pharmacists, many of whom have no training and normally are more motivated by profit than social service. For UNICEF it will be reassuring to note that radio campaigns on oral rehydration are having some impact.

The majority of female respondents thought that diarrhoea was caused by eating too much (46.1%). The rest felt that it was either caused by eating stale food (24.3%) or by a combination of these two factors (14.5%). Only 2.6% of the respondents felt it was caused by drinking contaminated water, the remainder did not give any cause. For treatment the majority of respondents would turn either to a doctor (38.1%) or a pharmacist (31.6%) although 18.7% felt confident to treat it themselves.

FIGURE 13



In contrast to what was discussed in focus groups the survey respondents did not mention either TBAs or dhami/jhankris being important in treating diarrhoea. This dichotomy could be explained by the tendancy for surveys to elicit responses which the respondents feel interviewers want to hear. The more relaxed environment of the focus group, with peer group pressure enforcing accurate details about behaviour may be revealing more 'correct' information.

TABLE 11. PERCEPTION OF HOW CHILDREN GET DIARRHOEA

	Activity	Frequency	Percent
1.	Eating too much	70	44.8
2.	Eating stale food	37	23.7
3.	Don't know	19	12.2
4.	Both 1 and 2	22	14.1
5.	Not drinking boiled water	4	2.6
6.	No response	4	2.6
	TOTAL	156	100.0

5.10. OTHER DISEASES

For respiratory diseases the majority of women said they would buy medicine from a pharmacy (67.8%), 14.8% would give hot water and 6.7% would use ayurvedic medicine. A higher proportion would go for treatment to a clinic or hospital than would go for treatment for diarrhoea (8.8%). Similar patterns were found for other ailments, with more respondents likely to go to hospitals if they suspected tuberculosis. Ayurvedic medicines were popular for fevers and hot water was also given to fever cases.

5.11. HEALTH EDUCATION

This was one of the main areas to be addressed. The main basis of the study was the KAP model, determining knowledge to influence attitudes and change practices. This model has been criticised as not being dynamic enough to take into account the diversity of the community. It can imply a fairly didactic approach.

A different approach has been described in various publications which define health education for primary health care as fostering activities which encourage people to:

- to want to be healthy
- know how to stay healthy
- do what they can individually and collectively to maintain health
- seek help when needed (WHO, 1983 in Harpham et al).

Two approaches have been developed around a community based approach to health education. The social marketing approach is a 'promotional' approach which aims to change behaviour through mass media and other marketing techniques. The 'educational' approach aims to show people how to analyse and change their own conditions. Some combination of these techniques together with community effort (bottom up) and expert support (top down) is needed for health education to be effective. Some programmes implemented in other parts of the world (Brazil, Kenya and India) provide excellent models of how these approaches can be implemented practically through the formation of health committees. Local examples are also available, such as the Bhaktapur project.[12] The health education component of this has been written up in full detail and provides a useful model for other projects to follow as it also concentrates on the components which did not work. The two key factors in leading to the success of these programmes were the selection of well motivated staff and the reluctance to implement the programme until there was sufficient interest expressed by the community.

In this pocket area health education has to run concurrently with improvements in sanitation, solid waste disposal and water supply. Many different approaches can be adopted but suggested starting points include:

1. 1. Mass meeting - this can generate interest and publicity for the programme. In this area a film would be a good magnet but the use of drama could also be explored. The aim of the meeting should not only be to create an awareness of the connection between sanitation and health but also to determine how effectiveness of the chosen media. The main drawback to using this as a starting point is that it is difficult to organise. Poster campaigns would have limited effectiveness amongst women. Even if the posters did not use writing the level of visual literacy is not known and the materials would have to be field tested in the area.

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12 'Community Development Oriented Health Education. Health Education Programme in Bhaktapur: An Experience.' K.B. Shrestha and P. Shrestha, 1989.

In the longer term health education can only be effective if it is constantly reinforced and targeted at the people most likely to effect changes in health status. In this community this means targeting women and children.

2. Health education in schools - This is also difficult to sustain. Often classes start with great enthusiasm but fail if teaching methods become too static or if the messages taught are not reinforced in the school environment. Part of the learning process can be to clean and rehabilitate the school latrines. Teaching methods should include practising health education; washing hands rather than talking about it and making kitchen gardens rather than talking about improved nutrition.

   Incentives for children are very effective in stimulating interest. Spot checks on hygiene and rewards for cleanliness are productive. The key to all of this though is training for teachers or using outsiders with expertise for certain subjects. Using outsiders stimulates interest but, to be sustainable, health education has to be incorporated into the curriculum in a more stimulating way than at present.

   Detailed methodologies have been outlined in the Bhaktapur report and could be replicated in Lalitpur.

3. Health education through literacy - Teaching materials which use health education messages have been developed by other projects and could be effectively adapted for use here. One of the major problems in the older age groups is the level of comprehension of Nepali. It may be necessary, initially, to only include women who are fluent in Nepali.

   Practical sessions such as those used in the Seti project are a useful model for this project as literacy is taught there through an understanding of community problems and solutions.

   Health education and other topics of community interest are used as the basis of the literacy classes, and related activities teach appropriate, low cost solutions.

SUMMARY OF GROUP DISCUSSIONS ON HEALTH

Health was explored during group discussions and some common themes emerged:

1. Sanitation and disease. There is generally quite a high awareness of the link between poor sanitation and disease. From the Teta area came the following quote 'faeces in the environment is bad, it not only causes a bad smell but disease can be spread by flies that settle on it, our children get ill from this'. The most common health problems perceived were respiratory diseases and diarrhoea in children. Fevers and headaches were also mentioned. One of the main problems in Teta is the lack of toilets and if toilets can be built the people feel that many of their health problems will be solved. This shows a fairly sophisticated appreciation of the link between ill health and sanitation which can be capitalised on in health education and sanitation programmes.

   In Teta there is also great concern about the accumulation of waste and garbage in the area. The lack of drainage is the overriding concern and while most of the adults go to the river to defecate they cannot make the children go there. They scold the children for defecating in the courtyards but there is nowhere else for them to go. They say that the dirty environment causes diseases like diarrhoea and tuberculosis.

   It is clear from focus group discussions that people probably have a better understanding of the link between bad sanitation and ill health than was evident from the survey responses. Focus group discussions are able to probe and guide discussion more, eventually achieving some group consensus on ideas or beliefs.

2. Water and disease. There is some awareness of the link between dirty water and disease but people feel that if the water looks clean it is clean. Drinking water mainly comes from standpipes and the well water is used for washing pots, clothes etc. However, during periods of water shortage the well water is also used for drinking. Nobody boils water before drinking.

3. Beliefs about diarrhoea. A common belief is that children get diarrhoea when they eat too much but some group participants said it was because the children do not wash their hands before eating. Again this shows an understanding of the link between hygiene practices and disease. People are also concerned that they cannot look after their children properly due to work commitments (particularly farming). They are aware that leaving them to play in the street in the dirt and to excrete without proper cleansing predisposes their children to sickness.

4. Choice of practitioner. In the Teta area there is a preference to go to the vaidya or dhami first, especially in cases of diarrhoea. If this treatment does

not work they will go to a pharmacy and only then to hospital. The discussion groups complained that the medicines they are given at the pharmacy are sometimes out of date and do not work. They are generally reluctant to go to hospital because they say it is very expensive. Even though it is a government hospital they have to pay a lot for the medicines.

The clinic in Tyagal is popular as it is only a couple of minutes away from Teta. If the children get sick some of the people in Teta will take them to the aji (TBA), she will do a puja for them.

5. Knowledge of immunisation. Women interviewed knew that they should have children immunised although they were not clear which were the illnesses that could be prevented. There was a definite preference to use the clinic in Tyagal because the queues were short. It is also close and convenient. However, interviews with TBAs suggested that women are sometimes reluctant to be immunised against tetanus when pregnant as they feel it could harm the baby and some TBAs felt that immunisations for children could harm them. Some mothers commented that as their children had got sick (fever) after the first immunisation they did not take the child back for the full course. This clearly indicated that health workers should be giving out more information following immunisation and should actively follow up defaulters. Some women also believe that the injection will be very painful for them and they will not be able to work. Some of them avoid immunisations for this reason.

6. Traditional beliefs about health. There was not much appreciation of how diseases are caused apart from the link recognised between poor sanitation and health. In the Lukushi area people generally first go to the dhami, if they have no success with this they will then go to the hospital or clinic. Apart from the cultural reasons for consulting the dhami people also go for economic reasons. They say that hospitals and doctors are too expensive. and that doctors treat them badly because they are poor. Sick babies (with diarrhoea or respiratory diseases) may first be taken to the dhami, although all focus group participants were aware of Jeevan Jal and nun chini pani and said that they would use it for a very sick child.

Women in this area still commonly believe in boksi, and some women are identified as boksi because of their behaviour. The nearest translation of this would be witch or evil influence. The boksi can harm others through her powerful influence. For any illness that they believe is caused by the boksi they will consult the dhami.

The influencers' group which discussed health also emphasized the importance of recognising that people's first contact during illness is normally a traditional practitioner and these dhami/jhankris or vaidyas should be included in any health education programme.

7. Decision makers for health matters. In most cases the man of the household decides where to go and when. Occasionally the mother-in-law might decide particularly when it relates to a baby or small child. Generally, people have a fairly pragmatic approach to health decisions. They will try whichever method they think will work and, for certain illnesses, they feel that the dhami is most appropriate. However, there is no resistance to trying allopathic medicine if traditional methods fail. This sort of behaviour has often been reported in Nepal - people do not rigidly adhere to one practice or another regarding health care and, while they may have preferences regarding first choice of treatment, they are quite willing to consider other avenues if this is not successful.

8. Effective media for health education. All groups were interested in film for communicating health messages. Some people felt that influential people could also have a role to play. There was interest in giving some training to community members on health matters so that they could go around door to door talking to mothers in particular. Radio was less popular as a means of health education but people said this was mainly because they have so little time to listen. If programmes on health are broadcast it would have to be in the evenings when they are back from the fields.

9. Attitudes to hospitals. Most people in the area felt that hospitals were expensive and that they discriminated against poorer people. They were apprehensive about needing to go for serious illnesses as the charges were well above their means. If they did become seriously ill they would tend to go to Bir Hospital as they could not afford the charges at Patan.

SUGGESTED STRATEGIES - HEALTH

1. The most popular ideas way of spreading health education messages was through the medium of film. Films are a novelty in the area and people remember vividly the details of films that they have seen, even years ago. To be effective the films would have to be in Newari and would have to have some entertainment value. Much less popular was the idea of spreading health education through radio. For the children it was thought that the school was the best place but many people mentioned that health education is taught very badly. More lively methods were suggested such as dramas or puppets. Other mass media were not felt to be very effective. Most of the women cannot read and therefore poster campaigns or other literate media are not appropriate, nor is the idea popular.

2. It was noted that schools cannot teach health education effectively when their own environment is so poor. Some attention should first be paid to providing more toilets in schools and having a good water supply. There was some interest in incentives such as a prize for the cleanest school or cleanest child. This was tried with some success in Bhaktapur and other projects where, for example, the family of the cleanest child would get some small incentive like a trip to the zoo for the whole family. This costs very little but can be productive.

3. On immunisation. There are few problems persuading people to get children immunised, probably because of the excellent work done in the area over the years by the Community Development Health Programme run from Patan hospital. However, it has been found that some of the traditional birth attendants (TBAs) feel that immunisation can harm the child. TBAs should perhaps be offered further training. More follow up is needed and more information has to be given about immunisation side effects as people often default if the child gets sick following immunisation. One comment the trained TBAs had about previous training was that it was not run in Newari. This is essential in order for them to understand what is being explained.

   Although there is a good understanding of the need to have children immunised there is very little appreciation of which diseases are prevented. It has been noted in a report on immunisation in Sri Lanka that to get mothers to accept the habit of immunisation they should be able to link immunisation to disease prevention and identify the diseases which could be prevented by immunisation.[13] This has to be addressed in health education programmes and there has to be some means to constantly disseminate information to mothers. As most of them have no, or little, contact with the mainstream health sector some other method has to be

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13 Mothers' Knowledge, Attitudes and Practices Regarding Child Immunisation: A Baseline for a Communications Programme. Lakshman Wickremansinghe, UNICEF, Colombo 1989.

found either through the traditional birth attendant network or through the hospital, for mothers who deliver there. While the traditional birth attendants do give advice about immunisation they do not do so routinely. They also have poor knowledge about the timing of immunisations. The crucial point is that they can persuade the mother to go to the clinic. The staff there can then take responsibility for disseminating information.

Where mothers mentioned that they had not taken the child back for repeat immunisation the main reason given was that the child got sick (ie fever) the first time. Very little information is given about side effects of immunisation and this needs to be routinely incorporated into the immunisation 'ritual'. Watching some immunisation sessions it was clear that very little interaction takes place between the health worker and the client and some attention needs to be paid to verbal interaction.

4. Diarrhoeal diseases. The knowledge of oral rehydration solution in this community is already quite high so the objective to increase knowledge to 80% should be met with ease. What does need further investigation, however, is how thoroughly this knowledge is applied.

5. Disability. The numbers involved are very small so it should be possible to increase service uptake of existing facilities rather than set up a community based rehabilitation programme just for this area. If a programme was to be set up it should cover a wider radius in order to be cost effective.

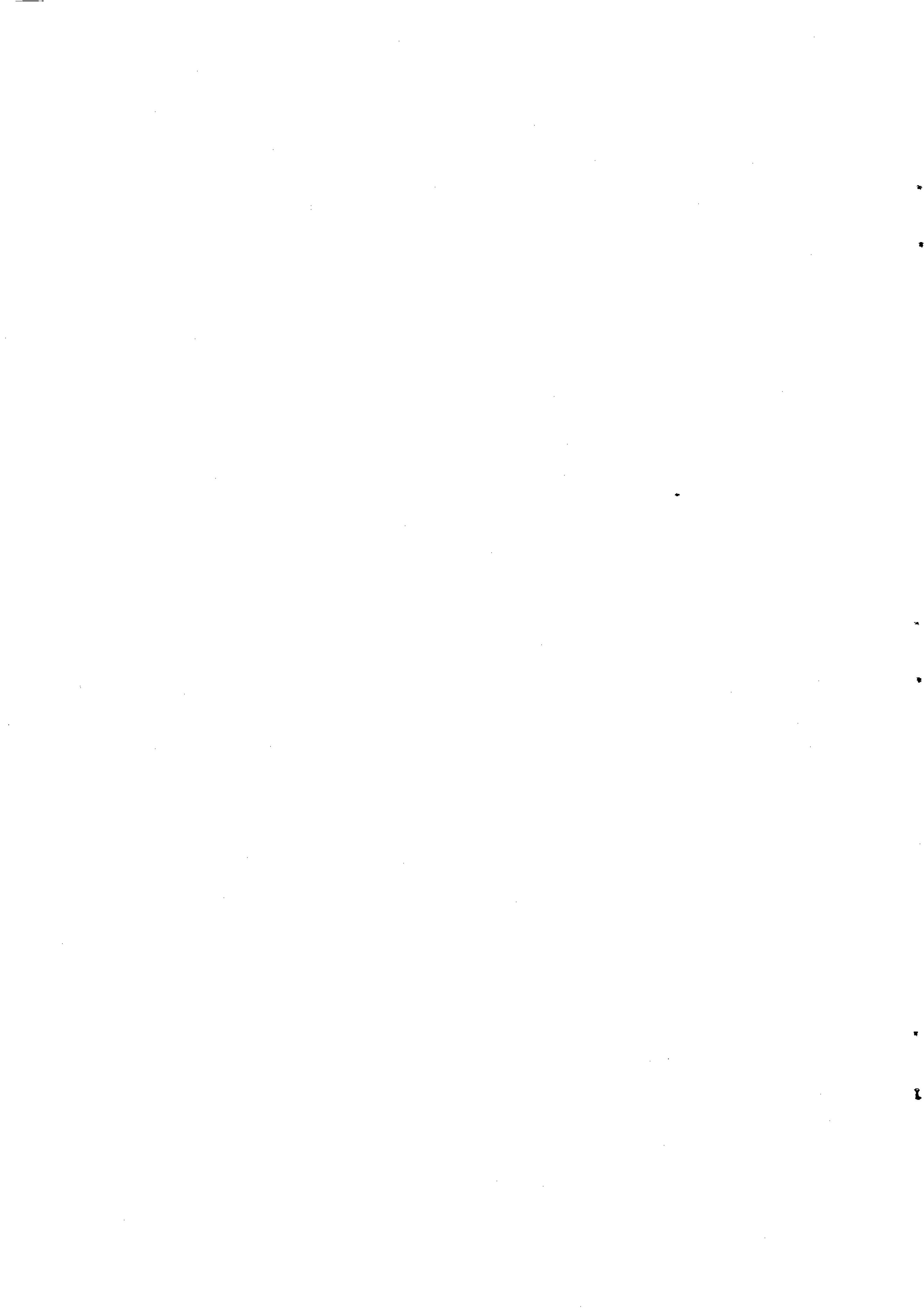
6. Growth monitoring. It would be better to concentrate on improving uptake of existing services, such as the Tyagal clinic, and to liaise with CDHP as this area is fairly comprehensively covered already.

HEALTH

TWO LOCAL TRADITIONAL BIRTH ATTENDANTS (KNOWN AS AJI IN NEWARI). AJI ARE POPULAR WITH LOCAL WOMEN AND ARE NEARLY ALWAYS CALLED FOR HOME BIRTHS. THEY ARE ALSO CONSULTED FOR ADVICE ON CHILD HEALTH.

PHARMACIES ARE IMPORTANT FIRST CONTACT POINTS FOR MANY PEOPLE SEEKING TREATMENT FOR MINOR, AND SOMETIMES, MAJOR ILLNESSES. THEY ARE ALSO INFORMAL HEALTH ADVISORY FACILITIES.

HOME BASED LOCAL REMEDIES INCLUDE OIL MASSAGE FOR BONE & JOINT PROBLEMS



SECTION 6. WATER SUPPLY AND SANITATION

Sanitation is one of the major problems to be addressed in any urban programme as 'much of the health risk in urban living arises from poor sanitation' (Cairncross 1985 in Harpham et al, 1988 p113). Five major areas of sanitation have to be considered:

1. Water supply

2. Rainwater drainage

3. Sullage or grey water drainage

4. Excreta disposal

5. Solid waste disposal

It is well known that many communicable diseases arise from poor levels of personal hygiene and the failure to comprehend elementary sanitation procedures. However, individual measures aside there is very little that can be achieved without sufficient water and an effective means of removing solid waste.

There are a whole range of diseases which result from faecal contamination of drinking water; gastro-enteritis, fatal dysenteries, typhoid, endemic viruses and hepatitis. The collection of solid non-biodegradable waste in areas where there is poor drainage leads to further problems. The presence of open areas of waste attracts rats and flies leading to further health hazards. The failure of many previous has sometimes been partly attributed to a lack of understanding of the socio-cultural situation. Certainly in a Newari community the traditional beliefs concerning waste disposal have to be taken into consideration.

1. WATER SUPPLY

It has been found that while the provision of more public taps has little effect on consumption of water the provision of individual supplies or a supply to each small unit (ie a courtyard) does have a significant effect on consumption. The main problems in the pocket area are an erratic water supply and the quantity of water available. However, this has to be linked with improvement in the capacity of the whole system to cope with an extended distribution network. This is something that UNICEF can do little about other than to liaise with the relevant authorities and large infrastructural support donors. Local solutions are possible and should include the installation of guttering, and rainwater catchment tanks and the upgrading of wells.

It has been estimated that, to avoid water borne diseases, the minimum amount of water needed for per capita consumption is about 40 litres per day. However, it is not possible to measure water consumption accurately because the amount of water taken home does not equate with water consumption, as so much is used at the water supply site.

The primary source of water was ascertained for all households. Most, 48.1%, had a private connection, 44.9% used communal taps and 5.1% used a neighbour's supply. Only 1.9% used well water as their primary water source. It was observed, nevertheless, that well water was commonly used for washing clothes and utensils and that during periods of water shortage well water is used for drinking. As some of the wells are in very poor condition, and are not cleaned or covered, this represents a serious health hazard.

TABLE 12. PRIMARY WATER SOURCE

Source	Frequency	Percent
Private tap in house	75	48.1
Communal tap	70	44.9
Neighbour's tap	8	5.1
Well	3	1.9
TOTAL	156	100.0

Water supply problems are particularly acute in the pre-monsoon and early monsoon season. The main problems relating to water supply were that there was an insufficient supply (76.6% complained of this and 22.9% said they had to wait too long). Bad quality water was reported as a secondary problem but was not a major concern. The majority of women collect water twice a day with only a few having to collect more often. Women said they had to get up very early to get enough water for their household needs. During periods of water shortage the majority (59.0%) of women would go to the stone taps and 33.3% would use wells. The remainder would try neighbours or the tap stands.

The majority of women were interested in ways of improving the water supply. Primarily the demand was for more private connections followed by an increase in the water supply times. The majority of women also indicated willingness to contribute either labour or money towards the improvement of the water supply system although they felt that the primary responsibility for initiating changes lay with the authorities.

TABLE 13. RESPONDENTS' SUGGESTIONS FOR IMPROVING WATER SUPPLY

Suggestion	Percent
More private connections	27.3%
Increase the supply hours	26.6%
Enlarge the central reservoir	16.2%
Repair pipes	1.9%
Don't know	28.0%
Total	100.0%

The container used for collection and storage of water was, in 91.7% of cases, a gagro (either metal or clay). In the house, most women store the water in a covered gagro (61.5%) and most reported using some method to clean the container; water was normally rinsed around the inside, and ashes, or water and ashes were used to clean the outside.

Link between water and illness

Boiling water to prevent sickness was known about but noone practised it as they say that boiled water is not 'tasty' and they do not have enough time or fuel to boil it.

The majority of women (56.4%) felt that illness could be connected to drinking water. While there was a belief that influenza could be related to bad quality water only a minority connected gastro-intestinal problems with drinking water. As there is some appreciation of the link between ill health and water without a full understanding of the connection it might be relatively straightforward to correct misconceptions through health education.

Well Survey

All wells in the pocket area were surveyed. There were eleven in all of which two were totally damaged, three others were in poor condition and the remainder were used for washing people and utensils and sometimes for drinking. The wells used to be traditionally cleaned during the Cithi festival during the month of Jestha but they have not been cleaned in the last two years, in some cases because the water level is very low. Wells are still an important water source especially during periods of shortage and some attention needs to be paid to upgrading existing facilities.

2. RAINWATER DRAINAGE

One of the main problems identified through group discussions was inadequate drainage. It is a problem that becomes particularly acute during the monsoon. Most of the houses have no guttering and there is no drainage system to cope with the run off. Technical solutions to this problem are outside the scope of this study but pilot projects such as those in Recife, Brazil provided comprehensive solutions at low cost. Apart from the difficulties of waste water disposal, 43.6% of household reported that rainwater drainage was a problem with water collecting around the houses. Clearing of blocked drains and more internal drainage for waste water were seen as partial solutions to the problem.

3. DISPOSAL OF WASTE WATER (SULLAGE)

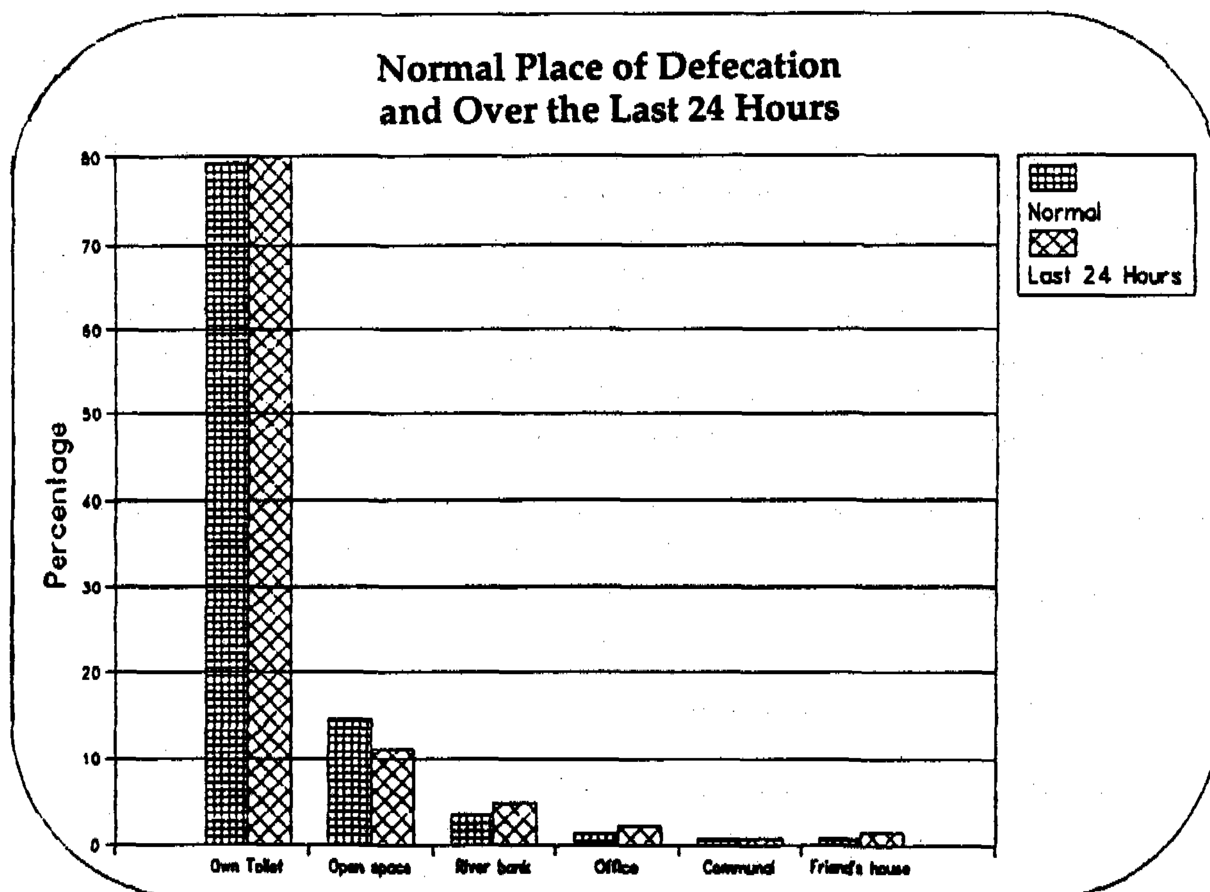
Usually the waste water produced by washing, bathing and so on can be coped with by the excreta disposal system. Obviously this is not an option for those households without systems, nor is it practical where people use communal water facilities.

The majority of households (50.6%) had a sullage pipe which either drained into a saaga or into the chowk or street. Twenty-one percent of households had sinks with a drainage system but 28.2% still threw waste water out onto the street or into the chowk. The lack of adequate household and communal drainage was one of the major problems noted through observation. Stagnant pools of dirty water are in evidence everywhere and water draining into overfull saaga creates an environment much favoured by rats and pests. The solution to these problems was felt to be the provision of more sullage pipes in association with better drainage and maintenance of the existing system.

4. EXCRETA DISPOSAL AND HYGIENE PRACTICES

In the pocket area 80% of household have their own toilet and 20% use other places. As can be seen in Figure 14 the majority of respondents used their own toilet if they had one. Other sites commonly used included open spaces and the river bank. The behaviour of women and children closely mirrored this pattern indicating that where toilets are available they are generally used by everyone in the family. More women, however, used communal latrines, although most of these were from Teta. There was minimal interest in using communal toilets as all complained about the lack of upkeep of the existing one. The overwhelming preference was for private toilets.

FIGURE 14



All respondents mentioned some method of cleansing after defecation. In accordance with usual practice 98.6% cleaned with water and only .68% with paper. The remainder did not specify the method. Following defecation 86.8% reported hand washing but this was often without soap, 2.75% reported taking a full bath and 3.44% washed both hands and legs.

The toilets were mainly of the pour flush type (92%) with 6.19% pit latrines and 1.76% other. Nearly all the toilets were located on the ground floor of the house and the remainder were either in a courtyard or field. Key person interviews suggest that the pour flush type of toilet is probably the most acceptable. The double pit compost system was felt to need too much space and was not appropriate for the urban area. All families without toilets reported that they would like one except for one respondent who said he had no space. It was therefore not necessary to have a focus group discussion with people who had no toilets and did not want one but only with those people who had no toilet and wanted one. Pour flush toilets have the benefit of being relatively cheap and

need little maintenance. Only 1.5 litres of water are needed to flush the system, which is a prime consideration in an area where water supplies are inadequate and erratic.

Communal toilets

This was explored through the survey and group discussions as one possible solution to the problem of toilet provision. Overall there was very little enthusiasm for this idea. Communal toilets were thought to be dirty and even if they were good when first built they soon ran down for lack of maintenance and cleaning. To provide communal toilets would be a last resort solution as people want private latrines which they would then have an interest in maintaining. Generally, if adequate drainage and sewerage could be provided the majority of people were willing to build their own latrines if given some technical guidance.

The other factor against communal latrines is that no-one wants it near their house. There is no great desire to continue using river banks or open spaces but currently some people have no other option.

Hygiene practices of women and children

All reported some form of anal cleansing although direct observation of children suggests that in many cases young children defecate without cleansing either anus or hands.

Fifty-nine percent of women reported handwashing before cooking and 26.3% would also wash hands after cleaning or sweeping. Very few reported handwashing before feeding children. In most cases only water was used for washing (53.8%). The remainder used soap and water.

Bathing

There are obviously seasonal differences in the frequency of bathing depending on the climate and the availability of water. In the winter months the majority of women will bathe only once a week or twice a month. Only 6.4% would take a daily bath. In the summer months the frequency of bathing increases with the better availability of water and the warmer climate. In the summer women will take a weekly bath or bathe more often. For bathing the majority use soap and water with only 25% using water only. The reasons for not bathing more often were mainly seasonally related but a small proportion of women thought that frequent bathing could cause illness. Children are bathed with roughly the same frequency. Hand washing for children was reported before eating in 44.9% of cases and in 34.6% of cases 'whenever they got dirty'.

The main problems facing women in keeping children clean are time factors and the insufficient water supply. A proportion of children, like children anywhere, simply do not like bathing. It seems clear that there are not too many difficulties about basic hygiene practices but a better water supply and simple health education may encourage women to increase the incidence of child handwashing and bathing. Practices after defecation of children need particular attention but this could also be improved by better toilet provision and improved water supplies.

TABLE 14. SEASONAL VARIATION - FREQUENCY OF BATHING

	Winter		Summer	
Number of Times	No. Pers.	Percent	No. Pers.	Percent
Every day	10	6.5	10	6.5
Every 2nd day	1	0.6	17	10.9
Twice a week	17	10.9	50	32.1
Once a week	88	56.4	66	42.2
Twice a month	39	25.0	11	7.1
Monthly	1	0.6	1	0.6
No response	0	0.0	1	0.6
Total	156	100.0	156	100.0

Knowledge of the relationship between sanitation and disease

The majority of women (82.1%) said they knew of a link between poor sanitation and disease - 17.5% of these thought there was a link between diarrhoea and poor sanitation and another 38.1% mentioned complaints that could be linked to poor sanitation practices (dysentery, cholera, vomiting and stomachaches). The remainder either could not specify a link or gave an inappropriate reply such as poor sanitation caused influenza.

In key person interviews it had been said that people in this area do not mind children defecating in the street as people do not perceive children's excreta to be particularly harmful. This does not seem to be true as 64.5% of the female respondents felt that children's excreta was harmful. Sixty-one percent of these positive responses linked faeces with illness, 24% said that it smelt bad and was dirty and the remainder thought it was harmful but did not know why.

SUMMARY OF GROUP DISCUSSIONS ON SANITATION

1. Generally there was no resistance to improving either environmental or individual sanitation. The main constraint has been that even when people wanted to construct toilets there was an inadequate sewerage system and the community cannot afford the huge financial outlay for a new sewerage system. They also lack the technical knowledge. Improvements therefore have to be undertaken with the help of the authorities.

2. It was mentioned that older people, and women in particular, are fairly resistant to change. It is with this group that most work has to be done. Older women are often unconcerned about children using the streets for defecation. As they are often left caring for children during the day they are responsible for developing children's hygiene practices.

3. Sometimes children are frightened to use latrines because they think they can fall into them. However, others in the groups said that children can soon learn how to use toilets if someone has the patience to stay with them. The main problem is that children are accustomed to defecate anywhere and they are rarely admonished.

4. The water supply problem is closely linked to sanitation problems. The inadequate supply means that some people cannot clean their toilets properly and so they go to open spaces because their own toilets smell too bad.

5. In Teta the majority of people use the river bank of the Teta Lukushi river. There is a communal toilet close to the area but it is extremely dirty. The women of the Teta area still use it but there is no water and there are piles of faeces everywhere as no-one has the responsibility to clean it. Most people would prefer to have their own toilets and would construct them if they could be connected to a sewerage system. They think that communal toilets are a good solution in economic terms (ie low cost) but that ultimately they will fail because people feel no individual responsibility. Communal toilets would have a greater chance of success if someone was paid to clean them but, generally, there was very little enthusiasm for this solution.

6. Some groups mentioned the minimal impact of health education programmes if there are no overall improvements in sanitation conditions. Moreover, all felt that people would take an interest in better health if the environment was cleaner and more attractive.

SUGGESTED STRATEGIES - WATER AND SANITATION

1. Technical solutions are beyond the scope of this study but if proper sewerage and drainage were provided it is probable that most households would build their own toilets. There is normally space on the ground floor for an internal toilet. In the Teta area the preference is to have the toilets connected to septic tank systems.

2. The problem of water supply has to be addressed. The inadequate supply has implications for sanitation and health as hygiene is dependent on a good water supply.

3. Household drainage and rainwater drainage has to be considered as the accumulation of stagnant water continues to be a problem.

4. Wells need to be rehabilitated as they will continue to be an important source of water until overall supplies are improved. Even if the overall water supply situation were to be improved it is expected that wells would continue to be important meeting places for women and wells could have a ritual importance. This was not investigated and is only a supposition.

5. The communal toilet in Teta need not be renovated if private toilets are provided. If it is to be renovated some provision will need to be made for proper cleaning and maintenance. It is possible that the site could more usefully be turned over to some other activity.

6. Some attention needs to be paid to sanitation in schools as the physical facilities are not conducive to reinforcing health education messages.

7. There is some appreciation of the link between poor sanitation and disease and this knowledge can be built upon in health education programmes. These should be targeted at groups such as older women and children who most need to change practices.

WATER SUPPLY

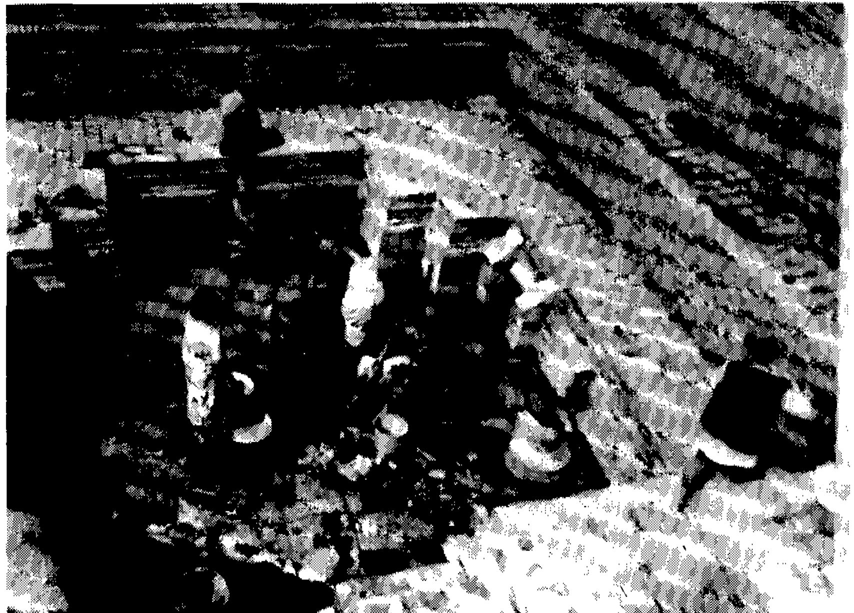
INSANITARY CONDITIONS AROUND A STANDPIPE IN THE TETA AREA

A WATER SOURCE IN LUKUSHI TOLE - THE FLOW IS OFTEN INADEQUATE.

WATER SUPPLY

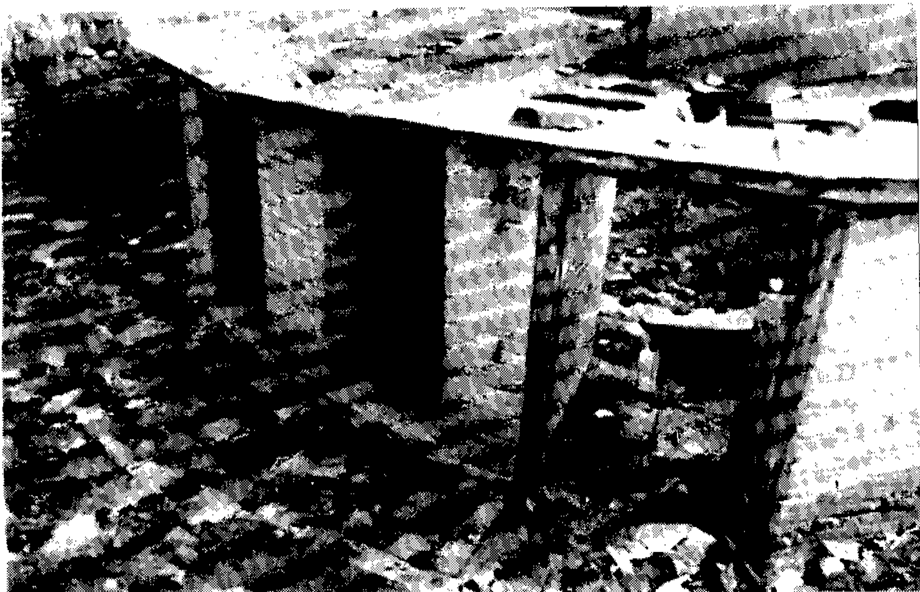
A WELL IN A COURTYARD - STILL AN IMPORTANT SOURCE OF WATER IN TIMES OF SHORTAGE AND YEAR ROUND FOR WASHING CLOTHES AND HOUSEHOLD ITEMS.

WAITING FOR WATER. THE SUPPLY IS VARIABLE AND THERE ARE OFTEN SHORTAGES



STONE TAP: AN ALTERNATIVE SOURCE OF WATER IN THE AREA.

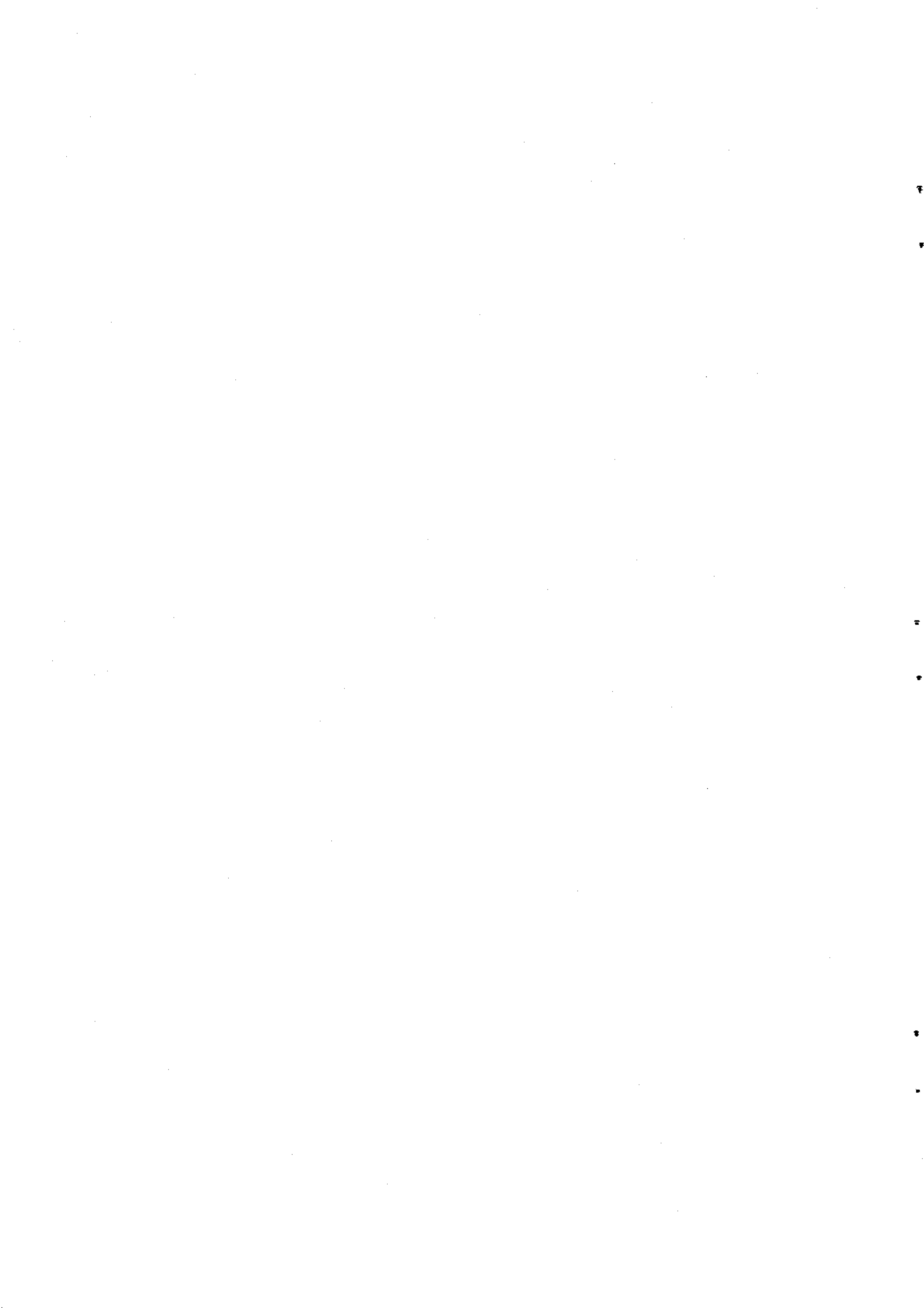
SANITATION



COMMUNAL TOILET NEAR TETA TOLE

INTERIOR OF THE COMMUNAL TOILET. THIS IS STILL SOMETIMES USED BY THE WOMEN OF TETA TOLE FOR LACK OF SUITABLE ALTERNATIVES.

PART OF AN ALLEYWAY USED FOR WASTE DISPOSAL AND FOR DEFECATION.



SECTION 7. SOLID WASTE MANAGEMENT

Solid waste disposal has to be given as much priority as other components if environmental sanitation is to improve. As noted in Harpham et al 'if refuse is not regularly collected, it is hard to think of where else to put it'. The problems are lack of adequate containers, infrequent emptying, problems of access to areas from where waste could be collected and user education. People need to be made aware of the facilities available and to be given the confidence that the facilities will be maintained. Smaller bins do solve the problem of access but either municipal funding has to be available or good community organisation has to be in place to ensure regular emptying. Ultimately systems work better if someone is being paid to maintain them and if the community supports the interventions proposed.

Solid waste disposal is one of the most obvious problems. A quick walk around the area makes this quite clear. Apart from data collected on solid waste management the following information was gleaned from observation and from key person interviews.

TRADITIONAL METHODS OF WASTE DISPOSAL

The inside of the houses is nearly always clean and there is evident concern and pride in having a (clean) personal environment. There is a definite cultural concept, almost universal in Nepal, that the inner space must be clean (particularly the hearth) while the outside space, being in the public domain, is of less concern. It is everybody's and nobody's business.

Reasons given for why only the external environment is dirty vary from 'the authorities should do something' to 'I should do something but do not have time'. The older age groups do not seem to perceive that the environment is dirty. It could be interesting to explore further cultural constructs related to cleanliness and dirtiness. Factors emerging from key person interviews state that people would like to clean up the environment but do not have the means to do so. There is a lot of energy, currently wasted, in the voluntarily set up Solid Waste Committee consisting of about 80 young people headed by a chairman and secretary. They are interested in obtaining equipment to clean up the area, the placing of small bins and health education for the community.

The nearest container is a good five to ten minutes walk from many of the houses. This is enough of a deterrent for many households. However, there is a definite resistance to having containers any closer as people say the area is too crowded, and as the smell will be bad, no one wants it close to their house. More popular was the idea of some sort of small bin which, if it was emptied regularly, might be used. Factors to take into consideration though are scavenging dogs (the

bins need to be fixed and maybe so they cannot be knocked over), and they must be emptied regularly.

The saaga

The saaga is a pit dug behind the house or in a courtyard, where all degradable waste is thrown. This is one of the most popular methods of biodegradable waste disposal and is obviously important in a farming community.

Nearly every farming household has its own saaga where all vegetable refuse, food waste and sometimes children's faeces are thrown. Quite commonly utensils are washed over the saaga and the excess liquid then accumulates causing more problems with environmental drainage. It is allowed to degrade and is emptied three or four times a year (or when full) and used as fertilizer. Problems related to the saaga were mentioned and included the bad smell that occurs especially in crowded areas at hot times of the year and the rubbish which gets strewn about by scavenging dogs. Some saagas are owned by more than one household but more usually each household has its own. Fewer new saagas are being built and some group participants mentioned that as people move away from farming the saagas are left unemptied and the smell becomes very offensive.

Another survey which explored the acceptability of a communal saaga (to reduce the smell and number of saagas) elicited very negative responses.[14] The saaga is a source of income to farmers and there would be disputes about sharing the fertilizer. It is better therefore to explore methods of improving the current practice rather than trying to change it.

The nauga

The nauga is still important for internal waste disposal. The most commonly used fuel is agricultural by-products particularly crop residues. This generates ash which is also used as fertilizer. In farming households the nauga is always located on the ground floor, under the stairs. At night the nauga is used for urinating in and children sometimes defecate there although this is not encouraged. It can be assumed that the nauga and saaga will continue to be of importance in agrarian households.

The chwaasa

It was noted throughout the area that there are certain places where waste accumulates and that these are not cleaned. These areas, normally at crossroads, are known as chwaasa. Interestingly, the Newari interviewers, who presumably were too familiar with the Newari environment, did not 'see' these features.

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14 Sanitation Education in Khokana (A Report on the Baseline Survey). Vol 1, New Era. 1983.

Also the Newari interviewers, in common with the Newari community, did not view the chwaasa as potentially significant health and environmental hazards. In accordance with Newari custom the clothes belonging to a deceased person are thrown there and the location is generally viewed as 'inauspicious'. Other rubbish collects, and these chwaasa become sites for considerable accumulation of waste. During festivals, buffalo are slaughtered on the chwaasa site to honour the dead.

On exploring in groups what could be done to clean up these areas there were some fairly intractable problems. People of the Maharjan caste say they cannot clean the chwaasa as they are inhabited by evil spirits and they could die if they clean them. They say there is no prohibition on Podes cleaning the chwaasa and they come anyway to take away the better clothes that are thrown there.

In former times the chwaasa used to be further from the houses but they now recognise the problem as open spaces become more limited. There is no easy solution to cleaning up these areas as these chwaasa have a ritual meaning that cannot be ignored and people are not willing to clean them during cleaning campaigns.

WASTE DISPOSAL PRACTICES

On a daily basis vegetable matter will be disposed of, normally in the saaga, if available. Other waste thrown out on a daily basis includes paper and household sweepings. Inside the houses a variety of containers are used for disposal - including paperbags, metal containers and plastic bags. Some household still use the nauga for disposing of waste internally.

Externally only 19.9% of women use the yellow containers provided by the Solid Waste Disposal Board for waste disposal. The majority (37.2%) still use a recognised 'communal' rubbish heap. This can either be an alley way which is no longer used as a thoroughfare or may be the chwaasa. The remainder have a private garbage heap. When asked why the yellow containers were not used the majority reported that they did not know where they were located. This may show how rarely women, in particular, stray from the immediate vicinity of the home, although it could also be a problem of either recall or the form of questioning. The rest said that the container was too far away or that they kept the degradable rubbish to make compost (from emptying the saaga). Many people in the survey and in discussion felt that there were no problems with the current practices. This indicates behaviour patterns that might be difficult to change as, in some other areas, there was a perception that practices might not be totally satisfactory. In focus group discussions there was interest in having more yellow containers in the area but noone wanted them too close to the houses. In a built up urban area this is a fairly intractable problem. Added to this there are difficulties for vehicular access to Lukushi Tole.

TABLE 15. METHODS FOR DISPOSING OF HOUSEHOLD RUBBISH.

Method Used Inside House	Frequency	Percent
Under the stairs	13	8.4
Containers	15	9.6
Plastic bags	43	27.6
Floor	20	12.8
Metal tin	44	28.2
Paper bag	1	0.6
No Response	20	12.8
TOTAL	156	100.0

Method Used Outside House	Frequency	Percent
Yellow containers	31	19.9
Out of the door	39	25.0
Common garbage heap	58	37.1
Put out for animals	2	1.3
Private garbage heap	15	9.6
Collect for farming	11	7.1
No Response	0	0.0
TOTAL	156	100.0

There was a perception by the majority of women that the environment around their houses was dirty - 62.8% felt that it was dirty whilst the remainder felt that there was no problem. This contrasted significantly with the interviewer's impressions. Eighty-eight percent of them felt that the environment immediately around the houses was dirty. Although these are undoubtedly subjective opinions it does contrast the perception of a literate, educated group with the perception of a largely illiterate and economically disadvantaged group.

Sweepers are employed in the area by the town authorities but the majority of women felt that it was their individual responsibility to keep the environment clean. This is a positive feature as this group does not always expect to wait passively for an outside authority to assume responsibility. Overall, it was found time after time, that this is a responsive and largely responsible community who are willing and able to take on a considerable amount of community development work if they are given some necessary assistance.

A number of households sort their rubbish for reuse. Compostable waste, in particular is kept for agrarian activities. In the sweepers' area it was found that many of the children, who are not attending school, go out during the day to sort through waste in order to sell it. Children like these can be seen all over the Kathmandu valley area going through yellow containers picking out tin cans, plastic bags and other recyclable rubbish. The parents of the Pode children claimed that they did not know what the children did with the money that they earned through this means.

Some of the Pode households collect human and animal excreta for resale - one 'ghee' tin selling for about five rupees. Eight percent of households reported collecting excreta and these were nearly all from the Teta area. It was in this area there was most interest in the installation of toilets that would use some sort of septic tank system as income earning opportunities could accrue from this method. It would be worth having a poster campaign before toilet installation is implemented to see which method people really do prefer. In a sweepers area in Bhaktapur the vast majority chose pit composting latrines.

SUMMARY OF GROUP DISCUSSIONS ON SOLID WASTE DISPOSAL

1. Disposal practices. The issue of solid waste disposal was explored in all groups. People felt that there would be more incentive to keep the environment clean if paving, adequate drainage and proper sewerage systems were in place. Many reported throwing their waste out either early in the morning or late at night when their neighbours could not see them. Therefore there is some community pressure not to soil the environment. In the Teta area there was an awareness of the state of the environment but people felt that, without some minimal assistance with drainage, paving and provision of more containers, there was very little they could do.

   In many locations the yellow containers were said to be too far away and there were also complaints that they are not emptied often enough. For that reason people did not want containers close to their houses because of the foul smell. The saaga were also felt to be a problem. They are emptied irregularly and the smell of rotting waste pervades the whole area.

2. Cleaning campaigns. These have been tried in the past and while they are thought to be useful for launching a programme they have very little long-term effect. Unfortunately cleaning the streets is still seen as a low caste activity and some people will not join in. The influencers felt that changing attitudes to caste and occupation is a long-term matter. As all the discussions were taking place around the time of political changes in Nepal many oblique references were made by discussants to the constraining effects of the political system and how it served to reinforce traditional attitudes. Much criticism was made of the tendency for talk and no action. People also need to feel that the improvements made 'belong' to them. The communal toilet was cited as an example. It had been built by an outsider with good intentions but as it was not requested, or instigated, by the community noone felt responsible for maintaining it.

3. Possible solutions. As people are reluctant to have yellow containers near the houses they felt that some rubbish drums could be placed in each chowk and that they would take responsibility for emptying them. They had heard of this in other areas where the drums have 'use me' written on them and they thought this would be effective.

4. Solid Waste Committee. One group discussion was held with some of the members of the voluntarily constituted Solid Waste Committee. This is a group of young enthusiastic people who had previously tried to do something to clean up the area. It was formed about three years ago but they acknowledge that they have not been able to do much because of lack of resources. Moreover, as they are younger they are not respected by older people in the Toles when they try to discuss environmental cleaning. They identify the main problems as lack of proper drainage and paving. They

were prepared to give free labour to help in paving and pipe laying. When the committee was established they used to sweep the streets once a week and had obtained some equipment from the town authorities for this purpose. However, when this wore out they could not get replacements.

They were critical and quite cynical about the previous lack of official interest and were still quite cautious about what could happen. However, this group were, above all, enthusiastic and ready to get involved in different sorts of programmes. Apart from these areas they were also interested in teaching literacy skills to others and receiving appropriate skills training themselves. They said that one of the major problems of the area is unemployment and in some cases alcoholism.

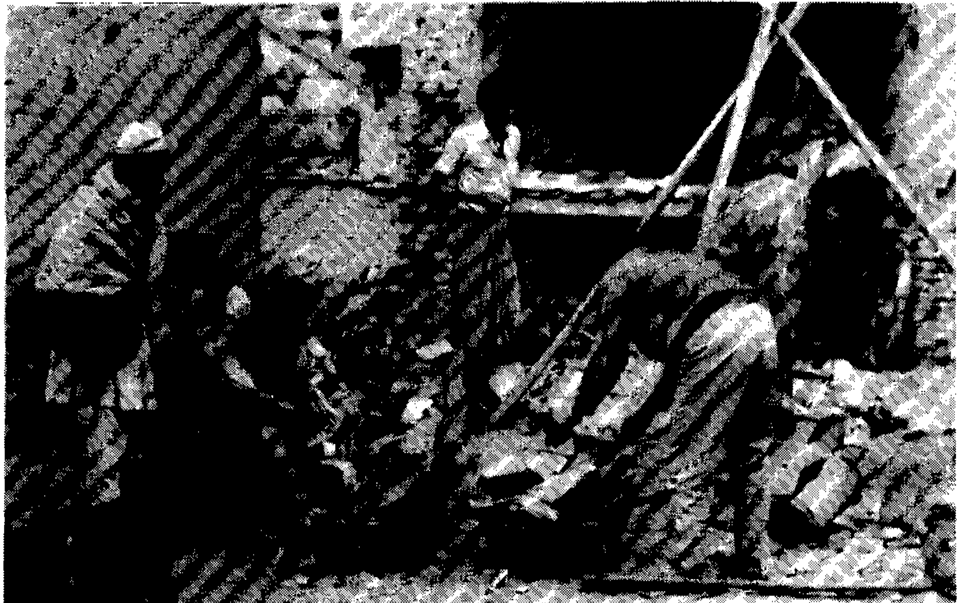
Regarding toilet use they say that young children are often frightened of falling into the toilets but that it is not difficult to train them to overcome this fear. More important, they felt, was that the lack of a good water supply caused people to use open spaces even when they had toilets. Often there is not enough water available to clean the toilets. As the toilets then smell bad people prefer to go outside.

Practical matters such as the lack of a suitable place to meet, lack of interest from the authorities and general disillusionment have led this committee to be run down. Previously they used to be able to meet in a guthi building but this has been stopped by the older people.

SOLID WASTE DISPOSAL AND ENVIRONMENTAL SANITATION

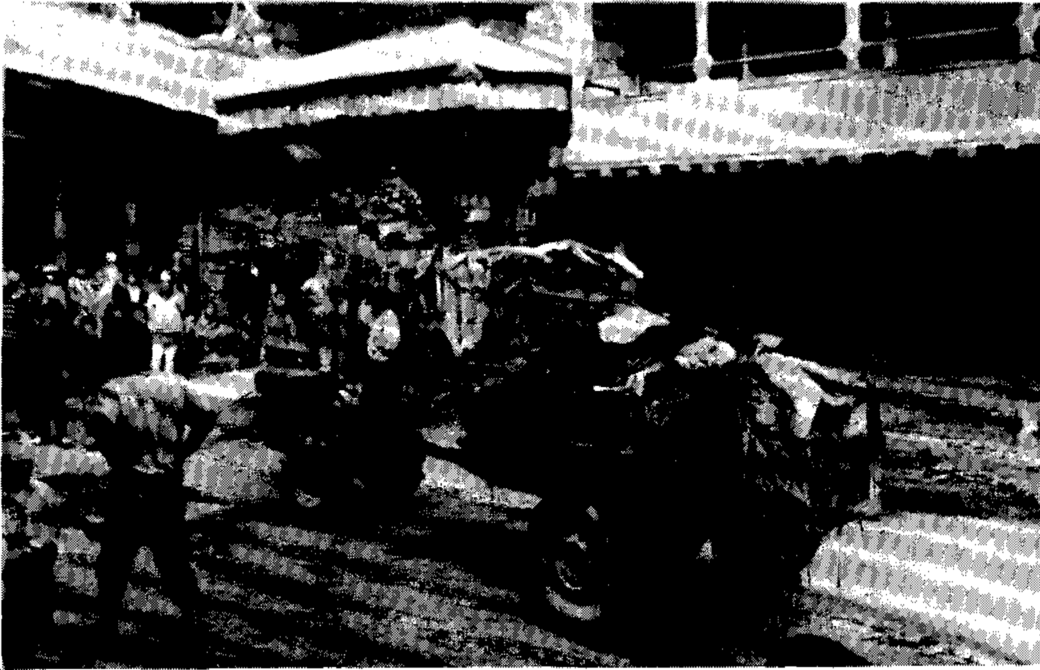
A SMALL SAAGA - THEY ARE OFTEN MUCH LARGER AND ATTRACT SCAVENGING DOGS, RATS AND OTHER PESTS.

RECYCLING WASTE



A NAUGA - FOR INTERNAL ASH AND SMALL WASTE DISPOSAL. ALWAYS FOUND UNDER THE STAIRS ON THE GROUND FLOOR.

SOLID WASTE



TRACTOR - TRAILER COLLECTING WASTE FROM AREAS IN LUKUSHI TOLE. THERE ARE PROBLEMS OF VEHICLE ACCESS TO SOME AREAS.

PODE (SWEEPER) WOMAN OFTEN THE PODES ARE EMPLOYED BY THE MUNICIPAL AUTHORITIES.

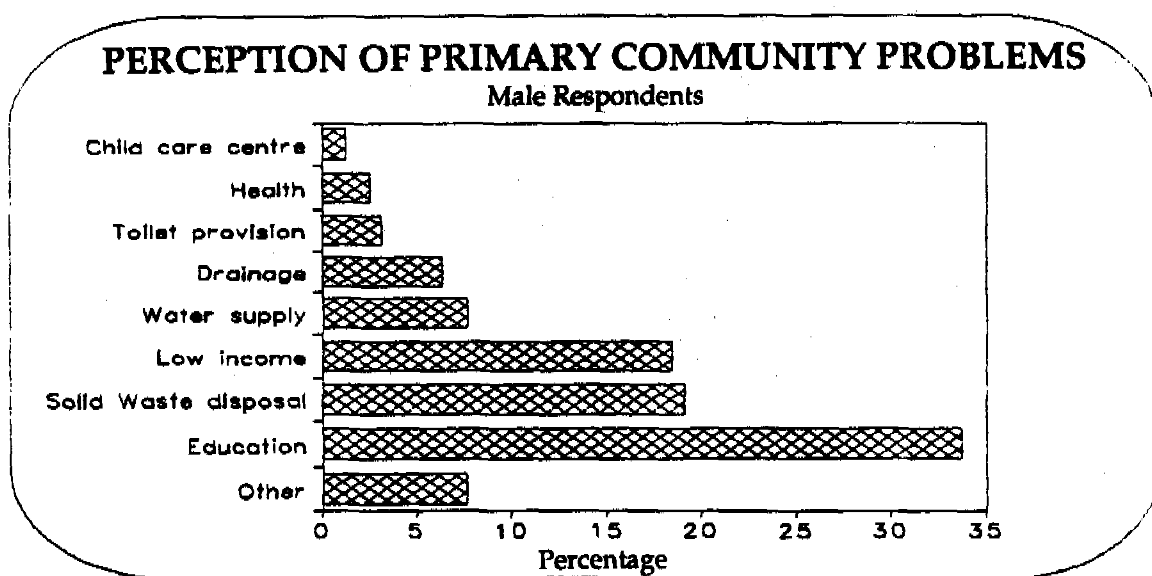
OPEN AREA IN TETA TOLE SHOWING OPEN SPACE WASTE DISPOSAL

SECTION 8: COMMUNITY PROBLEMS AND PRIORITIES

PERCEPTION OF COMMUNITY PROBLEMS

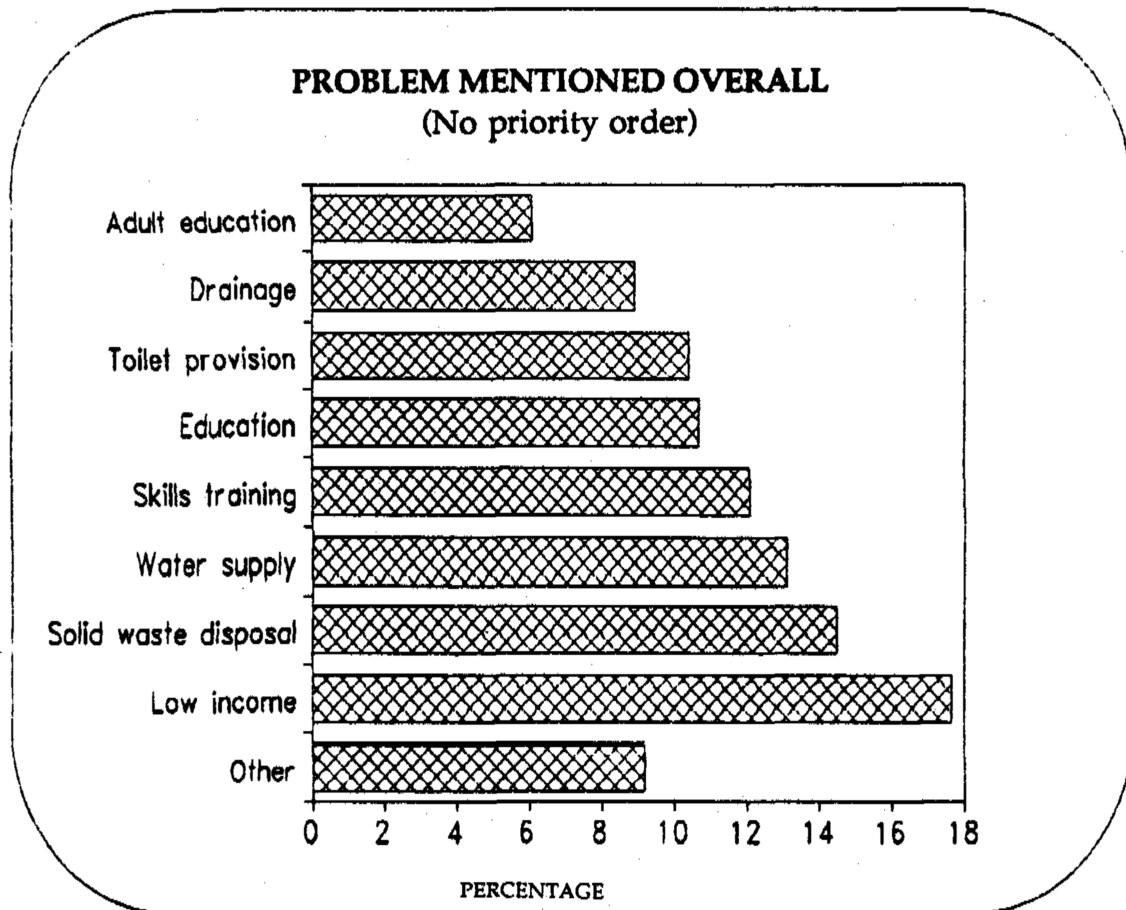
All men surveyed were asked for their own idea of what were the main problems for the community. In priority order the problems mentioned of primary importance overall were as illustrated.

FIGURE 15



Interestingly health care was not listed as a problem by many respondents and predictably perhaps child care provision was not seen to be a problem by the male respondents although it was often mentioned by the women in group discussions. Overall the most mentioned problem by all respondents taken as a whole was low income followed by water supply, solid waste disposal and toilet provision. All men were also asked whether they would get involved in community activities, overwhelmingly 89.6% said they would and 6.9% said they would not, 3.5% gave no response. The negative responses were all from the same Tole and this might need exploring further. However, the numbers are fairly insignificant and the responses come from the largest Tole. Problems perceived as only of minimal importance were land ownership, housing quality, and unemployment. It could be that as a separate question had already been asked about social problems, where unemployment was mentioned by most respondents, they did not feel it necessary to add this as a problem again in this final section.

FIGURE 16



The overall responses show quite clearly that income earning opportunities are one of the major priorities and in group discussions it was confirmed that people felt that if they could increase their disposable income they would be able to solve many of their other problems. Cost constraints on sending children to school might be removed, there would be more money available to provide nutritious food and the general quality of life would be improved. It is encouraging to note the relatively high priority given to solid waste disposal and water supply. This does indicate a level of community reponsibility which can be built on in the programme. As can be seen in the breakdown by Tole priorities obviously vary depending on the particular micro-level problems in each area. The survey responses were also looked at by Tole to see how priorities differed according to location, and in the case of Teta by caste, as all respondents from there were of the lowest caste. The table overleaf llustrates these responses.

TABLE 16. COMMUNITY PROBLEMS - BY TOLE

Primary Problem	Lukushi n = 110	Teta n = 17	Tyagal n = 7	Hak n = 18
Education	33.3	41.2	0.0	33.3
Low Income	21.8	5.8	14.	16.7
Solid Waste	16.4	11.8	42.8	33.3
Water Supply	7.3	5.8	28.6	5.6
Drainage	4.6	17.7	0.0	0.0
Toilet Provision	3.6	11.8	0.0	0.0
Other	13.0	5.9	14.3	11.1
	100.0%	100.0%	100.0%	100.0%

It can be clearly seen that for the people of Teta, education is the main problem. Most of the children who do not go to school in the pocket area are from Teta and they complain of ostracism if the children do try to attend school. Drainage is the next most important problem and this was discussed at some length in focus group interviews.

Women had fairly similar perceptions of the main community problems with education again receiving primary consideration. When women who did not send children to school were asked why, their main consideration was cost. Perhaps a combination of increased income earning opportunities in association with improvements in the school environment would do most to satisfy the felt needs of this community. Concentration on these areas would create the necessary receptive environment for other important components which might not be felt as high priority by the community.

For both men and women there is a complete breakdown by Tole and household of the major perceived problems. This sort of detail is clearly not needed in the report but could be useful for the programme when the finer details are being considered. Other baseline data, for example, the households where there are school age children not in school, are also available.

TABLE 17. PRIMARY COMMUNITY PROBLEMS - FEMALE RESPONDENTS

Problem	Frequency	Percentage
Education	53	33.9%
Income	29	18.6%
Solid Waste	29	18.6%
Water Supply	12	7.7%
Drainage	10	6.4%
Toilets	5	3.2%
Child care	2	1.3%
Health	4	2.6%
Other	12	7.7%
	156	100.0%

The female respondents were very positive about community based programmes in the area and 87.8% said they would like to get involved. When asked about what their priorities were if a programme were implemented the main priority for the majority was skills training and increased income (50.6%). Environmental sanitation was the priority for 16.2% and 16.2% said any programme would be well received. Water supply was the main priority for 5.1% and the remainder mentioned a variety of different possibilities.

As noted frequently throughout this report the community are interested and motivated to get involved in programmes for their area. There is little obvious friction although no doubt interest groups would emerge eventually and political alliances will undoubtedly be of importance with elections planned for 1991.

Interestingly although men readily identified influential men in the community, from which it was possible to draw out names for group discussions and for later identification by UNICEF for the programme, women would not identify influential women. The 100% response was 'don't know'. There are women who are influential but they are not recognised as such by their peers, at least not consciously. In group discussions the women would also not identify influential women without close probing. It would be interesting to explore this further but regrettably there was not enough time to do so in this study.

CHAPTER 3

CHILDBIRTH SURVEY

All women who had given birth within the last year were interviewed. In particular the survey aimed to discover whether there is any reason for choice of place of birth and to see whether the traditional birth attendant (TBA) is a significant provider of maternal health care in urban areas.

The main objectives of this study were:

1. To determine which factors influence women's choices about place of birth.

2. To determine to what extent TBAs are significant providers of maternal and child health services in urban area.

3. To identify which practices concerning childbirth or neonatal care are beneficial and which might be harmful.

4. To see whether training TBAs has an effect on the quality of the service they provide.

3.1. METHODOLOGY

Each female respondent in the general survey was asked whether there were any women in the household who had given birth within the last year and whether anyone in the household was pregnant. Twenty four women were identified, although the baseline survey identified thirty babies under the age of one year, so presumably in six cases (assuming no twins) either the interviewee forgot or was reluctant to identify the women. A structured questionnaire was then administered to the women. These women were asked a series of questions on care during childbirth and their attitudes to TBAs. For reasons of convenience these women are identified in this section of the report as 'postpartum'. Strictly speaking, however, they were not all postpartum as this covers only the 42 days following the birth.

Where TBAs were used and named they were then sought out for both a structured and unstructured interview which explored their practices. All interviews were done privately and were administered by a Newari interviewer who had children. One of them was also a staff nurse and she was used to conduct TBA interviews with the Principal Investigator. All eight pregnant women identified were also interviewed using a structured questionnaire. In view of the number of women in the area it is suspected that there is some reluctance to reveal early pregnancy. This shyness is not uncommon in many

cultures and there may be cultural beliefs surrounding the announcement of a pregnancy. Indeed, many women in Western societies wait until they feel that the danger of a miscarriage, in the uncertain early months, is largely over. There were problems though with the questionnaire and the interviewer's use of it. It was decided, therefore, not to include this data until the tools have been refined.

After the survey interviews were completed women were then invited to participate in focus group discussions which were split into hospital and home birth groups with a mixed group of the Pode women as the numbers involved were small.

The questionnaires and focus group guidelines have not been reproduced in the appendices for reasons of space but they are available, on request, to any interested person. The questionnaires were modelled on those developed by Dr Marta Levitt for her JSI study and subsequent doctoral thesis. Her generous help, and perceptive comments on this section of the report are gratefully acknowledged. Most of the comments have been incorporated as revisions in the text.

3.2. LIMITATIONS

The numbers involved in this part of the study are necessarily small. Therefore, while some general comments can be made no really statistically significant conclusions can be drawn. More emphasis was given to the qualitative data collection methods. This study is to be pursued in more depth by the Principal Investigator as part of a research degree. It is hoped in the future, that more in depth and valid data can be provided. This will be based on larger samples over a wider area and upon long-term follow up of identified women with participant observation of practising TBAs. The Principal Investigator is a former midwife and can comment on some of the practical elements of TBA care.

It is hoped to follow up this stage of the study in the other towns targeted by UNICEF, to see whether it is possible to draw any conclusions about childbirth behaviour in urban Nepal. Some data were not analysed as the numbers were too small to have any significance.

As this was only one part of the main study there was no detailed investigation of the training course and follow up from the trainers' side. Obviously this means that the information is subjective and liable to bias as the TBAs were mainly asked for their view of the training and were questioned on the basis of hypothetical or actual cases. The information on training should be considered with this limitation in mind.

3.3. PROFILE OF INTERVIEWED WOMEN

Altogether twenty-four women were interviewed. They came from two distinct groups. The majority (75%) were Newari of the Maharjan caste and the remainder (25%) were Podes (sweepers). The average age at marriage was ascertained for the group and this was 18.5 years for women and 23.45 for men, which is in line with overall averages in urban areas.

However, it was noted that the Podes marry at a younger age. For Pode women the average age at marriage was about 15 years and for men 20 years. This is more typical of rural figures and may reflect the lower educational level of Podes, most of whom never attended school.

Selected characteristics of interviewed women

Of the twenty four women interviewed 75% were illiterate and the remainder had been educated to between class 3 and class 9 standard. Only 29.2% of their husbands were illiterate, 18.2% had education between class 1-5, 36.7% had class 6-10 education, 10% had SLC and 4.5% had degrees.

There was a correlation between the education level of husband and wife and in no case was a literate woman married to an illiterate man. The more educated men had more educated wives.

TABLE 18. DISTRIBUTION OF RESPONDENTS BY AGE

Age Group	Percentage
15-19	12.5
20-24	29.2
25-29	20.8
30-34	29.2
35-39	8.3
40 +	0.0
Mean Age	26.9 years

Of the women interviewed only one was under 17 and 8.3% were over 35. Therefore 12.3% were at high risk because of age factors. At relative risk because of age were the 50% of women who were under 20 or over 30. The number of women with a child under the age of two has implications for child morbidity and mortality (see also Levitt 1987). In this area, in common with many other parts of Nepal, the youngest child is weaned when the mother knows she is

pregnant again and these children commonly suffer from under nutrition and susceptibility to infections.

TABLE 19. SELECTED CHARACTERISTICS OF RESPONDENTS

Literate	Respondents		25.0%
	Husbands		70.8%
Ethnicity	Newar	Maharjan	75.0%
	Newar	Pode	25.0%
Distribution of Total no. of pregnancies			
1			29.2%
2			29.2%
3			16.6%
4			4.2%
5			8.2%
6			4.2%
7			4.2%
8			0.0%
9			4.2%
Mean no. of pregnancies			2.87
% with 4 or more pregnancies			25.0%
% with last child under age 2			20.8%

Age at first pregnancy and infertility

The average age at first pregnancy overall was 20.7 yrs though again it was lower in the Pode area where it was 17.8 yrs. It is generally accepted that the higher and lower the ages at first pregnancy the greater the risk for both mother and child.

Questionnaires give a very static and fairly impersonal view of personal life histories but the following case study illustrates a number of features related to age and place of birth and the sadness of childbirth for many women in Nepal.

CASE STUDY

A 37 year old Maharjan woman became pregnant after sixteen years of marriage. In her anxiety to do the best for her child she chose to have antenatal care and delivery at a hospital. She was advised to have a Caesarean section. The only indication apparently being her age and that this was a precious baby. The hospital policy says that all Caesarean babies should be taken to Special Care immediately after birth. This baby girl was also taken to Special Care and died there, of an infection, after five days. The mother hardly saw the baby and the parents are deeply grieved at their loss. It is another statistic to add to the perinatal figures but, as always, a personal and poignant tragedy for the participants.

It can never be said, categorically, that one place of birth is better than another but this case study does beg the question whether both mother and child would have had a happier outcome had she chosen trained TBA-provided home care with less technical intervention and, therefore, less likelihood of iatrogenic problems. Without having access to the full facts and records, it is, of course, presumptuous to assume that the problem was related to hospital policy or care. It is, however, reasonable to wonder whether hospital care, in Nepal as in other countries, always puts the patient's interests first. In the practice of obstetrics, there can be great tensions between qualified medical personnel and what are often viewed as 'ignorant' and dangerous indigenous carers. The tensions apparent between midwives and obstetricians in the West are often not so different.

Fortunately, despite the personal longing to have a baby, childless couples are not normally ostracized in Newari society nor does the husband generally try to find another wife if they cannot have children. This is indeed unusual in a country which generally sets great importance on the desire to have children. One of the TBAs who was interviewed had never had a child although she had adopted one as a baby. She was accepted without question as a TBA by her clients and her biological childlessness was never an issue.

3.4. PREGNANCIES

The twenty-four women reported a total of sixty-four pregnancies of which sixty-two had resulted in a live birth and two babies had been stillborn. Of the sixty-two live births two babies subsequently died in the neonatal period (of fever and neonatal jaundice). No miscarriages or abortions were reported and it is suspected that this is inaccurate probably due to interviewee reluctance to discuss such private matters with strangers. It is certainly not surprising that no

abortions were reported as abortion is illegal in Nepal and it is unlikely that a woman would risk discussing this with an outsider.

3.5. TRADITIONAL BIRTH ATTENDANTS

There is a strong tradition of TBAs (known as aji in Newari) in the Maharjan areas, and most of the home births were attended by traditional birth attendants. The United Mission to Nepal has had a TBA training programme in this area since 1975 which means that the area is well serviced. Interviews with TBAs show some problems with factors such as traditional cord care and whilst the TBAs have a reasonably good awareness of cleanliness, they do not normally impart this information to the women who cut the cord. For cultural reasons the umbilical cord is normally cut by a women of the Kasai (butcher) caste after two to three days. This woman is known as a naini in Newari. In common with many other ethnic groups in Nepal, the Newars believe that the blood of childbirth is polluting and ritually impure tasks must be undertaken by the low caste women. The payment of a small fee cancels out this ritual debt (see Levitt, M.J., 1988).

Six TBAs were interviewed although there are many more in the area. These six were the ones who had been involved in a delivery in the pocket area over the last year. There were three untrained and three trained attendants. Percentages are fairly meaningless for such a small sample but some general observations are worth noting. All of the TBAs in this sample were illiterate but one was teaching herself to read and write with the help of her son. All the TBAs had been practising for more than ten years and in three cases they had been working for more than 25 years. They had all been taught by their mothers-in-law but none of them were teaching anyone else. This may indicate that, over time, there is less interest in continuing this tradition. Some of the TBAs had asked their daughters-in-law if they wanted to learn but in most cases there was no interest. The daughters-in-law feel it is a 'dirty' job. In one case there was some interest but no practical teaching had yet been started.

The trained TBAs had all attended the UMN training programme within the last five years. As this part of the study was only a section of the overall report there was, regrettably, not time to fully investigate the full details of the training, nor to glean the trainers' views of the TBAs capabilities before and after training. This is a serious limitation and obviously would be redressed in a longer study. The information on training was therefore gleaned from the TBAs themselves and through some conversations with CDHP staff. The information is, hence, one sided and necessarily subjective.

Antenatal Care

The trained TBAs report giving the following services to pregnant women: diagnosis of pregnancy, advice about diet, checking the position of the baby and massaging with oil. One of the trained TBAs reported recommending alcohol to the pregnant mother to make the baby's eyes bright and there seemed to be a general liking for alcohol during pregnancy, although not to excess. None of them reported trying to manipulate the fetal position or any other potentially dangerous procedure. They would diagnose pregnancy symptomatically by a history of menstrual cessation, morning sickness and breast changes. The danger signs they would recognise during pregnancy included swelling and bleeding and they would refer these to hospital. One trained TBA said she would do a vaginal examination if there was early rupture of membranes. She said she does not wash her hands and uses oil for the examination.

The untrained TBAs gave the same services but were more inclined to do pujas during pregnancy and to prohibit certain foods such as chilli as they believe this gets through to the baby and can cause stillbirth. One of the untrained TBAs would externally manipulate the fetus for a malpresentation. For bleeding or prolonged labour they would refer the mother to hospital. Antenatally, however, TBAs say they are rarely called and the trained TBAs felt there was little need to visit. Two out of the three untrained TBAs felt they should try to see the pregnant women about once a month. Services provided during these visits were mainly of a ritual nature.

Intrapartum Care

Only one untrained TBA would attend births in the Pode area. She said that she does not look down on the Pode women but other TBAs will not go as they feel the Podes are dirty and inferior. This woman does not want training. She maintains that she has no time, and she is reluctant to liaise with the hospital. A longer acquaintance, nevertheless, might have revealed more deep-seated reasons for her reluctance. Overall, however, some of her practices were better than those of the trained TBAs. She recommended that the mother breast feed immediately after birth whereas some of the other TBAs recommend waiting for twenty-four hours as they think colostrum is harmful to the baby. Instead they recommend that the mother either gives sugar water or biscuits dipped in sweet water until she starts feeding. This woman was also the only one to ask my opinion of her practices and what I thought of not boiling blades.

However, this same TBA, while recognising the signs of pre-eclampsia, would do nothing about it. Pre-eclampsia is a syndrome only seen in pregnancy, and the early postpartum period, which can result in epileptic type fits and in extreme cases, death of both mother and child. Early signs include oedema, headaches, raised blood pressure and proteinurea. This TBA would not refer the mother to

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hospital believing that the baby has been cursed by Narayan and will die anyway. Much information reported about cultural beliefs relating to childbirth has not been included for reasons of space and, although interesting, it is not always relevant to the objectives of this part of the study. In many cases the beliefs would have no effect on outcome whereas in a case like pre-eclampsia, traditional beliefs can be potentially fatal as preventable tragedies could be avoided.

In common with the others, this untrained TBA does not cut the cord but gets the family to call the naini (a woman of the Kasai - butcher caste). She says, also in common with the others, that the naini uses an unboiled blade or bamboo knife. The cord is generally cut after two to three days. The naini will not come to the Pode area and the women there cut the cord with whatever is available. The Kasai caste ranks higher than the Pode in the Newari structure so the low caste Kasai women will not perform this service for the even lower caste Pode women. Some Pode women said there is a Pode women who will come to cut the cord if they give birth at home.

During delivery the TBAs would interfere little with the natural process and most would refer retained placenta and bleeding to the hospital. One untrained TBA said that for retained placenta she would give the women chura (beaten rice) to eat and, if this did not work, she would put rice on a nanglo (flat tray for winnowing and sorting grains) then wash water around the nanglo and give this water to the mother to drink. This was presumably to induce vomiting although, despite a direct question, she did not acknowledge this as the reason. Other TBAs mentioned trying to induce vomiting to expel the placenta. Physiologically this is quite sound as the downward movement of the diaphragm, which increases intra-abdominal pressure, can help the uterus to expel the placenta. In other cultures blowing into bottles and other similar techniques are used. For cord cutting, only one of the TBAs said she would cut the cord herself. All the others would call the naini. However, two of the trained TBAs said they would suggest to the family that the naini is called straight away whereas all the others would wait the two to three days prescribed by custom.

Postpartum Care

Postpartum the TBA's role seems fairly minimal, most reported that they would stay for 2-4 hours after the birth but only two would visit on subsequent days. The family seems to take on most of the postpartum care and the mother sits in her sun to oil the baby. The TBAs encourage this and it is undoubtedly a very healthy and useful practice encouraging close bonding and developing the baby's sense of security as well as the obvious enjoyment that both receive.

Traditional Birth Attendant Training

Due to the tight time schedule there was not the opportunity to fully investigate the UMN training programme. Hence the information that follows is gleaned mainly from the TBAs themselves. Clearly the TBAs enjoyed the prestige of having attended a course but their recall seemed to be poor and although follow up meetings were arranged by CDHP they were not well attended, at least by these particular TBAs. While enthusiasm was expressed for continued association with the trainers other priorities intervened. Coordinating meetings at a time convenient to the TBAs and finding a date that would be easily remembered was a frustration expressed by the CDHP staff.

A problem with the training programme which surfaced during interviews is that of participant comprehension. One of the TBAs said that she had learned nothing from the course (although she proudly showed us her letter of attendance) as it had been conducted in Nepali, which she does not speak. She said that there was a man there who sometimes translated but it was clear that he did not understand the terminology and there was a natural reluctance to press for explanation on 'women's matters'.

The other two TBAs had found the course useful but admitted that they had forgotten some of the things they were taught. One of the three untrained TBAs would like to be trained and the other two said they 'had no time'. There was reluctance by some TBAs to get involved with the hospital as they felt they are looked down on by the educated staff there. Often, if they accompany a client to the hospital, they identify themselves as a relative and not as an aji. They say that if they are identified as aji the staff treat them badly. Of course it is understood that older and poorly educated women may have particular problems of recall about courses they attended some time ago but there is undoubtedly some substance to their comments.

Some TBAs said that they had spoken to the naini about boiling the blade but apparently the nainis get angry and tell them not to tell them how to do their job. The nainis use thread to tie the cord and also use a one rupee coin to cut the cord on. It might be worth setting up a very short course just on sterilisation techniques for nainis in order to teach them to boil the coin, thread and blade. UMN currently teach the TBAs to cut the cord themselves but it is clear from interviewing the TBAs in this area that they will not take on this task. It is better to accept that there may not be a change in habits as it is closely bound up with the belief in pollution and loss of caste.

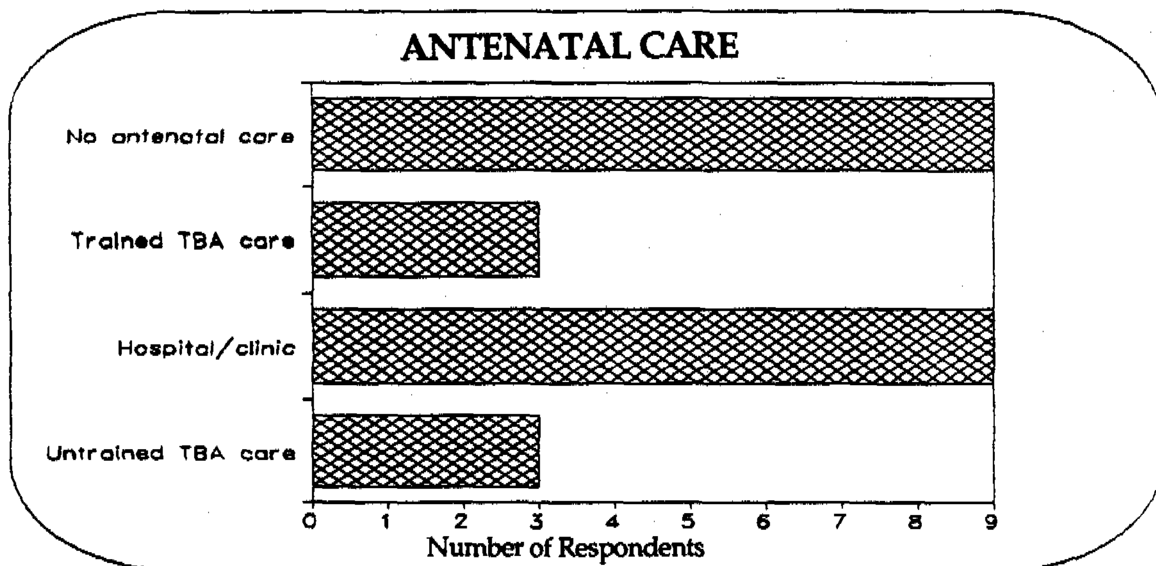
These points are mentioned not to unduly criticise UMN, which has done excellent and pioneering work in the field of TBA training, but to highlight some relevant points which could be taken into consideration in future course planning. Most particularly, it should be acknowledged that people are generally slow to change ingrained cultural practices. While things may change over the

very long term, for the short term, and for the sake of the newborn it would be advantageous and cost effective to teach Kasai women the simple technique of safe cord cutting.

3.6. PATTERNS OF ANTENATAL CARE

There is not much of a tradition of antenatal care in this area although most of the TBAs interviewed tried to make contact with the pregnant women prior to delivery. The services they provided were mainly advice on diet, pujas and a brief examination. There was some recognition of conditions they should refer to a hospital and antepartum bleeding, severe swelling and the baby's lack of movement were all mentioned.

FIGURE 17



There is a definite correlation between eventual delivery attendance by a trained TBA or hospital and the frequency of antenatal care. Of the women who went to hospital for their last delivery, two had antenatal care with trained TBAs, seven had antenatal care at hospital and two had no antenatal care.

Of the eight women who delivered at home with trained TBAs, five had been seen antenatally by the TBA and two had antenatal hospital care. Only one woman had a home delivery with a trained TBA and no antenatal care. Of the five women who delivered with untrained TBAs none had antenatal care. This contrasts with the untrained TBAs' responses about antenatal visits. In the Pode area, where women would use the untrained TBA who would come to the area, the incidence of antenatal care was lowest.

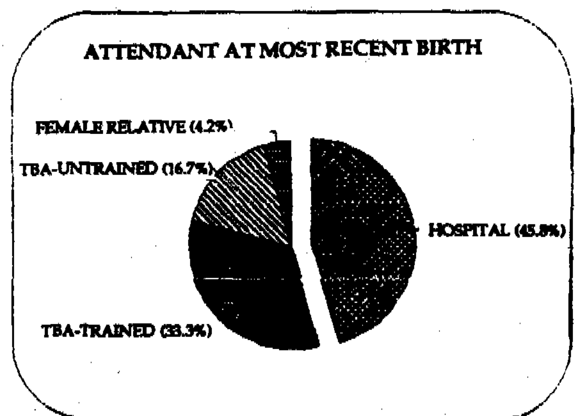
The impression given was that all the TBAs had a fairly limited understanding of high risk referral antenatally and, while recognising symptoms of pre-eclampsia or antepartum bleeding, they rarely reported doing anything about it. There does seem to be an inherent fatalism about what will happen to the parturient woman. Unlike in many other societies, and particularly unlike the litigation conscious West, if something does go wrong, the TBA is not blamed by the family, even if the result is a maternal death.

The TBAs restricted their antenatal care mainly to giving advice on food taboos - to avoid 'hot' foods (chilli, chakur) which they feel could harm the baby - and to doing pujas to the Aji-Ma (the deity of childbirth, originally the goddess who prevented smallpox). However, some did send clients to hospital for tetanus shots, or the women went of their own accord. They did not know the injections were for tetanus but all TBAs knew that pregnant women should have injections. Two, however, reported that they did not believe in immunisations for either the mother or baby as they felt that injections were harmful. In discussing tetanus the main problem may have been the interviewer's description of the symptoms rather than a lack of understanding of the syndrome by TBAs. Hence this data should be treated with caution.

3.7. PLACE OF BIRTH

Even in this urban area, with easy access to hospitals, private doctors and clinics there is an overall preference to give birth at home. Of total sixty four births reported, thirty eight took place at house and the remaining twenty six took place in hospital. There is, however, a tendency for more recent births to take place in hospital. This could coincide with higher levels of education amongst the younger women.

FIGURE 18



There is a positive correlation between education level and choice of hospital, and also between caste and hospital use. In the Pode area five of the seven women had used hospitals for their last delivery. There was a preference to have the first child in hospital and, if that was problem free, to have the remaining ones at home. The Podes do not have access to trained TBAs as these are higher caste women who will not come to Pode houses. The Pode women who did give birth at home were attended by an untrained Maharjan TBA but she was the only one who would come to the Pode area. This TBA was very highly thought of by the Pode women because of her kind nature and the fact that she would come whenever called despite caste barriers. In common with most of the TBAs, however, she would not cut the cord.

Of the Maharjan women giving birth in hospital it was noted that the majority of these had some education. The average education level for women from the Maharjan area who gave birth in hospital was class 3 whereas the majority giving birth at home were illiterate.

There was a positive correlation between female education levels and place of birth. Of the six literate women in the sample all chose to go to hospital, this compares with 27.78% of the illiterate women.

TABLE 20. CORRELATION BETWEEN LITERACY AND PLACE OF BIRTH

	Literate n = 6	Illiterate n = 18
Trained TBA delivery	0%	44.4%
Untrained TBA delivery	0%	27.8%
Hospital	100%	27.8%
	100%	100.0%

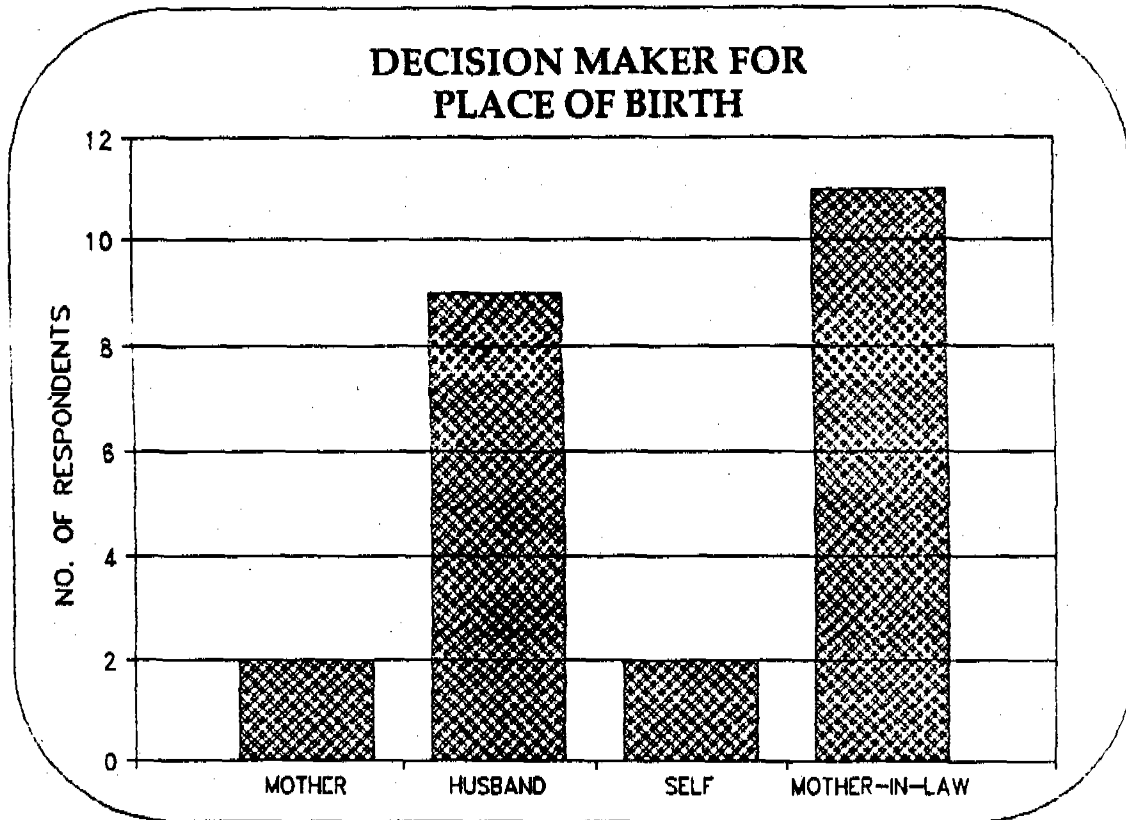
There was no particular correlation between husband's literacy and choice of birth attendant. Of the five deliveries with untrained TBAs three of the husbands were literate. Six husbands were literate out of the eight trained TBA deliveries. However, as previously mentioned the Pode women do not have access to trained TBAs and, in some cases, they had literate husbands.

Overall, it seems that hospital deliveries are becoming more popular. Educated women prefer hospitals as do Pode women who do not have access to trained TBAs. Younger women having their first child were more inclined to use the hospital for the delivery.

Decision making about place of birth.

As noted in another study (Levitt 1987) the mother-in-law is still one of the key decision makers about where the women should give birth. In cases where complications arose the husband seemed to take the decision. In the Pode households, which tended to be more 'nuclear', either the woman herself or her husband took the decision. This confirms that any programme wanting to change attitudes towards childbirth behaviour has to include women who are influential with the mother, particularly their mothers-in-law. Primipara are particularly influenced by older relatives as they have no experience of childbirth.

FIGURE 19



The mother-in-law is, of course, also the husband's mother and it is likely that he may have been influenced by her advice. The woman herself, or her kin, have little to do with this decision.

3.8. PATTERNS OF INTRAPARTUM CARE

All the TBAs reported giving psychological and physical support to the labouring mother. The support was in the form of pujas to the important deities and massage and encouragement to the mother. Husbands are generally not present at the birth if there are other female relatives. The TBAs do not do any internal examinations and interfere minimally with the progress of labour. The favoured birth position is with the mother kneeling and the TBA delivering from behind, guiding the head out slowly and not pulling on the shoulders. The delivery technique reported seemed very sound and non invasive. If the placenta is not easily delivered the TBA may pull on the cord and massage the fundus. If it is retained they send the mother to hospital. However, all reported a reluctance to liaise with the hospital as they said the hospital staff do not respect them and, often, the TBAs do not understand Nepali. If anything goes wrong with either the mother or the baby the TBA is not blamed. It is seen to be the result of fate or divine intervention.

Cord care

In traditional Newari households the placenta is left attached to the baby for three days following the birth and is placed in an earthenware dish. Reasons given for this vary but the most common one is that Ganesh will be angry if the cord is cut earlier. Another reason given is that the mother will die if the cord is cut earlier. On the third day a women of the Kasai (butcher) caste is called and she then cuts the cord with a blade. On interviewing these women, who are know as nainis, it transpired that they do not boil the blade, and in former times would a bamboo sliver, a sickle or use a knife that had been used for meat cutting. Now they tend to use a razor blade and coin, with the razor blades being reused. During the course of this study three nainis were interviewed and their technique is as described here. One showed me the blade she uses and, clearly, it had been used frequently and only superficially cleansed by wiping. The TBAs apparently rarely communicate with the nainis and therefore their knowledge about the sterilisation of cutting instruments is unused. For performing this polluting task the naini is normally paid about five rupees by the family. Also the TBA is often not present when the naini cuts the cord.

A further problem arises in the Pode area as neither the nainis nor the TBA will cut the cord. Either the woman herself does it or one of the Pode women who traditionally takes on this job will come. Interestingly, people who gave birth in hospital did not have any problem with the cord being cut straight away. It has been noted by several observers that women are quite ready to leave their 'cultural baggage' at the door when they enter modern medical facilities (Levitt, 1988 and others).

The women who did not give birth in hospital were asked who cut the cord, when and with what.

TABLE 21. PERSON WHO CUT THE UMBILICAL CORD

Number of cases: 13

Person	Percent
Naini	69.2%
TBA	23.0%
Self	7.8%
Total	100.0%

Without a much more detailed study it is not possible to know whether tetanus is a problem in this community. However, referring back to the causes of death,

many women do not know why their children died and they probably did not go to a hospital or register the death. Babies could also have died before the really overt signs of tetanus became apparent.

In ten cases an unboiled instrument was used and in the remainder the instrument was boiled although it is not clear how this was done as the technique was not observed. TBAs cut the cord in all cases where a boiled instrument was used. However, in some cases where trained TBAs are doing the deliveries they still retain the practice of calling the naini to cut the cord. This could be a significant factor in perinatal morbidity. It should be acknowledged that these practices are unlikely to change immediately and the nainis should therefore receive some training.

However, not all women leave the placenta for two or three days before getting the cord cut. Of the 13 cases seven had the cord cut immediately and the remainder waited 2-4 days before calling the naini.

Cynthia Hale (UMN) in her comprehensive overview of TBA training in Lalitpur district also notes the problem of unsterile cord cutting in areas where the Kasai women are used. In other areas of the district sterile techniques have been taught with more success (see bibliography for reference).

It would be very interesting to get some expert medical advice about the likely effect on neonatal tetanus rates of the practice of leaving the cord uncut for three days, when the placenta is left in an earthenware container. The placenta, lying in the container, would theoretically be a good host for the anaerobic bacillus. Alternatively the drying of the cord in the intervening period could actually protect against tetanus.

3.9. PATTERNS OF POSTPARTUM CARE

The TBAs were imprecise about what to do for postpartum haemorrhage or for resuscitation of the newborn. Perhaps the problem was in the phrasing or interpretation of the questions but it was felt that the TBAs interviewed could deal only with normal deliveries. However, this is may not be the problem it would be in rural areas because of the proximity to medical facilities. Most postpartum care is undertaken by relatives and the mother will massage the newborn baby.

Although the proximity to medical facilities is beneficial it has already been noted that TBAs are sometimes reluctant to refer clients. With this in mind it would be beneficial to concentrate more on emergency management of home deliveries as some of the TBAs will encounter and try to deal with potentially dangerous obstetric emergencies. This is not advocating the provision of oxytocic drugs or instruments but is suggesting the teaching of techniques which require no more

than the five senses. It would be beneficial, for example, to teach the appropriate times for fundal massage, how to identify different types of postpartum bleeding and first aid measures for a collapsed patient. Whatever the TBA's advice the relatives will quite often take the woman to hospital if an emergency occurs.

Some of the TBAs do give positive advice on immunisation, diarrhoea management and family planning. However, some TBAs appear to be giving inappropriate advice. One of the older TBAs advises the mothers not to get the children immunised as she thinks it is harmful. Two TBAs reported giving ORS (oral rehydration solution) or Jeevan Jal to the mother of the child rather than the child itself. It is certainly beneficial to give extra fluid to the breastfeeding mother of a dehydrated child but the child will not get essential salts if the electrolytes are given only to the mother. ORS is, of course, not advisable for very young babies, without close supervision, because of the dangers of hypernatraemia, but these two TBAs did not believe that extra fluid should be given to the child at any age.

This is not meant only to highlight the gaps in the TBA's knowledge. Most of them have been providing an excellent service and practising safe techniques for years. As always, however, it is easier to point out the areas that still need some attention rather than to concentrate on the vast majority of their practices which are very sound. As David Werner points out in 'Helping Health Workers Learn' the potentially dangerous practices have to be separated out from those which are positively useful and those which are not useful but do no harm.

In the majority of cases the TBAs provide a safe and satisfactory service to their clients. They are well respected locally and women feel secure with these experienced, older women from their own cultural background. The TBA will continue to be a significant provider of services in the urban area and her skills and expertise could be further developed to the overall benefit of local families.

3.10. KNOWLEDGE OF FAMILY PLANNING

The majority of the women interviewed could name different family planning methods. In order of importance these were sterilisation (female), pills, depo-provera and condoms. Three of the women had heard of Norplant (all from the radio). Nearly all of the women had gained their knowledge about family planning from friends or relatives. Very few mentioned 'media' methods of promoting family planning and even fewer mentioned health workers. This demonstrates the importance of informal methods of spreading health messages and that media approaches to family planning promotion still needs strengthening.

Only three of the 24 women were actually practising an artificial method of family planning. The remainder said they either wanted more children or that

they would use lactation to prevent conception. One Pode woman who had nine children and who did not want any more was going to use lactation as the only method of preventing conception.

Obviously, although messages about family planning have been received in this area, they are not always acted on for a complex variety of reasons. It is generally accepted that until the general socio-economic condition of a group changes for the better there are unlikely to be great strides in reducing the number of children. In this impoverished urban setting, children still provide security and have an economic value which cannot be ignored.

SUMMARY OF GROUP DISCUSSIONS ON CHILDBIRTH

Three group discussions were held with postpartum women. One group consisted of women in the main area who had given birth in hospital. The second group was of women who had given birth at home and the third group was a combined group of women from Teta who had given birth at hospital and at home. The main purpose was to explore attitudes to place of birth and to discuss attitudes related to traditional birth attendants.

Group 1 - Hospital Births

Six participants

This hospital birth group consisted mainly of 'middle class' Maharjan women. Their level of education was higher than the other groups and they displayed awareness of health issues and environmental sanitation. Their economic status was higher than the other groups so that cost was not a factor in their choice of place of birth.

1. Reasons for choice. The women in this group said that the main reason they chose the hospital was fear of delivery problems, specifically prolonged labour, postpartum bleeding and retained placenta. They also expressed confidence in modern medical facilities and the knowledge of medical staff. They say that giving birth at home is dangerous as noone knows how to cope with delivery problems. The drawbacks to using the hospital concerned lack of privacy and the shame the women felt at having to show their bodies to male doctors and trainees. Women also complained about the perineal stitches. For most of them this was the main problem that had arisen. As episiotomies are mandatory for primipara it is difficult to avoid. Undoubtedly, many women are subjected to unnecessary procedures which they would have avoided at home. However, many women would also have had perineal stitching for tears. It is difficult, however, to prevent certain 'myths' developing about what happens in the hospital setting and women who have not had exposure to hospitals before are likely to be particularly apprehensive. Nonetheless, most of them felt happy about going to the hospital for the next delivery.

2. Antenatal care. All the women in the group had antenatal care. They were aware of the need for a balanced diet and mentioned foods like green vegetables, meat and milk. Informally they get advice from their mothers and mothers-in-laws when they are pregnant. Individually, they avoid foods commonly 'prohibited' to pregnant women like chilli and timur. They believe that chilli may burn the fetus and that timur could induce miscarriage. Postpartum food restrictions are also practised, mainly because of the effect the foods are thought to have on the breastmilk. A full discussion of the classification of different types of food was not possible but,

in this community at least, healthy foods were not prohibited either pre or postpartum. The belief that pregnancy is a 'hot' condition is common in other parts of Asia and foods classified as 'hot' are normally avoided.

3. Cord care. None of the women in the group felt it was necessary to have the naini touch the cord and they were not concerned that it was cut straight away in the hospital. It was reported in another group discussion (on health) that women felt that the naini should touch the cord, otherwise the mother might die. This does not seem to have been a commonly held belief though as none of the postpartum groups reported it.

4. Attitudes to TBAs. While they would not use the TBA for delivery they did still consult her about child health problems - particularly diarrhoea. If the TBA was unable to cure the child they would give Jeevan Jal and then take it to a doctor. All of the women felt that the TBA was an important person in the community and all were in favour of more training for them. Despite not using them all the women knew the names of the popular aji in the community. It was noted in the health groups that the aji is popular as a healer, specifically for child illnesses. For this reason it is clearly beneficial to offer more training in preventive and curative child health.

5. All the women were interested in child care provision so that they could pursue income earning opportunities. This was common to all the groups which consisted of younger women.

Group 2 - Home Births

Six participants.

In contrast, all the women in this group were uneducated and of a lower economic status.

1. Reasons for choice. The main reasons for choosing to give birth at home were economy and a feeling of security. The women in this group have heard that it is very expensive to go to the hospital and they would rather save their money by staying at home. All the women in this group were in the low income category. Another factor which stopped them using the hospital was the attitude of the staff. The women feel that staff will treat them badly because they are poor. They have also heard about stitching and said that if they stay at home they will not need stitches. All of them would prefer to have their next baby at home.

2. Antenatal care. Most of the women felt that antenatal care was not necessary although two of them had gone to the Tyagal clinic. They took advice instead from female relatives and received the same advice on food restrictions. They were all aware of the need for a balanced diet during

pregnancy but said that they could not afford to supplement their diet. All felt that women should work right through pregnancy so that they would have an easy birth.

3. Use of TBAs. Apart from calling the aji for the birth, women in this group would also use her for child health problems. They also feared bleeding and retained placenta but felt that the aji could cure bleeding by doing a puja. For retained placenta they would go to the hospital. The women in this group had mainly used trained TBAs. They did not feel, however, that the ajis need more training as 'they know everything'.

4. Cord care. All the women had followed traditional cord care practices leaving the placenta uncut for three to four days and then calling the naini. They thought that if the naini did not touch the cord the baby might die after two or three months.

5. Immunisation. Women had mixed attitudes to immunisation. Some felt that babies who were immunised were more prone to illness and had not had subsequent children immunised. Some of the women in this group had been immunised during pregnancy, they thought to avoid tetanus and jaundice.

Group 3 - Home and Hospital Births (Teta Tole).

Six participants

All the women in this group were from the most socially disadvantaged group and all but one was illiterate.

1. Reasons for choice. There were mixed attitudes to home and hospital birth but some common themes emerged. There was a feeling of security about giving birth at home in familiar settings. However, one constraint to home birth was that only one aji would come to the area. The women in this group have a higher average number of children than other groups because although they have heard about family planning, they do not know how to obtain it, and think anyway that children are 'god's gift' and that they should not be prevented. They say that some of the younger women use pills but the older ones will not. The women in this area who did go to hospital went to Thapathali for economic reasons. They say that Patan is expensive and sometimes they are ostracised there. At Thapathali noone knows who they are.

   Generally they said they have few problems with childbirth except for social problems related to caste (higher caste people say they give birth like dogs). They say this is how higher caste people view them and they are generally pessimistic about there ever being a change in attitudes. They were all full of

praise for the aji who will come to their area but they know that she is an exception. As noted in the survey data most of the Pode women use the hospital but the women with more children would call the aji as they had never given birth in the hospital. The younger Pode women had all used hospitals for their first and subsequent deliveries.

2. Antenatal care. These women do not follow the same food prohibitions as the Maharjan women and they will eat 'hot' foods. They also eat soil during pregnancy to make the baby strong. None of them had immunisations during pregnancy as they are frightened of them, believing that it will hurt and prevent them from working. There was no appreciation of the reason for immunisation. They will get the children immunised if someone comes to the area but they say that these days the health workers only come once a year. They say that they do not have time to take children for immunisation and are reluctant to go to the clinic for fear of being ostracised.

3. Cord care. They follow the practice of leaving the cord uncut for some days. They then either cut it themselves with whatever is available or there is one Pode women who will take on the role of naini.

RECOMMENDATIONS - CHILDBIRTH

1. As the TBA is an important person in this community, training should be continued but with more emphasis on recognition of high risk pregnancies. Supervision and follow up is a problem as some of the TBAs feel that once they have been trained they do not need further contact with the trainers. However, they often have poor recall and need constant supervision to reinforce subjects like immunisation.

2. As the practices at the time of delivery are sound and non invasive little needs to be done in this field except for addressing the problem of cord care. There is a real reluctance to cut the cord and while some TBAs can be persuaded to call the naini earlier, only one will cut the cord herself. A short course could be provided for the nainis as it involves teaching only one technique. Practices might change over time but, currently, the naini is the most important person involved in cord care and she has no knowledge of safe sterilisation procedures.

3. TBAs should be more involved in giving appropriate postpartum advice and should have more training in the management of obstetric emergencies. Some of them could be more influential in promoting family planning. More training needs to be provided on prevention and treatment of diarrhoea as some TBAs are giving inappropriate advice.

4. Mothers-in-law should be involved in MCH activities as they are influential in determining advice given to the mother, place of birth and care of the newborn.

5. More liaison with the hospital might overcome some of the TBAs' reluctance to refer cases. CDHP does arrange visits but it is difficult to get the TBAs together and the TBAs' expressed desire for better cooperation does not always translate into practice. This is a difficult problem to address.

6. As women also choose hospital births it would be appropriate to pay attention to the most common criticisms - lack of privacy, high cost, attitudes of medical staff and blanket policies such as episiotomies for primipara which cause distress and may not always be necessary.

7. The low caste women have difficulty securing the services of TBAs and, for that reason, use the untrained TBA who will come to their area. It would be worth spending more time with this woman, and there may be others, to persuade her to attend a training course. Most younger, low caste women will probably continue to use the hospital at Thapathali.

8. Recommendations designed to improve the quality of care provided by TBAs cannot be seen in isolation from other sections of this report. As has

been noted one of the TBAs has taken the initiative to learn literacy skills. Priority should be given to TBAs in any planned adult education programmes, if they express interest. This could be one of the most important factors in helping to improve maternal and child health in this area. If the TBAs are literate they will have access to a wide range of information previously unknown to them. Education for the low caste and illiterate mothers is also of extreme importance in helping to improve the general well being of their families.

9. As the study was necessarily short term it would be interesting to have some follow up to see if patterns change over time. In general, however, it can be concluded that the TBA is still a significant provider of maternal and child health care and is likely to remain so for the more poorly educated women. In recognition of this she should be targeted as a key contact for health programmes.

CHAPTER 4

CONCLUSIONS AND RECOMMENDATIONS

The following information incorporates recommendations and suggestions already made in the main text and new recommendations based on overall findings.

Overall programme implementation in this area will benefit from a number of factors. It is a small, well defined area with a socially and economically homogenous population. The community, as a whole, is responsive and willing to identify and effect changes for individual and community improvements. Perception and enthusiasm is evident in group discussions. They are, as has been noted in other areas 'experts in their own reality' (Bosnjak in Harpham et al). A number of preconceptions inherent in the study design had to be dropped because there was not the reluctance, for example, to build toilets that had been expected.

The main division that has to be recognised is the social cleavage between the Pode community and the main farmers area. There is little interaction between these communities and different approaches will have to be adopted without going to the extreme of setting up separate programmes for each group. In Kumbeshwar, a sweepers area in Ward 22 where a separate school exclusively for Pode children has been set up, it has been found that other groups now want to use the facilities. It may be possible therefore, that programmes provided for the benefit of the whole community may foster some social integration.

Considering the proposed programme (as outlined in December 1989 in a memorandum by Isabel Crowley) and the programme objectives, and in consideration of the findings of the survey and KAP study, the following recommendations are made:

1. ENVIRONMENTAL SANITATION

Courtyard rehabilitation

This will be a popular component because of the overall effect it will have on improving the physical environment. The labour input required is almost certain to be met, particularly if the young people of the area are mobilised. It is noted that garbage disposal has to be made available to fulfil the criteria laid down by UNICEF and the Solid Waste Management and Resource Centre. In light of discussions with the community, acceptable options would be the provision of small bins throughout the area and the provision of more yellow

containers (as long as they are not placed too close to houses.) The Solid Waste Committee which the young people established could be requested to come up with proposals for regular emptying of the bins. If they were provided with necessary equipment i.e. handcarts, they may well assume this responsibility themselves. However, to be sustainable this function probably has to be built into the services provided by the municipal authorities.

It has already been proposed that courtyard design should be modified to allow for sullage and rainwater drainage and it is confirmed in the baseline survey that this is a significant problem.

Drainage

It is confirmed that drainage is a major problem, especially in the Teta area. Without improvements, in the Teta area particularly, almost none of the other environmental sanitation activities are worth pursuing. Labour contribution from the community would be forthcoming but monetary contributions may be more difficult to obtain. In the sweepers area, however drainage is one of the main perceived problems and they may be prepared to contribute financially.

Brick Paving

This is another essential component of overall physical improvement. This paving is not perceived as a particular problem but, if carried out in conjunction with other physical improvements, a labour contribution may be forthcoming. If areas currently used as open space toilets are to be paved it should be undertaken in conjunction with better toilet provision and installation of adequate sewerage systems.

Well Maintenance

Until the supply of piped water is improved this is an essential activity as well water is still being used for most washing activities and is also used for drinking during periods of shortage. No water quality tests were conducted but it is very likely that the water is highly contaminated. The main problems will not be in the rehabilitation of the wells but in the maintenance of them. There is little perceived need for well improvements as most women would prefer more private supplies or more availability of water through the communal piped water systems. Maintenance of the wells may, therefore, have to be taken over by the Water Supply and Sewerage Corporation.

Water Supply Improvement

The community had proposed a greater provision of branch lines to improve water supply. This activity was not initially prioritised as it was said that water supply versus demand needs had not been established. However, one of the

main expressed problems for women is the quantity of water supplied and during periods of shortage, there are long lines of women waiting for their water. It is also difficult to promote other sanitation activities without an adequate supply of water - bathing, toilet cleaning and other activities are all affected. It is recommended that this proposal be reconsidered.

Toilet Programme

The proposal to upgrade the communal toilet in Teta should either not be undertaken or be undertaken with the short-term in mind. There is very little interest in communal toilets in the whole area and the provision of a proper sewerage system and the installation of private toilets will be much better received by the community. There is great interest in installing toilets and absolutely no resistance to contributing labour or money for this activity. However, the community cannot take on the major work of providing adequate drainage and sewerage. In the Teta area more discussion needs to take place on acceptable designs as the pour flush toilet may not be the most appropriate. However, this will need to be undertaken by people with considerable experience of urban sanitation and should draw on the experiences of other programmes such as that in Bhaktapur.

It is recommended that the public toilet is not upgraded if the private toilet building phase is brought forward. If it is felt necessary to upgrade the public toilet then the only way to ensure regular cleaning and maintenance is to employ someone to undertake this task. Community responsibility for maintenance has been tried in many areas and has almost invariably failed. An adequate water supply will also have to be provided.

Technical solutions are beyond the scope of this study but if proper sewerage and drainage were provided it is expected that most households would build their own toilets. There is normally space on the ground floor for an internal toilet. In the Teta area residents might prefer to have the toilets connected to septic tank systems. It has been established that for the Pode community this is seen as an important income earning opportunity. Some attention has to be paid, however, to health matters as the Bhaktapur project found wet composting methods caused particularly severe health hazards in a sweepers' area.

Solid Waste Programme

The proposed provision of bins and containers will be well received if particular attention is given to the siting of these facilities. The proposal to collect a contribution towards this service is less popular and some households may continue their old practices saying that they need not pay if they do not use the service. The collection and record keeping for this may also make it more expensive than exploring ways for the municipal services to assume some of the responsibility.

2. SOCIAL ACTIVITIES

Primary Education

Extension of the school building has already been proposed. This will be a potentially popular move particularly if some real effort is made to improve enrolment opportunities for out of school children. It could be worth considering locating a child care facility nearby in order to promote integration between the sweepers' children and children of other castes.

On the grounds that sweepers will not send their children to school while such caste prejudice exists, a separate classroom could be set aside for them until there is evidence that the children will not be discriminated against. This is a compromise solution but it is probably better than setting up a separate facility. Many feel that setting up separate schools increases social isolation. Others argue that it is better for the children get some education than none at all even if this means setting up a separate institution. But the stark reality is that there is not going to be integration immediately.

The main problem with separate facilities is that many groups in Nepal could argue for similar exclusive institutions. The net effect would probably be, to highlight rather than to diminish caste differences. There are no simple solutions but, over the long-term integration can only be achieved by increasing exposure between castes. Further details and recommendations are to be found in Chapter Two (Section Four). This component should be one of the first priorities of the UNICEF programme. It should not be difficult to obtain a contribution to labour costs for school improvements as this activity has the support of all community members.

Adult Literacy

Although respondents experienced little desire for this activity it is undoubtedly a real need in the community. Improving female literacy levels would do a great deal for health education programmes, and women's income generation. It is essential that the first classes are stimulating and scheduled to fit in with women's work commitments. Experiences in other areas show that the demand for classes can accelerate dramatically if the 'advertising' from the first participants is positive.

Girl Child Literacy

Although attempts should be made to find ways to encourage school enrolment for all children it may have to be accepted that some children will never get to

school. They should either be included in the adult literacy programme or should have classes of their own. Out of school boys should be included but the primary target should be girls. A particular need, expressed by the community both in the survey and in group discussion, is for better access to education for all children but particularly for Pode children.

Child Care

In discussion with women of childbearing age there is a great demand for some sort of child care provision. Although the home based approach has been advocated, some further thought might need to be given to this. To encourage mixing of the children at the pre-primary stage and hence set the stage for better integration at school, it might be beneficial and preferable to have a centre where women can bring the children. The provision of child care activities is likely to provide the best entry point for other components such as health education. More children are likely to attend school if they do not have child care responsibilities themselves and women are keen to be released from child care commitments so that they can have the opportunity to earn more income. The children can also be exposed to a number of health related activities and it is through a medium such as this that immunisation, growth monitoring and better nutrition can be promoted. If the home based approach is used in the Teta area it will be difficult to provide proper sanitary facilities for the children.

Setting up a pre-school facility will free siblings and women from the burden of caring for young children. This is a popular idea which has also emerged from group discussions with women who see it as giving them the opportunity to have more free time for wage earning activities. The stimulating environment should also greatly benefit the children who attend both in immediate developmental terms and in relation to their long-term educational growth.

This is potentially the one of the most expensive components of the programme. However, the possibility of using space in an existing building and the possibility of a financial contribution from the community can be explored through the users' committee. The local clinic in Tyagal was built entirely through local effort and similar energy and commitment might be mobilised for this initiative.

UNICEF had proposed to use the home based approach to pre-school education in this area. For certain reasons it is felt that this is not the most appropriate option. The houses do not have the space or physical facilities to accommodate groups of children. The interiors of the houses are dark and badly ventilated and there is not the space available that there is in the rural areas for the pre-school groups to spill out onto verandas or open spaces. There would be problems too of cross caste interaction. If an attractive facility was to be provided it may be possible to surmount some of the caste problems and may be a more acceptable approach than the home based one.

Income Generation and Training

The activities proposed - carpet weaving, knitting and tailoring - do, to some extent, build upon existing skills within the community. However, detailed work has to be done on the marketability of products and upon wage earning opportunities in the immediate area. Carpet weaving, for example, is a very competitive area and women could find themselves forced out of the market. Although there is great demand for skilled carpet weavers in local factories most of the women in this area are looking for home based income earning opportunities rather than a marketable skill. One activity which is already undertaken, and for which there is a large market, is wool processing. The main help women would need in starting such activity would be the provision of raw wool and help in establishing the market outlets.

In the longer term there may be more mileage in a production credit approach as women generally have good ideas about potential economic opportunities in the micro-economy. They need only assistance with credit provision and some business skills.

Health Services

It has been established through the survey and group discussions that health does not rate highly on the scale of perceived problems. There is a large pool of expertise already in the community and this can be built upon. It may not be necessary to train 'new' TBAs but it may be necessary to upgrade the skills of those already practising. However, it has been noted that all the TBAs interviewed were quite old and if women continue to favour home births some new TBAs will eventually have to be identified. It would also be beneficial to persuade the untrained TBAs to consider training and to try and find ways to continually upgrade skills. In particular, this would involve improving referral networks and increasing appreciation of high risk factors. More training on child health problems for TBAs could have long term effects as they are already consulted about child health problems. It will be necessary to increase cooperation between the people involved in the health field as there are sometimes competitive jealousies which can lead to a breakdown in referral systems.

It is probably only necessary to increase awareness of existing health services rather than to provide additional services. The Saturday clinic at Tyagal, for example, is a totally voluntary undertaking and it is important not to undermine such initiatives. The CDHP has been active in this area for many years and immunisation rates and knowledge of oral rehydration solution are already quite high. What is less evident is an appreciation of the link between environmental

sanitation and ill health. There is, in addition, a relatively limited understanding of preventive measures.

Community organisers, TBAs and traditional healers could all be involved in motivating people to use allopathic facilities for the services such as immunisations, that they themselves cannot provide. It has been shown through the data that traditional healers are still important influencers in the community and they therefore, have to be included in the health component.

It might be possible, in conjunction with a mass awareness campaign, to 'advertise' the clinic and other health services in order to make people aware of what can be offered. This could be very effective in conjunction with a mass immunisation campaign for women and, children could be very effective. Mass campaigns are labour intensive and are certainly not sustainable but they are very effective in generating publicity. Film was particularly noted to be a good medium for generating interest and other suggested strategies are included in Chapter 2 (Section Five) of the report.

Sports Ground

This is important to the youths in the area many of whom are unemployed and disillusioned. It should be possible to mobilise the enormous energy and enthusiasm amongst this group in support of many components of the programme. Unemployment amongst the young people was noted to be a particular problem and many of the older people, in group discussion, mentioned drug use and alcoholism. Although not so directly within UNICEF's mandate some attention to the youth sector should be considered. This group has great potential to help support other components of the programme and provides a ready pool of voluntary labour. The young people were particularly keen to be involved in group discussions and their enthusiasm for the proposed programme was particularly noteworthy.

Mobilising Support

The existing community structures will need to be used to ensure the effectiveness of the programme at minimum cost. There are many influential people within the community who can be used to help in mobilising for community activities and there are networks, such as guthi organisations and youth groups, which can be used for specific components. The actual model that will be used to ensure the success of this programme will need to be adapted by UNICEF to fit local conditions and there are many examples from different parts of the world which can provide guidelines.

Other recommendations on childbirth and further detail on all of the above are to be found at the end of each section. Although the report has been divided, for convenience, into easily identifiable sections it is hoped that what emerges is a

reasonably holistic picture of a small urban community. It should be remembered that the childbearing woman, for example, is also a mother with concern for her children's education, their health, her family's economic status and the environment around her. The threads all interweave and no strand can be considered in isolation from the others if this programme is to be successful.

APPENDIX A

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________________________________

1.2 Ethnic group/caste__________________________________

Be very specific in reply i.e Ethnic group Newar Caste Maharjan: Group Tamang Caste Yonjan: Group Magar Caste Ale

1.3 Name of person interviewed, if different and relationship to household head __________

1.4 Is this your ancestral home, if not,
where did you come from? ________________________

1.5 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.

1.6 How many children do you have?

Male	Female	Total
☐	☐	☐

1.7 How many children would you ideally like?

Male	Female	Total
☐	☐	☐

Group no:

No.	Relation to household head	Age	Sex	Ed. Level	Main job	Other job/skill	If child under 15 not at school
1. 2. 3. 4. 5.	wife mother/father son/daughter son/daughter in-law other, specify		male female	1. never went to school, cannot read & write 2. never went to school, can read & write 3. class finished school, literate 4. still at school, class number	1. sweeper, town authority 2. sweeper, other 3. butcher 4. farmer 5. govt. service 6. irregular, specify 7. other, specify		1. works at home 2. looks after children 3. looks after animals 4. goes to work, specify 5. other, specify
(INCLUDE RESPONDENT AS NO 1 IN THIS LIST)							

Nuclear household ☐ Joint household (three generations/married son or daughter in the same house ☐

Group No:

---

3. ECONOMIC

3.1 What is your main source of income?

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) manual labour/construction work
7) service abroad
8) tailoring
9) shopkeeper
10) other, specify

3.2 How much did you earn last month?

1) less than 400
2) 400 - 700
3) 700 - 1000
4) 1000 - 1300
5) 1300 - 1700
6) 1700 - 2000
7) 2000 - 3000
8) 3000 - 4000
9) More than 4000, specify....................

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. Do you have any secondary source of income?

1) Farming
2) Part-time job, specify
3) Labouring/construction work
4) Business, specify
5) Carpentry
6) Pension
7) Rental income
8) Other, specify
9) None

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

1) Wife
2) Self
3) Mother
4) Self and Wife
5) Brother
6) Sister
7) Father
8) Son
9) Daughter
10) Uncle
11) Other, specify

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

Use same variables as in 3.5

3.7 Does anyone else in the household earn? Who?

1) No-one
2) Son
3) Daughter
4) Son and daughter
5) Wife
6) Brothers
7) Sisters
8) Brother and Sister
9) Father
10) Mother
11) Father and Mother
12) Other, specify

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

Group No:

3.8 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) Medicine
13) Clothing
14) Other, specify

☐ ☐ ☐ ☐

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

1) Yes 2) No ☐

3.9.2 If yes, who to:

1) family member
2) neighbour/friend
3) bank
4) money lender ☐
5) other, specify
6) office loan

3.10 What did you borrow the money for?

1) household expenses
2) business
3) other, specify
4) building a house ☐
5) social expenses (weddings etc)
6) medical expenses

....

3.11 How much did you borrow ? Specify actual amount.

....

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

....

Group No:

3.13 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) cassette player
8) telephone
9) other valuable items, specify

3.14.1 Landholding pattern

1) Landless

2) Owner cultivation

3) Tenant cultivation

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

5) Sharecropping (cut - tenant provides inputs)

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

1) Less than 1 ropani, specify
2) 1 ropani
3) 2 ropanis
4) 3 ropanis
5) 4 ropanis
6) 5 ropanis
7) 6-10
8) 10-15
9) 15-20
10) more than 20

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

1) Yes 2) No

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

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?..............................

Group No:

3.14.4 If the respondent is a tenant cultivator:

How much land?..

How much rent paid?...

3.14.5. If the respondent is a sharecropper:-

% of produce given to landlord?...

How much land do you farm?..

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

Up to three answers in order of importance

1. Paddy
2) Wheat
3) Vegetables
4) Corn
5) Millet
6) Bean
7) Potato
8) Mustard
9) Other, specify

[ ] [ ] [ ]

3.15 Do you own any animals? How many ?

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

3.16 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?

....

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 etc)
4) cement and mud
5) cement and wood
6) 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 and school name 2) No

....

4.8.2 If the answer is yes, is this all children or only some ?
1) All children of this age group
2) Only boys
3) Only girls
4) Other, specify

4.8.3. If some or all children are not going to primary school ask why they do not go. Expand and probe if necessary.

1) cost of fees
2) cost of uniform or books
3) the school is too far
4) the children are ostracised
5) the school is not good (why ?)
6) the child does not want to go (why ?)
7) the child has to work at home
8) the child has to work elsewhere
9) the child has to look after other children
10) other reason, specify ?

Can specify up to three answers in order of importance

4.9.1 If you have children of secondary school age do they go to school ?

1) Yes, name school 2) No

....

Group No:

4.9.2 If the answer is yes, is this all children in this age group or only some ?

1) all children
2) only boys
3) only girls
4) other, specify

4.9.3 If only some children are not going to secondary school ask why they do not go.

Use same variables as in 4.8.3. Accept up to three answers in order of importance.

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

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

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

Use same variables as in 4.10.1. Accept up to three answers in order of priority.

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

1) cost
2) distance
3) staff attitude
4) have never needed to use (no serious illness)
5) religious reasons
6) other, specify ....

Group No:

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

1) health workers
2) garbage disposal
3) no public services
4) other, specify ....

4.12.1 Have you ever had any special training ?

1) Yes 2) No

4.12.2 If yes, specify

....

4.12.3 Would you or anyone in your family like training ?

1) Yes 2) No

4.12.4 If yes, what sort ?

1) sewing, knitting or weaving
2) mechanical training
3) agricultural training
4) unspecified

4.12.5 For what purpose ?

1) to start a business
2) to find a job
3) to earn more money
4) other, specify

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

1) Yes 2) No

4.13.2 If yes, where did they come from ?

....

....

Group No:

4.13.3 Do they cause problems ?

....

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

1) literacy programme
2) womens' group
3) youth group
4. boy scouts
5) rotary
6) red cross
7) guthi (what sort)
8) farmers' organisation
9) none
10) other, specify

Accept up to three replies

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

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

....

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

1) street cleaning
2) shared farm labour
3) joint child care
4) guthi activities
5) free labour for construction
6) none
7) other, specify

Accept up to three answers

Group No:

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?

....

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?

....

Group No:

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

1) own latrine
2) communal latrine
3) open space (where)
4) river bank
5) office
6) other, specify

....

5.2.2 Where did you defecate yesterday ?

Use same variables as in 5.2.1.

5.2.3 What do you like or dislike about this place?

....

....

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?

....

Group No:

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) don't know

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

1) cost
2) no space
3) don't need one
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) drainage
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) 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's education level.........................

7.9 Husband 1) Literate ☐
2) Illiterate

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 [ ]

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
2) Household items
3) Gifts
4) Children
5) Animals
6) Savings
7) Clothes
8) Travel
9) Pujas
10) Education
11) Health
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?

1) lack of finance
2) lack of skill
3) lack of supplies
4) workload - childcare
5) farm work
6) family disapproval
7) Other, specify................................

☐ ☐ ☐

....

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 Where is your main source of water

1) private tap in house
2) communal tap
3) well
4) stone tap
5) other, specify

....

9.1.2 Do you have problems with water supply (specify at 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?

....

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

....

9.4.2 Observe - is this container covered or closed?

1) Yes 2) No [ ]

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)?

....

....

....

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

Interviewer ....

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

....

....

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?

....

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

Interviewer ....

FOR WOMEN - SANITATION

10.1.1. Where do the children in this family normally defecate?

1) private latrine
2) communal latrine
3) open space - where ☐
4) street/gutter
5) other, specify

....

10.1.2 Where do you go?

1) private latrine
2) communal latrine
3) open space
4) street/gutter ☐
5) other, specify

....

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?

....

....

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 ☐

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

Interviewer ....

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?

....

....

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

1) Yes 2) No ☐

10.1.11 If yes, what are they?

....

....

10.1.12 Do you know how these diseases spread?

....

....

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

Interviewer ....

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) 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) Who?..

2) How often?..................................

12.6.1 Do you sort any garbage for reuse or sale?

....

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 thirty days ?

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)

....

....

13.7.3 How did you hear of ORS or Jeewan Jal?

1) friend or neighbour
2) radio
3) television
4) pharmacy ☐ ☐ ☐
5) other health worker, specify
6) TBA or traditional healer
7) newspaper
8) other, specify

....

13.7.4 How do children get diarrhoea?

....

....

13.7.5 Who is the best person to treat diarrhoea ?

....

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

Interviewer ....

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   ☐

13.9.1 Immunisation - has anyone had

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)..

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

Interviewer ....

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)	8) income
2) solid waste disposal	9) quality of housing
3) drainage	10) adult education (literacy)
4) water supply	11) skills training
5) health	12) land ownership
6) toilet provision	13) general awareness
7) child care facilities	14) 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.

APPENDIX B : SUMMARY OF FOCUS GROUP DISCUSSIONS

For ease of reference and for help to the programme implementers it was felt useful to have a separate appendix containing summaries of all the focus group discussions.

A. EDUCATION - SUMMARY OF GROUP DISCUSSIONS

Teta Tole Education Group.

One of the group discussions in Teta focused on the fact that very few children from this area go to school. The main points arising from this discussion were:

1. The parents appreciate the value of education and, as much as any other group, they want their children to be educated and literate. However, they have tried on many occasions to send the children to school but have failed. In general the children come home very unhappy saying they have been treated badly by the other children. The parents discussed these problems with the teachers but no solutions were found and the children stopped going to school altogether. The teachers were apparently sympathetic but did not explore other options, such as schooling at different times. Perhaps this is because the school is very busy. However, there should be ways around this problem if support is received.

2. The definite preference amongst this group was for a separate school, as they have heard of the school at Kumbeshwar and once tried to set up a school of their own called the Janak Sikchhya school. This school was taken over by other groups and the Podes stopped sending their children there. If some form of accelerated schooling was provided the parents would prefer to send children in the morning as this fits in with their work commitments.

3. Their main priority is that their children should be able to study in a secure setting. They feel they need assistance to encourage the children to go to school. Previously they have not sought many solutions to the problem of education for their children as they feel powerless and have no social standing.

Lukushi Tole Education group

The participants were all male household heads who do not send their children to primary school.

1. This group discussed mainly the economic problems involved in sending their children to school. In most cases the economic value of having the children at home was of importance. All members of this group were farmers and their children were needed to stay at home to look after

younger siblings. They also commented that the costs involved in sending children to school were too high. Although it is a government school they say that they have to pay various different fees. They maintain that the main incentive for them to send children to school would be assistance with costs.

2. Some of the group who had previously sent children to school commented on the attitudes of teachers. They felt that the teachers did not really care about the childrens' performance and classes were so crowded that they could give no individual attention. They feel that teachers should get some form of recognition if they do a good job. As there are no incentives it does not seem to matter if the teachers perform well, or badly. They also commented that students are sometimes afraid of the teachers as they 'hit them' if they do not do homework and so on. They feel this could be changed if the teachers 'would treat the children as their own'.

3. This group explained that they have a guthi house (a guthi is a self help association, often religious in nature) in Teta Tole which they were willing to set aside for the education of children not attending school. In the past some teachers had volunteered to take classes for Pode children but they were looked down on as the teachers of sweepers and they found it to difficult to carry on. The parents in this group felt that times were changing and they were willing to work for the education of all out of school children, not just their own.

4. Practically they felt that more training for teachers was important. They would like greater provision of teaching materials and some sort of competition between schools in order to produce good results. However, for their own part the main factor to encourage them to send children to school would be financial assistance and some help with child care. They also noted that schools should provide proper toilets and taps and teach health and sanitation by example.

Mixed Tole Education Group.

The participants were all Maharjans who do not send their children to school.

1. Again, the economic factors were of most importance. They needed the children to help with farming or to look after younger children. Sometimes they send children up to Third or Fourth Class (ages 8-9 years) but then take them out to help with farming. There is also the problem of parental control. Some children play truant and the parents find it difficult to control them. They also point out the difficulties they have in giving their children guidance in educational matters as they themselves are not educated.

2. They would like to see classes run at more flexible times, extra coaching for children at school and classes run for those who have left. Literacy classes for children who never attended school were a popular idea.

3. Some of the group felt that there was no point educating daughters as they go to another house when they get married. Hence the family receives no benefit from their education. Moreover, daughters are more useful to work at home.

4. They discussed private schools. They say that these create resentment because while the private schools are so much better but they themselves could never afford to send their children there. The government, they insisted should be striving to provide the same kind of facilities to the state schools.

B. HEALTH - SUMMARY OF GROUP DISCUSSIONS

Health was explored during group discussions and some common themes emerged:-

1. Sanitation and disease. There is generally quite a high awareness of the link between poor sanitation and disease. From the Teta area came the following quote 'faeces in the environment is bad, it not only causes a bad smell but disease can be spread by flies that settle on it, our children get ill from this'. The most common health problems perceived were respiratory diseases and diarrhoea in children. Fevers and headaches were also mentioned. One of the main problems in Teta is the lack of toilets and if toilets can be built the people feel that many of their health problems will be solved. This shows a fairly sophisticated appreciation of the link between ill health and sanitation which can be capitalised on in health education and sanitation programmes.

   In Teta there is also great concern about the accumulation of waste and garbage in the area. The lack of drainage is the overriding concern and while most of the adults go to the river to defecate they cannot make the children go there. They scold the children for defecating in the courtyards but there is nowhere else for them to go. They say that the dirty environment causes diseases like diarrhoea and tuberculosis.

   It is clear from focus group discussions that people probably have a better understanding of the link between bad sanitation and ill health than was evident from the survey responses. Focus group discussions are able to probe and guide discussion more, eventually achieving some group consensus on ideas or beliefs.

2. Water and disease. There is some awareness of the link between dirty water and disease but people feel that if the water looks clean it is clean. Drinking water mainly comes from standpipes and the well water is used for washing pots, clothes etc. However, during periods of water shortage the well water is also used for drinking. Nobody boils water before drinking.

3. Beliefs about diarrhoea. A common belief is that children get diarrhoea when they eat too much but some group participants said it was because the children do not wash their hands before eating. Again this shows an understanding of the link between hygiene practices and disease. People are also concerned that they cannot look after their children properly due to work commitments (particularly farming). They are aware that leaving them to play in the street in the dirt and to excrete without proper cleansing predisposes their children to sickness.

4. Choice of practitioner. In the Teta area there is a preference to go to the vaidya or dhami first, especially in cases of diarrhoea. If this treatment does not work they will go to a pharmacy and only then to hospital. The discussion groups complained that the medicines they are given at the pharmacy are sometimes out of date and do not work. They are generally reluctant to go to hospital because they say it is very expensive. Even though it is a government hospital they have to pay a lot for the medicines.

   The clinic in Tyagal is popular as it is only a couple of minutes away from Teta. If the children get sick some of the people in Teta will take them to the aji (TBA), she will do a puja for them.

5. Knowledge of immunisation. Women interviewed knew that they should have children immunised although they were not clear which were the illnesses that could be prevented. There was a definite preference to use the clinic in Tyagal because the queues were short. It is also close and convenient. However, interviews with TBAs suggested that women are sometimes reluctant to be immunised against tetanus when pregnant as they feel it could harm the baby and some TBAs felt that immunisations for children could harm them. Some mothers commented that as their children had got sick (fever) after the first immunisation they did not take the child back for the full course. This clearly indicated that health workers should be giving out more information following immunisation and should actively follow up defaulters. Some women also believe that the injection will be very painful for them and they will not be able to work. Some of them avoid immunisations for this reason.

6. Traditional beliefs about health. There was not much appreciation of how diseases are caused apart from the link recognised between poor sanitation and health. In the Lukushi area people generally first go to the dhami, if

they have no success with this they will then go to the hospital or clinic. Apart from the cultural reasons for consulting the dhami people also go for economic reasons. They say that hospitals and doctors are too expensive. Also that doctors treat them badly because they are poor. Sick babies (with diarrhoea or respiratory diseases) may first be taken to the dhami, although all focus group participants were aware of Jeevan Jal and nun chini pani and said that they would use it for a very sick child.

Women in this area still commonly believe in boksi, and some women are identified as boksi because of their behaviour. The nearest translation of this would be witch or evil influence. The boksi can harm others through her powerful influence. For any illness that they believe is caused by the boksi they will consult the dhami.

The influencers' group which discussed health also emphasized the importance of recognising that people's first contact during illness is normally a traditional practitioner and these dhami/jhankris or vaidyas should be included in any health education programme.

7. Decision makers for health matters. In most cases the man of the household decides where to go and when. Occasionally the mother-in-law might decide particularly when it relates to a baby or small child. Generally, people have a fairly pragmatic approach to health decisions. They will try whichever method they think will work and, for certain illnesses, they feel that the dhami is most appropriate. However, there is no resistance to trying allopathic medicine if traditional methods fail. This sort of behaviour has often been reported in Nepal - people do not rigidly adhere to one practice or another regarding health care and, while they may have preferences regarding first choice of treatment, they are quite willing to consider other avenues if this is not successful.

8. Effective media for health education. All groups were interested in film for communicating health messages. Some people felt that influential people could also have a role to play. There was interest in giving some training to community members on health matters so that they could go around door to door talking to mothers in particular. Radio was less popular as a means of health education but people said this was mainly because they have so little time to listen. If programmes on health are broadcast it would have to be in the evenings when they are back from the fields.

9. Attitudes to hospitals. Most people in the area felt that hospitals were expensive and that they discriminated against poorer people. They were apprehensive about needing to go for serious illnesses as the charges were well above their means. If they did become seriously ill they would tend to go to Bir Hospital as they could not afford the charges at Patan.

C. WATER AND SANITATION - SUMMARY OF GROUP DISCUSSIONS

1. Generally there was no resistance to improving either environmental or individual sanitation. The main constraint has been that even when people wanted to construct toilets there was an inadequate sewerage system and the community cannot afford the huge financial outlay for a new sewerage system. They also lack the technical knowledge. Improvements therefore have to be undertaken with the help of the authorities.

2. It was mentioned that older people, and women in particular, are fairly resistant to change. It is with this group that most work has to be done. Older women are often unconcerned about children using the streets for defecation. As they are often left caring for children during the day they are responsible for developing children's hygiene practices.

3. Sometimes children are frightened to use latrines because they think they can fall into them. However, others in the groups said that children can soon learn how to use toilets if someone has the patience to stay with them. The main problem is that children are accustomed to defecate anywhere and they are rarely admonished.

4. The water supply problem is closely linked to sanitation problems. The inadequate supply means that some people cannot clean their toilets properly and so they go to open spaces because their own toilets smell too bad.

5. In Teta the majority of people use the river bank of the Teta Lukushi river. There is a communal toilet close to the area but it is extremely dirty. The women of the Teta area still use it but there is no water and there are piles of faeces everywhere as no-one has the responsibility to clean it. Most people would prefer to have their own toilets and would construct them if they could be connected to a sewerage system. They think that communal toilets are a good solution in economic terms (ie low cost) but that ultimately they will fail because people feel no individual responsibility. Communal toilets would have a greater chance of success if someone was paid to clean them but, generally, there was very little enthusiasm for this solution.

6. Some groups mentioned the minimal impact of health education programmes if there are no overall improvements in sanitation conditions. Moreover, all felt that people would take an interest in better health if the environment was cleaner and more attractive.

D. SOLID WASTE DISPOSAL - SUMMARY OF GROUP DISCUSSIONS

1. Disposal practices. The issue of solid waste disposal was explored in all groups. People felt that there would be more incentive to keep the environment clean if paving, adequate drainage and proper sewerage systems were in place. Many reported throwing their waste out either early in the morning or late at night when their neighbours could not see them. Therefore there is some community pressure not to soil the environment. In the Teta area there was an awareness of the state of the environment but people felt that, without some minimal assistance with drainage, paving and provision of more containers, there was very little they could do.

   In many locations the yellow containers were said to be too far away and there were also complaints that they are not emptied often enough. For that reason people did not want containers close to their houses because of the foul smell. The saaga were also felt to be a problem. They are emptied irregularly and the smell of rotting waste pervades the whole area.

2. Cleaning campaigns. These have been tried in the past and while they are thought to be useful for launching a programme they have very little long-term effect. Unfortunately cleaning the streets is still seen as a low caste activity and some people will not join in. The influencers felt that changing attitudes to caste and occupation is a long-term matter. As all the discussions were taking place around the time of political changes in Nepal many oblique references were made by discussants to the constraining effects of the political system and how it served to reinforce traditional attitudes. Much criticism was made of the tendency for talk and no action. People also need to feel that the improvements made 'belong' to them. The communal toilet was cited as an example. It had been built by an outsider with good intentions but as it was not requested, or instigated, by the community noone felt responsible for maintaining it.

3. Possible solutions. As people are reluctant to have yellow containers near the houses they felt that some rubbish drums could be placed in each chowk and that they would take responsibility for emptying them. They had heard of this in other areas where the drums have 'use me' written on them and they thought this would be effective.

4. Solid Waste Committee. One group discussion was held with some of the members of the voluntarily constituted Solid Waste Committee. This is a group of young enthusiastic people who had previously tried to do something to clean up the area. It was formed about three years ago but they acknowledge that they have not been able to do much because of lack of resources. Moreover, as they are younger they are not respected by older people in the Toles when they try to discuss environmental cleaning. They identify the main problems as lack of proper drainage and paving. They

were prepared to give free labour to help in paving and pipe laying. When the committee was established they used to sweep the streets once a week and had obtained some equipment from the town authorities for this purpose. However, when this wore out they could not get replacements.

They were critical and quite cynical about the previous lack of official interest and were still quite cautious about what could happen. However, this group were, above all, enthusiastic and ready to get involved in different sorts of programmes. Apart from these areas they were also interested in teaching literacy skills to others and receiving appropriate skills training themselves. They said that one of the major problems of the area is unemployment and in some cases alcoholism.

Regarding toilet use they say that young children are often frightened of falling into the toilets but that it is not difficult to train them to overcome this fear. More important, they felt, was that the lack of a good water supply caused people to use open spaces even when they had toilets. Often there is not enough water available to clean the toilets. As the toilets then smell bad people prefer to go outside.

Practical matters such as the lack of a suitable place to meet, lack of interest from the authorities and general disillusionment have led this committee to be run down. Previously they used to be able to meet in a guthi building but this has been stopped by the older people.

E. CHILDBIRTH - SUMMARY OF GROUP DISCUSSIONS.

Three group discussions were held with postpartum women. One group consisted of women in the main area who had given birth in hospital. The second group was of women who had given birth at home and the third group was a combined group of women from Teta who had given birth at hospital and at home. The main purpose was to explore attitudes to place of birth and to discuss attitudes related to traditional birth attendants.

Group 1 - Hospital Births

Six participants

This hospital birth group consisted mainly of 'middle class' Maharjan women. Their level of education was higher than the other groups and they displayed awareness of health issues and environmental sanitation. Their economic status was higher than the other groups so that cost was not a factor in their choice of place of birth.

1. Reasons for choice. The women in this group said that the main reason they chose the hospital was fear of delivery problems, specifically prolonged labour, postpartum bleeding and retained placenta. They also expressed confidence in modern medical facilities and the knowledge of medical staff. They say that giving birth at home is dangerous as noone knows how to cope with delivery problems. The drawbacks to using the hospital concerned lack of privacy and the shame the women felt at having to show their bodies to male doctors and trainees. Women also complained about the perineal stitches. For most of them this was the main problem that had arisen. As episiotomies are mandatory for primipara it is difficult to avoid. Undoubtedly, many women are subjected to unnecessary procedures which they would have avoided at home. However, many women would also have had perineal stitching for tears. It is difficult, however, to prevent certain 'myths' developing about what happens in the hospital setting and women who have not had exposure to hospitals before are likely to be particularly apprehensive. Nonetheless, most of them felt happy about going to the hospital for the next delivery.

2. Antenatal care. All the women in the group had antenatal care. They were aware of the need for a balanced diet and mentioned foods like green vegetables, meat and milk. Informally they get advice from their mothers and mothers-in-laws when they are pregnant. Individually, they avoid foods commonly 'prohibited' to pregnant women like chilli and timur. They believe that chilli may burn the fetus and that timur could induce miscarriage. Postpartum food restrictions are also practised, mainly because of the effect the foods are thought to have on the breastmilk. A full discussion of the classification of different types of food was not possible but, in this community at least, healthy foods were not prohibited either pre or postpartum. The belief that pregnancy is a 'hot' condition is common in other parts of Asia and foods classified as 'hot' are normally avoided.

3. Cord care. None of the women in the group felt it was necessary to have the naini touch the cord and they were not concerned that it was cut straight away in the hospital. It was reported in another group discussion (on health) that women felt that the naini should touch the cord, otherwise the mother might die. This does not seem to have been a commonly held belief though as none of the postpartum groups reported it.

4. Attitudes to TBAs. While they would not use the TBA for delivery they did still consult her about child health problems - particularly diarrhoea. If the TBA was unable to cure the child they would give Jeevan Jal and then take it to a doctor. All of the women felt that the TBA was an important person in the community and all were in favour of more training for them. Despite not using them all the women knew the names of the popular aji in the community. It was noted in the health groups that the aji is popular as a

healer, specifically for child illnesses. For this reason it is clearly beneficial to offer more training in preventive and curative child health.

5. All the women were interested in child care provision so that they could pursue income earning opportunities. This was common to all the groups which consisted of younger women.

Group 2 - Home Births

Six participants.

In contrast, all the women in this group were uneducated and of a lower economic status.

1. Reasons for choice. The main reasons for choosing to give birth at home were economy and a feeling of security. The women in this group have heard that it is very expensive to go to the hospital and they would rather save their money by staying at home. All the women in this group were in the low income category. Another factor which stopped them using the hospital was the attitude of the staff. The women feel that staff will treat them badly because they are poor. They have also heard about stitching and said that if they stay at home they will not need stitches. All of them would prefer to have their next baby at home.

2. Antenatal care. Most of the women felt that antenatal care was not necessary although two of them had gone to the Tyagal clinic. They took advice instead from female relatives and received the same advice on food restrictions. They were all aware of the need for a balanced diet during pregnancy but said that they could not afford to supplement their diet. All felt that women should work right through pregnancy so that they would have an easy birth.

3. Use of TBAs. Apart from calling the aji for the birth, women in this group would also use her for child health problems. They also feared bleeding and retained placenta but felt that the aji could cure bleeding by doing a puja. For retained placenta they would go to the hospital. The women in this group had mainly used trained TBAs. They did not feel, however, that the ajis need more training as 'they know everything'.

4. Cord care. All the women had followed traditional cord care practices leaving the placenta uncut for three to four days and then calling the naini. They thought that if the naini did not touch the cord the baby might die after two or three months.

5. Immunisation. Women had mixed attitudes to immunisation. Some felt that babies who were immunised were more prone to illness and had not had subsequent children immunised. Some of the women in this group had been immunised during pregnancy, they thought to avoid tetanus and jaundice.

Group 3 - Home and Hospital Births (Teta Tole).

Six participants

All the women in this group were from the most socially disadvantaged group and all but one was illiterate.

1. Reasons for choice. There were mixed attitudes to home and hospital birth but some common themes emerged. There was a feeling of security about giving birth at home in familiar settings. However, one constraint to home birth was that only one aji would come to the area. The women in this group have a higher average number of children than other groups because although they have heard about family planning, they do not know how to obtain it, and think anyway that children are 'god's gift' and that they should not be prevented. They say that some of the younger women use pills but the older ones will not. The women in this area who did go to hospital went to Thapathali for economic reasons. They say that Patan is expensive and sometimes they are ostracised there. At Thapathali noone knows who they are.

   Generally they said they have few problems with childbirth except for social problems related to caste (higher caste people say they give birth like dogs). They say this is how higher caste people view them and they are generally pessimistic about there ever being a change in attitudes. They were all full of praise for the aji who will come to their area but they know that she is an exception. As noted in the survey data most of the Pode women use the hospital but the women with more children would call the aji as they had never given birth in the hospital. The younger Pode women had all used hospitals for their first and subsequent deliveries.

2. Antenatal care. These women do not follow the same food prohibitions as the Maharjan women and they will eat 'hot' foods. They also eat soil during pregnancy to make the baby strong. None of them had immunisations during pregnancy as they are frightened of them, believing that it will hurt and prevent them from working. There was no appreciation of the reason for immunisation. They will get the children immunised if someone comes to the area but they say that these days the health workers only come once a year. They say that they do not have time to take children

for immunisation and are reluctant to go to the clinic for fear of being ostracised.

3. Cord care. They follow the practice of leaving the cord uncut for some days. They then either cut it themselves with whatever is available or there is one Pode women who will take on the role of naini.

APPENDIX C

SUMMARY OF SUGGESTIONS AND RECOMMENDATIONS INCORPORATED IN THE MAIN TEXT

SUGGESTED STRATEGIES - EDUCATION

The idea of education for children does not need to be 'sold' to the people of this area as there is clearly a good appreciation of the value of education. What is needed is practical support to ensure that the conditions are right for children to be able to attend school. With this in mind the following could be considered:

1. Child care. Setting up a pre-school facility which will free siblings and women from the burden of caring for young children. This is a popular idea which has also emerged from group discussions with women who see it as giving them the opportunity to have more free time for income generation activities or paid employment. The stimulating environment of a pre-school facility should also greatly benefit the children who attend, both in immediate developmental terms, and for their long-term educational needs.

   This is potentially the one of the most expensive activities but whether the possibility of using space in an existing building or whether any contribution could be forthcoming from the community can be explored through the users' committee. The local clinic in Tyagal was built entirely through local effort and similar energy and commitment might be mobilised for this initiative.

   UNICEF had proposed to use the home based approach to pre-school education in this area. For certain reasons it is felt that this is not the most appropriate option. The houses in this area do not have the space or physical facilities to accommodate groups of children. The interiors of the houses are dark and badly ventilated and there is not the space available that there is in the rural areas for the pre-school groups to spill out onto verandas or open spaces. There would be problems too of cross caste interaction. If an attractive facility were provided it may be possible to surmount some of the caste problems and may be a more acceptable approach than the home based one.

2. Support to the existing school. To provide schooling out of regular hours UNICEF may need to consider incentive payments for teachers to teach Pode children and to provide literacy classes for other children who were never able to attend school. It is possible that, in the long-term, the Pode children may be able to attend regular school hours if there is some degree of social

acceptance and some acknowledgement of the financial disincentives inherent in their attendance at school.

Physical improvements. Some improvements to the environment of the main school for this area (the Prabhat school) could attract children to the school. The physical environment is extremely unconducive to stimulating learning. No teaching aids were in evidence. All the walls were bare and classrooms were overcrowded. Teachers would welcome, and benefit from, some training in teaching methods.

3. Social attitudes. More intangible but necessary is to spread the message to children (and maybe to their parents and teachers) that Pode children also have the right to education and should not be discriminated against on the basis of caste. There are educated people in the area who may be able to lead discussions on these issues.

4. Adult literacy. Women in particular need some literacy training. Focusing first on those women (such as traditional birth attendants) who can actively use their literacy skills for the overall benefit of the community is clearly logical. Classes can then be provided for other groups of women and out of school children. Skills training and some employment for the young people of the area could be linked to this component.

5. Financial assistance. The economic burden of sending children to school needs to be explored though direct financial assistance is probably not to be recommended. It might be possible to consider setting up a fund in the school to cover the costs of the poorest children or waiving the fees for children who meet certain criteria.

6. Funding for education components. The issue of cost recovery for the strategies which require special funding will eventually need to be addressed by UNICEF if the programme is to be sustainable. This is, however, outside the scope of this study.

SUGGESTED STRATEGIES - HEALTH

1. The most popular ideas way of spreading health education messages was through the medium of film. Films are a novelty in the area and people remember vividly the details of films that they have seen, even years ago. To be effective the films would have to be in Newari and would have to have some entertainment value. Much less popular was the idea of spreading health education through radio. For the children it was thought that the school was the best place but many people mentioned that health education is taught very badly,. More lively methods were suggested such as dramas or puppets. Other mass media were not felt to be very effective.

Most of the women cannot read and therefore poster campaigns or other literate media are not appropriate, nor is the idea popular.

2. It was noted that schools cannot teach health education effectively when their own environment is so poor. Some attention should first be paid to providing more toilets in schools and having a good water supply. There was some interest in incentives such as a prize for the cleanest school or cleanest child. This was tried with some success in Bhaktapur and other projects where, for example, the family of the cleanest child would get some small incentive like a trip to the zoo for the whole family. This costs very little but can be productive.

3. On immunisation. There are few problems persuading people to get children immunised, probably because of the excellent work done in the area over the years by the Community Development Health Programme run from Patan hospital. However, it has been found that some of the traditional birth attendants (TBAs) feel that immunisation can harm the child. TBAs should perhaps be offered further training. More follow up is needed and more information has to be given about immunisation side effects as people often default if the child gets sick following immunisation. One comment the trained TBAs had about previous training was that it was not run in Newari. This is essential in order for them to understand what is being explained.

   Although there is a good understanding of the need to have children immunised there is very little appreciation of which diseases are prevented. It has been noted in the report of immunisation in Sri Lanka that to get mothers to accept the habit of immunisation they should be able to link immunisation to disease prevention and identify the diseases which could be prevented by immunisation.[13] This has to be addressed in health education programmes and there has to be some means to constantly disseminate information to mothers.

   As most of them have no, or little, contact with the mainstream health sector some other method has to be found either through the traditional birth attendant network or through the hospital, for mothers who deliver there. While the traditional birth attendants do give advice about immunisation they do not do so routinely. They also have poor knowledge about the timing of immunisations. The crucial point is that they can persuade the mother to go to the clinic. The staff there can then take responsibility for disseminating information.

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13 Mothers' Knowledge, Attitudes and Practices Regarding Child Immunisation: A Baseline for a Communications Programme. Lakshman Wickremansinghe, UNICEF, Colombo 1989.

Where mothers mentioned that they had not taken the child back for repeat immunisation the main reason given was that the child got sick (ie fever) the first time. Very little information is given about side effects of immunisation and this needs to be routinely incorporated into the immunisation 'ritual'. Watching some immunisation sessions it was clear that very little interaction takes place between the health worker and the client and some attention needs to be paid to verbal interaction.

4. Diarrhoeal diseases. The knowledge of oral rehydration solution in this community is already quite high so the objective to increase knowledge to 80% should be met with ease. What does need further investigation, however, is how thoroughly this knowledge is applied.

5. Disability. The numbers involved are very small so it should be possible to increase service uptake of existing facilities rather than set up a community based rehabilitation programme just for this area. If a programme was to be set up it should cover a wider radius in order to be cost effective.

6. Growth monitoring. It would be better to concentrate on improving uptake of existing services, such as the Tyagal clinic, and to liaise with CDHP as this area is fairly comprehensively covered already.

SUGGESTED STRATEGIES - WATER AND SANITATION

1. Technical solutions are beyond the scope of this study but if proper sewerage and drainage were provided it is probable that most households would build their own toilets. There is normally space on the ground floor for an internal toilet. In the Teta area the preference is to have the toilets connected to septic tank systems.

2. The problem of water supply has to be addressed. The inadequate supply has implications for sanitation and health as hygiene is dependent on a good water supply.

3. Household drainage and rainwater drainage has to be considered as the accumulation of stagnant water continues to be a problem.

4. Wells need to be rehabilitated as they will continue to be an important source of water until overall supplies are improved. Even if the overall water supply situation were to be improved it is expected that wells would continue to be important meeting places for women and wells could have a ritual importance. This was not investigated and is only a supposition.

5. The communal toilet in Teta need not be renovated if private toilets are provided. If it is to be renovated some provision will need to be made for

proper cleaning and maintenance. It is possible that the site could more usefully be turned over to some other activity.

6. Some attention needs to be paid to sanitation in schools as the physical facilities are not conducive to reinforcing health education messages.

7. There is some appreciation of the link between poor sanitation and disease and this knowledge can be built upon in health education programmes. These should be targeted at groups such as older women and children who most need to change practices.

RECOMMENDATIONS - CHILDBIRTH

1. As the TBA is an important person in this community, training should be continued but with more emphasis on recognition of high risk pregnancies. Supervision and follow up is a problem as some of the TBAs feel that once they have been trained they do not need further contact with the trainers. However, they often have poor recall and need constant supervision to reinforce subjects like immunisation.

2. As the practices at the time of delivery are sound and non invasive little needs to be done in this field except for addressing the problem of cord care. There is a real reluctance to cut the cord and while some TBAs can be persuaded to call the naini earlier, only one will cut the cord herself. A short course could be provided for the nainis as it involves teaching only one technique. Practices might change over time but, currently, the naini is the most important person involved in cord care and she has no knowledge of safe sterilisation procedures.

3. TBAs should be more involved in giving appropriate postpartum advice and should have more training in the management of obstetric emergencies. Some of them could be more influential in promoting family planning. More training needs to be provided on prevention and treatment of diarrhoea as some TBAs are giving inappropriate advice.

4. Mothers-in-law should be involved in MCH activities as they are influential in determining advice given to the mother, place of birth and care of the newborn.

5. More liaison with the hospital might overcome some of the TBAs' reluctance to refer cases. CDHP does arrange visits but it is difficult to get the TBAs together and the TBAs' expressed desire for better cooperation does not always translate into practice. This is a difficult problem to address.

6. As women also choose hospital births it would be appropriate to pay attention to the most common criticisms - lack of privacy, high cost, attitudes of medical staff and blanket policies such as episiotomies for primipara which cause distress and may not always be necessary.

7. The low caste women have difficulty securing the services of TBAs and, for that reason, use the untrained TBA who will come to their area. It would be worth spending more time with this woman, and there may be others, to persuade her to attend a training course. Most younger, low caste women will probably continue to use the hospital at Thapathali.

8. Recommendations designed to improve the quality of care provided by TBAs cannot be seen in isolation from other sections of this report. As has been noted one of the TBAs has taken the initiative to learn literacy skills. Priority should be given to TBAs in any planned adult education programmes, if they express interest. This could be one of the most important factors in helping to improve maternal and child health in this area. If the TBAs are literate they will have access to a wide range of information previously unknown to them. Education for the low caste and illiterate mothers is also of extreme importance in helping to improve the general well being of their families.

9. As the study was necessarily short term it would be interesting to have some follow up to see if patterns change over time. In general, however, it can be concluded that the TBA is still a significant provider of maternal and child health care and is likely to remain so for the more poorly educated women. In recognition of this she should be targeted as a key contact for health programmes.

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