



**A Research Report on
Relative Poverty Assessment Study of
Nirdhan Utthan Bank Clients in Nepal**

**Report Submitted to the Consultative
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FOREWORD

The advent of micro-finance has proven to be one of the most significant contributors to poverty alleviation that the development community has known. From its inception in the latter part of 20th century we have observed micro-finance grow globally ushering in new possibilities for improving lives and creating economic growth. Micro-finance has shown itself to be dynamic, providing a rich range of products and services that can be adapted to specific environments around the world. Today's micro-finance community has brought forth a wealth of creative and innovative ideas, not least of which are the newly emerging micro-insurance services.

The rough physical terrain and scattered population that characterises much of Nepal is an enormous challenge to the country's development in general and the Micro-Finance sector in particular. Despite both thirty years of targeted credit programs and the more recent liberalization of Nepal's financial services sector, access to formal financial services remains low. After concerted efforts and five years of subsidised growth, the outreach of Grameen replicators remains low and focused in more accessible and less poor districts. Other "centrally-managed" micro-finance institutions (MFIs) such as national NGOs and development banks continue to have great difficulty in covering their operational costs. A variety of formal and informal community-based savings and credit organizations (SCOs) operate across the country, but their outreach remains limited and capacity for growth constrained by limited member skills and capital.

Within Nepal there are four sets of key institutional stakeholders in the micro-finance sector.

- the MF practitioners (those agencies which provide the financial services to clients);
- the MF promoters (those agencies which provide support services to the MF practitioners);
- the Government (which provides the legal framework, policy environment and acts as the supervisory authority); and
- the Funders (a mix of multi-lateral, bi-lateral and non-governmental agencies).

Nirdhan Utthan Bank Ltd. (NUBL) of Nepal falls under the first category - practitioners. NUBL initially started as a Non-Government Organization (NGO) called Nirdhan commencing its financial operation in March 1993 with one loan officer and one field assistant. In November 1998, NUBL was registered as a development bank and obtained a licence for banking activities from April 1999 under the Development Bank Act of 1996. By July 1999, NUBL took over all the financial activities performed by the NGO-Nirdhan by purchasing the NGO's assets and accepting liabilities equal to assets. Today the Nirdhan NGO still exists as a separate entity from the NUBL overlooking educational programs as a supporting social service in eight centers of Rupandehi where NUBL operates. As of mid December 2000, total loan disbursed was NRs. 30,655,900 with an outreach of about 34,622 clients. The average loan outstanding per borrower was NRs. 5,446.70 with an average loan size of NRs. 8,731 for the same time period. The cost per unit of money lent decreased from NRs. 0.49 in July 1993 to NRs. 0.07 in December 2000. Similarly the cost per borrower made decreased from NRs. 3,400 in July 1993 to NRs. 900 in December 2000 clearly indicating efficiency gained in performance.

NUBL is one of the largest non-governments MFI in Nepal. It is also the perfect example of an MFI moving towards sustainability by practicing all the disciplines needed to provide efficient financial services to the poor women of Nepal. At a time when the target of MFIs are being questioned as to whether they have reached the poorest of the poor this research that CMF has conducted as to assess the relative poverty of NUBL clients has come up with the fact that NUBL has reached to the poorer communities and within those communities it has reached to the poorer households of it's working region in the plains. That is to infer reaching out to the poorest of the poor in one of the poorest countries. The data also reveals that there are still a large section of poor households in the study area requiring financial services. We hope that this relative poverty assessment of Nirdhan Utthan Bank Ltd. (NUBL) of Nepal conducted by CMF will be useful to Consultative Group to Assist the Poorest (CGAP) and others who may be interested in NUBL's performance.

Here we would like to acknowledge some individuals and organization that have contributed to this assessment. I would like to start with all the women of five hundred households including 200 clients and 300 non clients of NUBL who have given their valuable time and information which is the base of this report. The staffs of NUBL, with special emphasis on Dr. H.D.Pant, deserve our heartfelt gratitude in agreeing to late CMF conduct this research and also in providing logistical support in identifying their working area and clients when needed. I would like to thank the enumerators Ms. Bidya Bimali, Ms. Bhawani Sapkota, Ms. Dipti Poudyal, Mr. Kumar Rai, Ms. Sabitra KC, Mr. Sudesh Sharma; and Field Supervisors: Ms. Sewa Sherstha and Ms. Sushila Gautam for collecting the data from the field. Ms. Tripti Uprety deserves our gratitude for helping the team in data entry. Mr. K. Balasubramanyam deserves appreciation for providing technical assistance to the research team. My special appreciation goes to Dr. Chandra Bhadra for being the Principal Researcher, Dr. G. Agrawal for being the Data Analyst and Mr. Bhaskar S. Karky for managing the whole research process for CMF. Without them the research would not have been possible.

Last but definitely not the least I would like to express a heartfelt gratitude to Dr. Syed Hashmi and the Consultative Group to Assist the Poorest (CGAP) for giving CMF the opportunity to conduct this important assessment by providing financial support as well as technical assistance whenever needed.

I hope this report will be helpful for all interested organizations and individuals aiming at strengthening the work that NIRDHAN has already commenced.

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Executive Summary

Relative poverty assessment of Nirdhan Utthan Bank Ltd. (NUBL) of Nepal was conducted to examine whether NUBL has reached to the poorest as envisioned in their mission statement. NUBL is the first non-government development bank licensed to provide micro financial services. During its initiation as an NGO in 1993, NUBL extended its first financial services to 521 clients from a single branch office. As of mid-December 2001, the number of clients has increased to 33,941 served from 23 different branch offices.

A sample survey of 200 clients and 300 non-clients households was carried out to examine the difference in the poverty status of clients of NUBL as against non-clients. Sampling of respondent household was carried out as instructed in the CGAP Operational Tool "*Assessing the Relative Poverty of Micro-Finance*" manual for relative poverty assessment.

The survey area covered all of the three area offices of NUBL covering eight districts of Terai region where NUBL is operating. The districts in the West are Kapilvastu, Rupandehi and Nawalparasi. The districts in the Middle are Chitwan and Makwanpur. The districts in the East are Parsa, Bara and Rautahat. Some of these districts fair relatively well in their human development achievements, while others are quite backward in the national level comparison among districts. Districts like Chitwan, Rupandehi and Parsa are relatively well off in their socio-economic indicators among the top 1/3rd. While districts like Kapilvastu and Nawalparasi rank among the bottom 1/3rd. The study revealed that though some of these districts fared relatively better in terms of their socio-economic indicators, there are pockets of poor villages and NUBL is found to intervene in these poor pockets.

In conformity to the national economy, a majority (61%) of households is found to do agriculture. However, they are mostly marginal farmers with 88% of them holding less than 0.5 hectare of land. In undeveloped areas like Haraiya center, majority (70%) of both the clients and non-clients households is engaged in agriculture. While in relatively developed areas like Belatari and Tandri centers, household engaging in agriculture reduces due to alternative livelihood opportunities.

The average household size of the sample is 6.4 depicting the reality of larger families in Terai region. The child dependency ratio is 0.65 and the unemployed dependency ratio is 0.05. The female-headed households are very few (5%). Ninety one percent (91%) of the households is found to have at least one adult member literate. Only 18% of adults had attended secondary level education or above. The cluster-wise analysis showed that the educational attainment in Haraiya, Parsauni and Madhuban is relatively low than in Belatari and Tandri depending upon the existence or absence of schools in the areas.

Differences are found in the type of materials used in housing between clients and non-clients. The expensive construction material is concrete/cement. A larger number of non-clients (about 1/3rd) are found to use it for roof, wall and floor as against very few clients (13%).

A very few households own information and entertainment assets like radio and television, less than 15% own radio and less than 10% own television. Though the sample shows a large number of households (35%) connected to the electricity than the national average, it was observed during the survey that these households had illegal and unauthorized connection

through pole hooking. It looked life threateningly dangerous with high possibility of electrocution.

Thirteen percent (13%) of households reported food deficit within a week, which is alarmingly high considering the season for data collection was immediately after harvest in December-January. Twenty percent reported food deficit last year. Forty five percent reported they had stock of staples for more than six months and among those reporting this 68% belong to non-clients group and 32% belong to client group. Forty three percent reported that they did not need extra money to buy food and among those 65% belong to non-client group and 35% belong to client group.

The per capita expenditure on clothing and footwear is found to be NRs. 1,297 ranging from NRs. 83 to NRs. 5,000. In some households members are found not to spend a single rupee for their clothing and footwear in the past year. A vast majority spends substantial amount of money on children's school uniforms.

No differences are found in the family size, percentage of female-headed household and average age of children between clients and non-clients households. However, significant differences are found in poverty indicating variables such as size of landholding and the value of the land with non-clients holding larger size of land and having greater amount of land value.

A significant relation between gender and poverty was apparent. In poorer communities women are found to equally participate with men in livelihood earning activities, while in better off communities they are confined within the domestic works of homemaking. Similarly, in conservative communities the "inside-outside dichotomy" seems to prevail in terms of gender roles with women confidence to domestic works/homemaking and men operating in larger livelihood activities.

The histogram of the standardized poverty index shows that majority of household both client and non-client belong to the poor category. To examine the relative difference among these groups, poverty terciles were formulated based on the Principal Component Analysis. A larger proportion (44%) of clients are found to cluster in the lowest (poorest) tercile. While in the higher terciles only 15% of clients are found.

Based on above findings it is concluded that NUBL has outreached to poorer communities and within these communities NUBL has reached to the poorest households. However, the data also reveals that there are a large section of poor households still needing financial services. As mentioned above, the sample frame used in the research is confined to the Terai region of Nepal by virtue of NUBL's area of operation. However, majority of the population living below the poverty line dwell in the hilly and the mountainous region, areas well beyond the reach of NUBL as a Grameen replicator.

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1.0.0. Introduction

Micro-credit plays a crucial role in assisting the economic development of the rural people where poverty is both wide and deep. Among the many uses, micro-credit helps to even out the year-to-year harvest fluctuations and also provides the necessary capital required for investing in new technology and enterprise, removing a critical barrier to innovation and entrepreneurship. The importance of micro-credit as one of the means for reducing poverty in a poverty-stricken country like Nepal cannot be understated.

In the last decade, numerous Micro-Finance Institution (MFIs) have emerged globally and so have donors and multi-lateral donors in support of micro-finance. The professed goal of public support for micro-finance is to improve the welfare of poor households through better access to financial services. The Center for Micro-Finance (CMF) aims at strengthening the MF sector in the country in order to increase their efficiency in serving the poor. The latest issue in the sector is the question being raised as to whether the sector is in fact serving the poor. Therefore the operational manual *Assessing the Relative Poverty of Micro-finance Clients* developed by International Food Policy Research Institution (IFPRI) for the Consultative Group to Assist the Poorest (CGAP) has proved to be very timely and relevant. CMF has conducted this assessment of Nirdhan Utthan Bank Ltd. (NUBL) - one of the largest MFIs in Nepal using the IFPRI manual.

1.1.0. Objectives

This research on Nirdhan Utthan Bank Ltd. (NUBL) attempts to answer the empirical question of whether NUBL clients are the poorest of the poor. Based on the CGAP manual (Henry, et.al., 2000) which uses the Principle Component Analysis (PCA) tool, this research measures the relative poverty levels of NUBL clients in relation to non-clients. This research also explicitly describes the level of poverty in Nepal so that the environment where NUBL operates is better understood.

2.0.0. Country Introduction: Nepal

2.1.0. Geography

Location: Nepal is located between latitudes 26.22 degree North and 30.27 degree North and between Longitudes 80.4 degree East and 88.12 degree East. The Northern side of Nepal has a natural fortress of the Himalayas bordered with the Tibetan plateau of China, and the Eastern, Western and Southern side is bordered with India.

Area and Climate: The area of Nepal is 147,181sq.km. The length from East to West is 885 km and the average width from North to South is 193 km ranging from 115 to 240 km. Within this small span, the elevation ranges from 160 m to 8,800 m (i.e. Mount Everest) above sea level with a great variety of topography. This has resulted in having a diversity of climate ranging from tropics to arctic. The Eight Five Year Plan 1992 - 1997 (NPC, 1992) land utilization policy has proposed four climatic zone according to the annual average temperature and the altitude: "Subtropical" with average temperature above 20 degree Celsius and altitude below 1000 meters, "Warm Temperature" with average temperature between 17.5- 20.0 degree Celsius and altitude between 1000 - 1500 meters; "Warm Temperate" with average temperature between 15 - 17.5 degree Celsius and altitude between 1500 - 2000 meters; and "Cool Temperate" with average temperature between 10 - 15 degree Celsius and altitude between 2000 - 3000 meters. 60 to 80 percent of precipitation occurs during the monsoon season (June to September).

Ecological Areas: Mountains covers 75% of Nepal. Ecologically it is divided into five regions: Mountains; High Hills; Hills; Bhawar (Churia Range/ Siwalik Hills); and Terai (low lands).

Temperature has 80% relation with altitude but no such relation exists between the rainfall and the altitude. Hence, there is a great variation in the amount of rainfall even within the same ecological zone.

2.2.0. Economic Background

2.2.1. Nepali Economy at a Glance

Table 1 compares the Nepali economy with other neighbouring South-Asian Association of Regional Cooperation (SAARC) countries. Nepal's positive Current Account Balance could indicate low investment in the economy. In terms of GDP growth rate and per capita GDP, it ranks the lowest. Agriculture share in the GDP is highest for Nepal, thus quite obviously it has the second lowest exports, only higher to Bhutan.

Ranked by current Account Balance (2001)	Nepal	Bhutan	Bangladesh	Sri Lanka	Pakistan	India
Cur. Acc. Balance	\$ 0.01b	-\$ 0.10b	-\$ 0.30b	-\$ 0.50b	-\$ 1.80b	-\$ 5.3b
GDP Growth	3.3%	6.0%	4.4%	7.4%	4.5%	6.0%
Per-Capita GDP (PPP)	\$ 1219	\$ 1762	\$1410	\$ 3105	\$ 1774	\$ 2167
Per-Capita GNP (nom.)	\$ 230	\$ 510	\$ 299	\$ 833	\$ 492	\$452
Inflation CPI	2.1%	9.2%	2.8%	10.8%	4.6%	2.7%
Exports 12 Months	\$ 0.7b	\$ 0.1b	\$ 5.5b	\$ 4.7b	\$ 8.5b	\$ 41.9b
Sectoral Allocation of GDP (1995)						
Agriculture	42%	N/A	31%	23%	26%	29%
Industry	22%	N/A	18%	25%	24%	29%
Service	36%	N/A	52%	52%	50%	41%
Urban Population (% of total), 1995	14%	N/A	18%	22%	35%	27%

Table1. Comparing the Nepali economy with economies of other SAARC countries

Source: 1) Asia week, 2001
2) Mc Guire et.al, 1998

The nature of Nepal's economy is dualistic- relatively modern non- agriculture/ urban sector and a backward agricultural sector. The backwardness of the agriculture sector- the back bone of the rural economy which also accounts for two-fifth of the value added in the economy, is illustrated by the deceleration of the agriculture sector GDP (between 1986 - 1999) shown in Table 2.

Rate of Growth (% p.a.)	FY 1986-90	FY 1991-94	FY 1995-99
Agriculture	4.1	2.0	2.3
Non-Agriculture	5.5	8.7	5.0
Total GDP	4.8	5.6	3.9

Table 2. GDP Growth in Nepal, Fiscal Year 86-99

Source: The World Bank, 2000

Looking at the history of most developed countries, modernization in the agriculture sector formed the basis for their economic development. Without the modernization of the agricultural sector, Nepal's modernization of the non-agriculture sector could face constraining factors for the overall development in the long run.

2.2.2. Poor Performance of the Agriculture Sector

The agriculture sector occupies 42% of the GDP (Mc Guire et.al., 1998) and is the livelihood of over 90% of the population (Silwal, 1995). Agriculture growth has averaged 2.3% p.a. over the past five years as shown in Table 2. The production of food crops only averaged an increase of 1.1% p.a. over the last three years while the population growth rate remains at 2.5% p.a. over the last three years (World Bank, 2000).

The state of poverty and the poor performance of the agriculture sector are directly related. Lack of agriculture infrastructure, poor outreach of agriculture extension, and underdeveloped agriculture produce markets have been a bottleneck in the economic development of the country. Agriculture employs 83% of the population. For about 90% of the poor and the very poor-those in the bottom 25% of households measured by consumption, agriculture is the only effective remunerative activity (World Bank, 1998).

More than 50% of all landholding in Nepal is below 0.5 hectare in size which accounts for about 6.6% of the total cultivated area, while the wealthiest 4% of the population control nearly half of the total land. Landless population in the hills accounts for 5-10% of the hill population whereas it accounts for 15-20% in the plains (World Bank, 1998). It is these poor and very poor who not only have small plots but also have particularly low productivity as they have the least productive land. Only one-fourth of the very poor have rice growing land, and the median farm size for them is only half a hectare, while the average for all other groups is two-third of a hectare. Only 11% receive irrigation water year round, compared to a national average of 15% (World Bank, 1998). Nepal's poor performance in the agriculture sector is depicted in Table 3.

	Land Under Permanent crops		Irrigated Land		Arable Land		Agricultural Productivity	
	% of land area		% of crop land		Hectares per capita		Average Value Added per Agriculture Worker 1995 dollars	
Economy	1980	1996	1979-81	1994-96	1979-81	1994-96	1979-81	1995-97
Nepal	0.2	0.4	22.5	30.6	0.16	0.13	162	187
Bangladesh	2.0	2.5	17.1	39.1	0.10	0.07	181	221
India	1.8	2.4	22.8	32.0	0.24	0.17	253	343
Pakistan	0.4	0.7	72.7	80.2	0.24	0.17	392	585
Sri Lanka	15.9	15.5	28.3	29.2	0.06	0.05	648	732

Table 3. Land use and agricultural productivity in SAARC countries.

Source: The World Bank, 1999

The data in Table 3 shows the lowest percentage of land under permanent crops, irrigated land and agricultural productivity per labour in Nepal. Nepal has higher per capita arable land than Bangladesh and Sri Lanka, however, a greater proportion of the Nepali population rely on agriculture more than other sectors such as service and manufacturing, which are less developed than in Bangladesh and Sri Lanka. So long as the agriculture sector, the major economic activity of the populace, is under performing by being purely subsistence oriented, farmers may find it difficult to improve their economic conditions.

2.2.3. Poverty Status

The state of poverty in Nepal is one of the key factors for its poor development. The World Development Report 1996 (The World Bank, 1996) categorizes Nepal as amongst the poorest one dozen countries of the world with only ten extremely poverty stricken countries of Sub-Sahara Africa below it. Nearly 90% of the population lives in rural areas and 85% of the population actually farm (World Bank, 1998). According to the same report around the urban capital where 5% of the population live, the incidence of poverty is about 4%, while in the rest of the country poverty is ten times as high. The World Bank (1998) report also states the urgency for Nepal to make some progress in poverty alleviation as it has failed to mitigate the poverty escalation rates especially over the last decade, whereas neighbouring countries have been in a better position at reducing the growing poverty rates. This is evident from the fact that poverty rates in 1995/96 remained the same as it was in 1976 and 1984/85, inferring that people living in destitution between 1976 to 1996 increased by more than 60% (World Bank, 1998). This scenario is illustrated by comparing the relative poverty indicators of the Nepali economy with other neighbouring SAARC economies in Table 4.

	Nepal	Bangladesh	Bhutan	India	Pakistan	Sri Lanka
Population (millions)	23.4	132.9	0.8	1005.3	142.2	19.1
Population Growth (%)	2.3	2.2	2.3	1.9	2.6	1.2
Life expectancy (years)	57	60	61	62	63	73

Literacy Rate (%)	27.5	38.1	42.2	52.1	37.8	89.3
People per tel.	112.9	293.2	66.5	37.6	46.4	26.6
International Poverty Lines						
Population below \$ 1 PPP a day (%)	50.3	....	....	47	11.6	4.0
Poverty gap at \$ 1 PPP a day (%)	16.2	....	....	12.9	2.6	0.70
Population below \$ 2 PPP a day (%)	86.7	....	....	87.5	57.0	41.2
Population gap at \$ 2 PPP a day (%)	44.6	....	....	42.9	18.6	11.0

Table 4. Relative Poverty Indicators: A Comparison between Nepal and other neighbouring Countries

Source: 1) The World Bank, 1999
2) The Asia Week, 2001

Table 4 highlights the urgency with which poverty needs to be addressed in Nepal even when compared to poverty-stricken countries like Bangladesh and India. This table distinctly reveals that more than half the Nepali people are living in destitution. The vicious circle of poverty is enhanced by the unequal distribution of income as depicted in Table 5. Once again the relative figures reveals higher discrepancy in income distribution with Gini index also indicating the worst income inequality in Nepal amongst the five countries.

Economy	Survey Year	Gini Index	Percentage share of income or Consumption						
			Lowest 10%	Lowest 20%	Second 20%	Third 20%	Fourth 20%	Highest 20%	Highest 10%
Nepal	1995-96	36.7	3.2	7.6	11.5	15.1	21.0	44.8	29.8
Bangladesh	1992	28.3	4.1	9.4	13.5	17.2	22.0	37.9	23.7
India	1994	29.7	4.1	9.2	13.0	16.8	21.7	39.3	25.0
Pakistan	1996	31.2	4.1	10.0	14.3	17.9	22.4	35.3	21.2
Sri Lanka	1990	30.1	3.8	8.9	13.1	16.9	21.7	39.3	25.2

Table 5. Distribution of Income or Consumption

Source: The World Bank, 1999

Table 5 illustrates income inequality highest in Nepal in comparison with other SAARC countries. The issue of poverty in Nepal is further discussed in detail in the following chapter.

3.0.0. Poverty in Nepal

3.1.0 Definition

Poverty is defined in various ways in Nepal. From the perspective of the Nepalese poor themselves, poverty is insufficiency of land, food, housing and income, which may lead to hopelessness, alcoholism, or gambling (Baidya, 1999). It is important to differentiate with regard to the existence of poverty and by whom the poverty is defined (Kievelitz, Ojha, & Sharma, 1998). According to Kievelitz, Ojha, and Sharma (1998), Nepalese may be poor in terms of material well being, but they are rich in terms of kinship and social cohesion, social support, spiritualism, knowledge and experiences in the survival strategies in fragile ecosystem. They further stress that the process of "falling into poverty" and "becoming impoverished" happens due to exploitation by other people. They argue that poverty is not only socially constructed, but it is mostly socially fabricated (Kievelitz, Ojha, & Sharma, 1998).

The understanding of poverty based on participatory research conducted by various agencies revealed that poverty is experienced by different groups of people differently across gender, generation, ethnic groups and geography (Upadhyaya, 1998). In line with this innovative approach, some argue that measures should be developed to capture the disparity among and between sub-regions and sub-populations. Similarly, others argue on behalf of the old and the disabled for their inclusion in the category of the poor (Sharma, 1998). However, because of the variation in the definition of poverty, recommendation is also made for a national consensus and that the National Planning Commission is suggested to be the agency to take the initiative (Sharma, 1998).

3.2.0. Measures (Indices) of Poverty

Similar to the varying definitions of poverty, indices used to measure poverty are various in Nepal. On the one hand, measures such as consumption (food, clothing, housing), human capability, and human deprivation have been used to measure the incidence of poverty (Baidya, 1999). On the other hand, income as a necessary condition to meet the minimum basic needs has also been used as an indicator (Kievelitz, Ojha, & Sharma, 1998). UNDP uses the Purchasing Power Parity (PPP) as a measure.

The Nepal Living Standard Survey (CBS, 1996) conducted by the Central Bureau of Statistics (CBS) in 1996 used the household consumption expenditure as a poverty- measuring index. By estimating the total household minimum consumption needs of food (daily per capita calorie requirement of 2250), housing and non food items, the National Planning Commission has estimated the poverty line household income to be NRs. 4,560 (\$ 65) per annum (Sharma, 1998). Focusing on the issue of deprivation, others have used more, unconventional indices such as child deprivation, gender discrimination, and concentration of disadvantaged groups (Sadeque, 1998). Measures like loss of traditional skills and un-touch ability were identified as indices in a participatory poverty assessment exercise (Fujikura, Bhattarai, & Bhattarai, 1998).

3.3.0. Nature and Characteristics of Poverty

Fifty four percent of the households are indebted and 89% of these households are still borrowing from the informal sector. The consumption expenditure of the bottom 50% of the population is 26% of the total, compared to 45% of the top 20% of the population. Based on the purchasing power parity (PPP), 37.7% of the population is not able to spend even \$ 1 per day on consumption and 42% of the population lies below the national poverty line (UNDP, 2000). The disparity in land ownership, which is the most important productive resource, is very high (Gini coefficient is 0.54). The bottom 40% of the population owns only 9% of the land.

A vast majority of Nepalese are deprived of health services. Twenty nine percent of the population does not have access to safe drinking water, 90% do not have access to health service and 84% are devoid of sanitation facilities. This leads to very low life expectancy (57.8 years) UNDP, 2000). Approximately, one out of eleven children dies within one year of their birth and one out of eight children dies within five years of their birth. Seventy percent of the children who survive their infancy and childhood are malnourished (Kievelitz, Ojha, & Sharma, 1998).

The overall literacy rate is 40 percent. For some caste, ethnic and regional groups and the poor the ratio is as low as 10 percent. Only 72% of the children ages 6-10 years attend school. Those children who are lucky to get an opportunity to be enrolled also have difficulty in completing their primary school. The household work burden, irregularity in school operation, poverty, physical distance to schools, impossibility during rainy season, caste/class discrimination, neglect of mother-tongue in school curriculum, etc. contribute to a high failure rate. Only 10% of those children who are enrolled in the grade one complete primary school (fifth grade) without repeating any grade. Similarly, the dropout rate is also very high. In 1995, the dropout rate for grade one was as high as 42%. Enrolment (by the relevant age cohort) to lower secondary and secondary schools is 26% and 16% respectively. Within this extremely low enrolment ratio, the gender discrimination is very high. For every 10 girls enrolled, the number of boys enrolled in lower secondary school is 16 and in secondary school it is 18. Only 0.83% of the Nepalese had acquired a Bachelor's degree in 1995 (NESAC, 1998).

3.4.0. Prevalence of Poverty

The variations in the definition and the indices (measure) of poverty are reflected in the estimate of the incidence of poverty as well. According to the National Planning Commission (NPC) which measures poverty according to daily consumption of food and non-food items, 1996 the incidence of poverty was 45% (i.e. 45% of the households are below the poverty level). Similarly according to UNDP's purchasing power parity (PPP) measure, 37.7% of Nepalese are unable to spend more than \$ 1 per day on daily living (UNDP, 2000). In the Central Bureau of Statistics' survey (CBS, 1996) on living standards, only 27% of the people perceived their income to be inadequate to consider themselves as poor.

3.5.0. Area Specificity of Poverty

Poverty in Nepal is area specific. Rural areas of Nepal have a substantially higher incidence of poverty than urban areas (47% compared to 18%). Within the rural areas the more inaccessible mountain areas have the highest incidence of poverty (62% below the poverty line), with the hills having moderate (54%) and the Terai lower (37%), (Poudyal, 1996). As the vast majority (90%) of the population lives in rural areas the incidence of poverty is pervasive in the country. Poverty in Nepal is also found to have regional variation. The incidence of poverty is more prevalent in Western Development Regions (Western, Mid-Western and Far Western) compared to the Eastern and Central development regions, with Far Western Region faring the worst (NESAC, 1998).

3.6.0. Socio-Economic Dimension of Poverty

Poverty in Nepal also has socio-economic dimensions. People in the agriculture sector are found to be poorer than people engaged in the services sectors. Similarly, people belonging to the so-called 'lower castes' (*Kami, Damai, Sarki*) and ethnic groups like *Rai, Limbu, Magar, Tamang* are found to be poorer than higher caste people like *Brahmin* and *Yadav*, and people from the Newar Community (NESAC, 1998).

No matter how we define poverty, measure poverty, or estimate poverty, the pervasiveness of the absolute poverty is real and is increasing in number (Kievelitz, Ojha, & Sharma, 1998).

3.7.0. Feminisation of Poverty

Poverty in Nepal also has a gender dimensions. If consumption were to be taken as the indicator of poverty, women receive substantially less in intra-household distribution of consumption items. An intra-household participatory research on poverty revealed a large gender gap in education, health, access to and control over income (Fujikura, Bhattarai, & Bhattarai, 1998). If poverty was measured in terms of the daily calorie intake (used by National Planning Commission) many women would be considered poor though they may belong to households above the poverty threshold. This is substantiated by a high proportion (28.7%) of rural woman having chronic energy deficiency (Baidya, 1999). And an alarmingly higher proportion of pregnant women (40% to 50%), being anemic. The maternal mortality rate is one of the highest in the world and everyday 12 women die due to pregnancy related complications (FWLD, 1999). Nepal is the only country in the world, where the life expectancy of women is lower than that of men (57.6 compared to 58.1, UNDP, 2000).

There is a wider gender gap in access to education. The 1991 census reveals that the overall literacy rate is 40%, with women accounting for only 25% compared to 55% for men. The adult female literacy rate remains as low as 21.7% compared to 56.9% literate adult men (UNDP, 2000). In 1995, girls comprised two third of those children (6-10 years) who were deprived from enrolment at primary level schools (NESAC, 1998). In the primary level schools, girls comprise 42% of the total enrollment, which dropped to 41% in lower secondary and 39% to secondary schools (Ministry of Education, 2000). The disparity becomes much stark regionally. In the less developed regions such as the Far West, the secondary level enrollment of girls is as low as 16.7% (FWLD, 1999). The overall enrollment itself reduces as the level of schooling goes up. The lower proportion of girls in relation to boys indicates that the absolute numbers of girls getting educational opportunities are extremely minimal. Among the college graduates, only 18% are woman (NESAC, 1998).

If land holding is to be taken as an indicator of poverty, Nepalese women are the poorest of the poor. Only 6.4% of the total landholdings belong to women and they own only 4.4% of the total arable land. A vast majority (81%) of women who own land own less than one hectare (CBS, 1994). Women who have land entitlement are generally widows and they are also the de-jure heads of the households. The incidence of poverty is found to be higher in female-headed households than in the male-headed households. If an adult male is not present in a female-headed household, the incidence of poverty is prevalent (Baidya, 1999). Poverty puts an extra pressure on adult male emigration, which in turn increases the number of de-facto female-headed households.

The trend of feminization of agriculture is also increasing. In 1971, female labour force in agriculture was 30.4%, while in 1991 it increased to 45% (FWLD, 1999). According to 1993/94 agricultural census, 64% of agricultural labour force is found to be women (CBS, 1994). A vast majority of these women toil in very small pieces of land with below subsistence productivity as unpaid labourers.

Women have very limited access to income generation/employment opportunities due to lack of education/training, lack of access to collateral for institutional borrowing, lack of skills for enterprise undertaking, and lack of access to and control over productive resources. According to UNDP's PPP measure, the GDP per capita gender differential (estimated by using female non-agricultural wage to the male non-agricultural wage) is \$ 783 for women and \$ 1,870 for men (UNDP, 2000).

According to Acharya (2000), women's employment in organized sector had increased up to 23% in 1991; however it showed a declining trend in 1996/97 to 21%. Women tend to work for more days (177 days compared to 159 for men) per year. But the daily wage differential favors men (NRs. 77 compared to NRs. 58 for women). In the non-agricultural informal sector, 2.6% of women are engaged in wage employment and 4.2% of women are self employed. The majority of these women are engaged in their family enterprises in trading and services. Although as proprietors of their enterprise women comprise a smaller proportion (2.1% in trade related enterprise and 0.4% in service related enterprise), the self employment of these women can be attributed to the access of women-focused micro-credit programme (Acharya, 2000). This substantiates the contribution of micro-finance in providing income generation/employment opportunity for women.

4.0.0 Overview of Micro-Finance Policies in Nepal

4.1.0 National Policy

The lessons learnt during the 1960s and 1970s of persisting poverty (in spite of large development investments), poverty targeted programmes were launched from 1970s onwards. These programmes were targeted to the poor for income generation especially through micro-credit. The most remarkable programme initiated in 1974/75 was the Small Farmer Development Programme (SFDP) by the Agriculture Development Bank. It was based on the philosophy of group dynamics such as group solidarity and cohesiveness.

During 1980s, micro-credit programmes especially those without collateral extended their services targeted on women such as Intensive Banking Programme (in 1981), Women Development Programme/SFDP (in 1981) and Production Credit for Rural Women (PCRW) in 1982. The popularity of women's micro-credit programmes such as the national experience of a high repayment rate and successful micro-enterprises of women's group and the international experience of Grameen Bank of Bangladesh inspired many new micro-credit programmes for women in Nepal after 1980s. The PCRW, which is a government delivered programme, prompted the initiation of Micro-Credit Project for Women (MCPW) in 1992/93 to be delivered by NGO's. The Grameen Bank, one of the best known micro-finance organizations worldwide (Yaron et.al., 1997) and with the depth of its outreach to the poor incited replicators like NUBL (in 1991), Center for Self-help Development Credit Programme (in 1991) and Regional Rural Development Banks (in 1993). Apart from these there are a few Grameen replicators with smaller coverage and a large number of locally initiated Saving & Credit Organizations (SCOs) many of which are running as cooperatives after the government adopted the Co-operative Act in 1992/93.

Though Nepal's policies on economic development in the past emphasized poverty alleviation, it was in March 1996 when it became the signatory for the Agenda for Social Development and committed to eradicate absolute poverty by 2010. Since late 1990s, the government has adopted an open policy in deregulating the financial sector by licensing private and non-governmental financial institutions to operate as development banks if the services are targeted towards poverty alleviation. This has inspired a few non-governmental financial institutions to procure licenses and operate as development banks. NUBL became the first non-government MFI to receive a license and operate as a development bank.

5.0.0. Background of Nirdhan Utthan Bank Ltd. (NUBL)

The NUBL's mission, goal and vision, as mentioned in the brochure attached in Appendix 1 is as follows.

Mission: To extend financial services and social awareness to the poor, especially rural poor women, in under-served and un-served areas of Nepal in a sustainable manner.

Goals:

- a) To reach maximum number of poor households with potential and financial viability by adopting proven financial services delivery mechanism.
- b) To develop a well managed institution with high staff mortality.
- c) To enhance women's "self respect" through social awareness, proper use and on-time repayment of loans, regular saving and provision of related micro-finance services.

Vision: The bank's vision is to be a bank with social consciences that enables the poor to contribute equally to a prosperous, self-reliant rural society through self-employment and special awareness and help reduce poverty in Nepal.

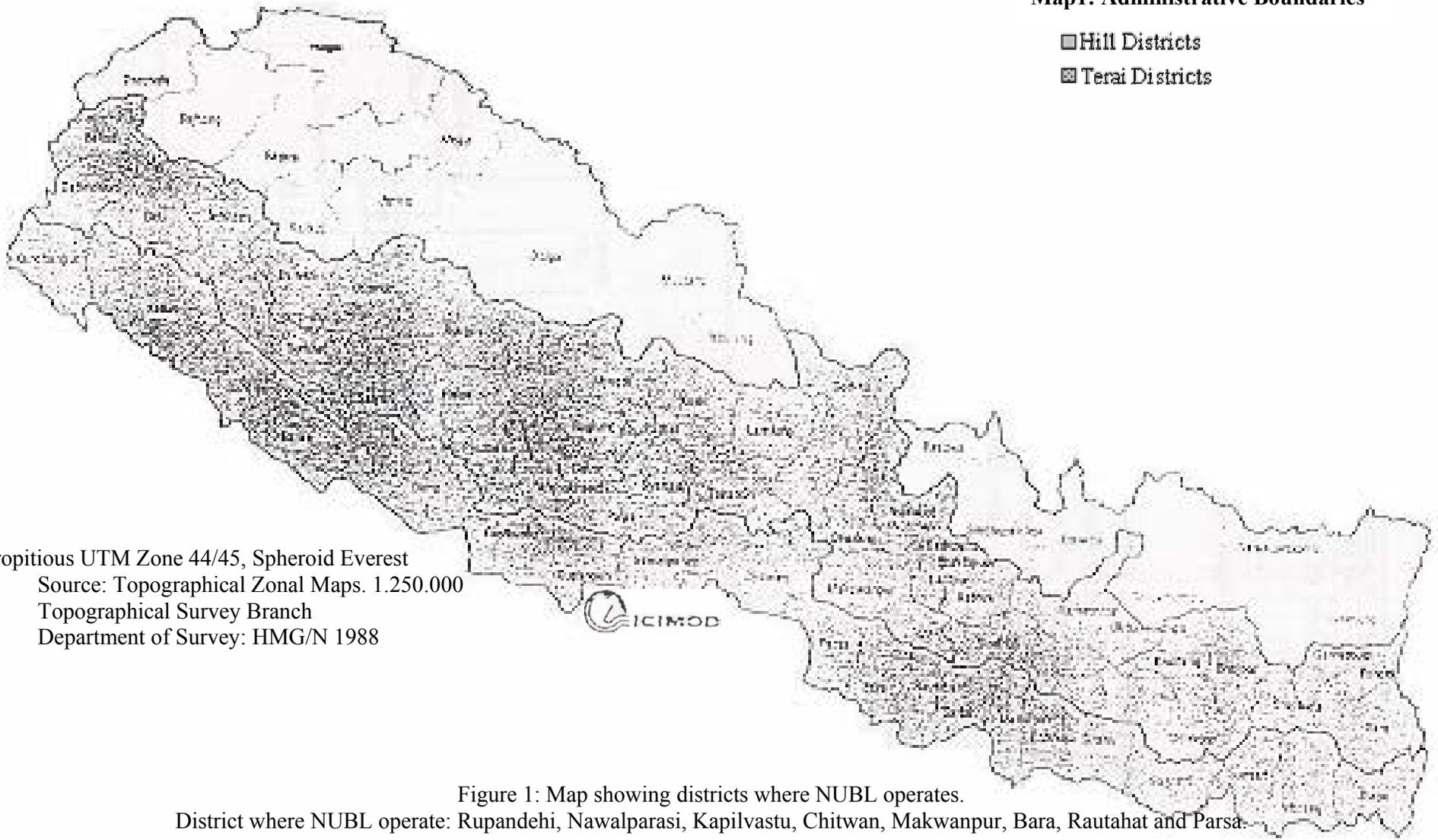
5.1.0. Geographical Coverage and Organizational Structure

5.1.1. Geographical Coverage

NUBL operates in three areas- Bhairahawa, Bharatpur and Kalaiya. Together the three Area offices touch on eight districts- Kapilvastu, Rupandehi, Nawalparasi, Chitwan, Makwanpur, Parsa, Bara and Rautahat. These districts are situated in the southern-central plains of Nepal. The map in figure 1 shows the spread of districts where NUBL operates.

Map1: Administrative Boundaries

- Hill Districts
- ▣ Terai Districts



Propitious UTM Zone 44/45, Spheroid Everest
Source: Topographical Zonal Maps. 1.250.000
Topographical Survey Branch
Department of Survey: HMG/N 1988

Figure 1: Map showing districts where NUBL operates.
District where NUBL operate: Rupandehi, Nawalparasi, Kapilvastu, Chitwan, Makwanpur, Bara, Rautahat and Parsa.

Nepal is ecologically diverse with three distinct ecological regions, the mountains known as the Himalayas, the hills known as the Mahabharata range and the fertile plains known as the Terai region (also known as the 'Granary of Nepal'). Distribution of the population within the three ecological regions is depicted in Table 6.

Year	Mountains	Hills	Mountains & Hills	Terai	Total
1991	7.8%	45.5%	53.3%	46.7%	18,491,097

Table 6. Distribution of 1991 population by ecological region as percentage

Source: NESAC, 1998

The mountains and the hilly regions together make up more than half the population of the country.

Bharatpur Branch Office lies towards the north of the Terai region in the inner Terai region, of fertile valley between the Mahabharata hills in the north and the Siwalik (Churia) hills in the south. But because the climate factors, vegetation and the topography are similar to that of the Terai belt, it is categorized under the Terai ecological region. A cross sectional map shown in the figure 2 best describes the geographical outreach of NUBL.

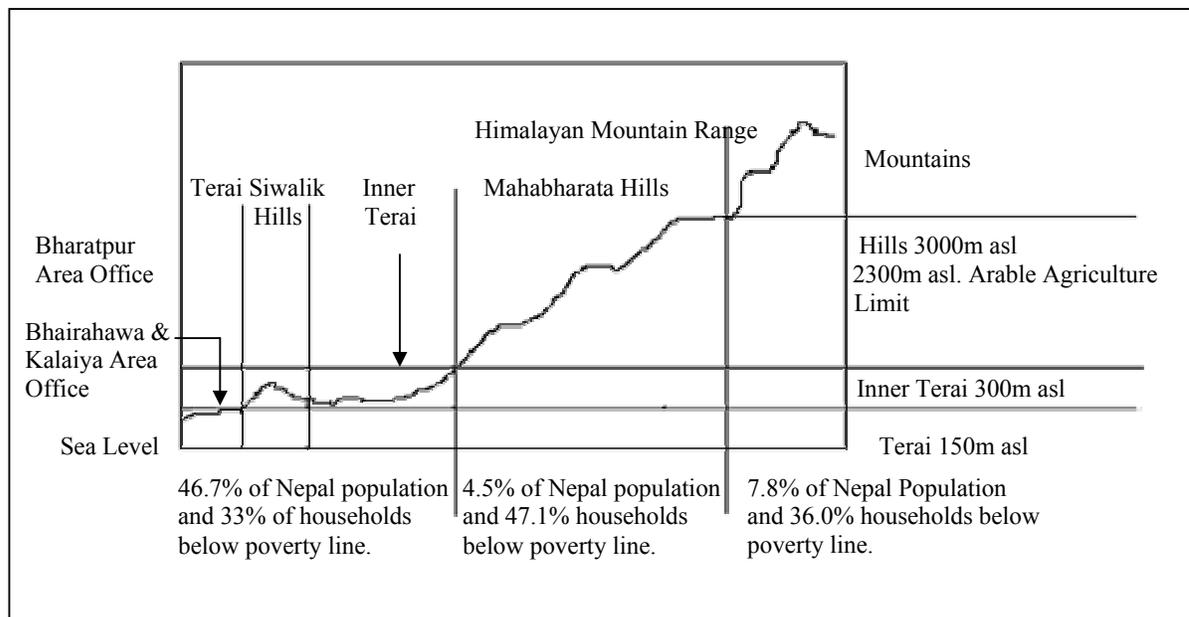


Figure 2, A cross-sectional map showing the operational areas of NUBL.

Cross-sectional mapping reveals a geographic uniformity in NUBL's outreach i.e. concentration in Terai only. To capture the geographical diversity in terms of NUBL's outreach to provide financial services to the bulk of the poor people dwelling in the hilly and mountainous region (consisting of 73% of the total population living below poverty line) as depicted in the Table 7, will be one of NUBL's greatest challenges for the future.

Ecological Region	% of household below poverty line	% of population below poverty
Terai	33.0	34.5
Hills	47.1	50.0
Mountains	36.0	44.1
Nepal		42.6

Table 7. Percentage of households and population below poverty line by region, 1984/1985

Source: NESAC, 1998

However, NUBL's concentration in the Terai region is justifiable on the grounds of seeking economic viability. Nepal's rural financial market is characterized by deep pit of market failure (Karky, 2000). This scenario of market failure gets further aggravated in the hilly and mountainous regions due to imperfect information (adverse selection, moral hazard and high transaction cost) and therefore, is rendered as economically nonviable for private initiatives like NUBL based on the Grameen model.

5.1.2. Organizational Structure

The organizational structure of the bank is illustrated below in Figure 3.

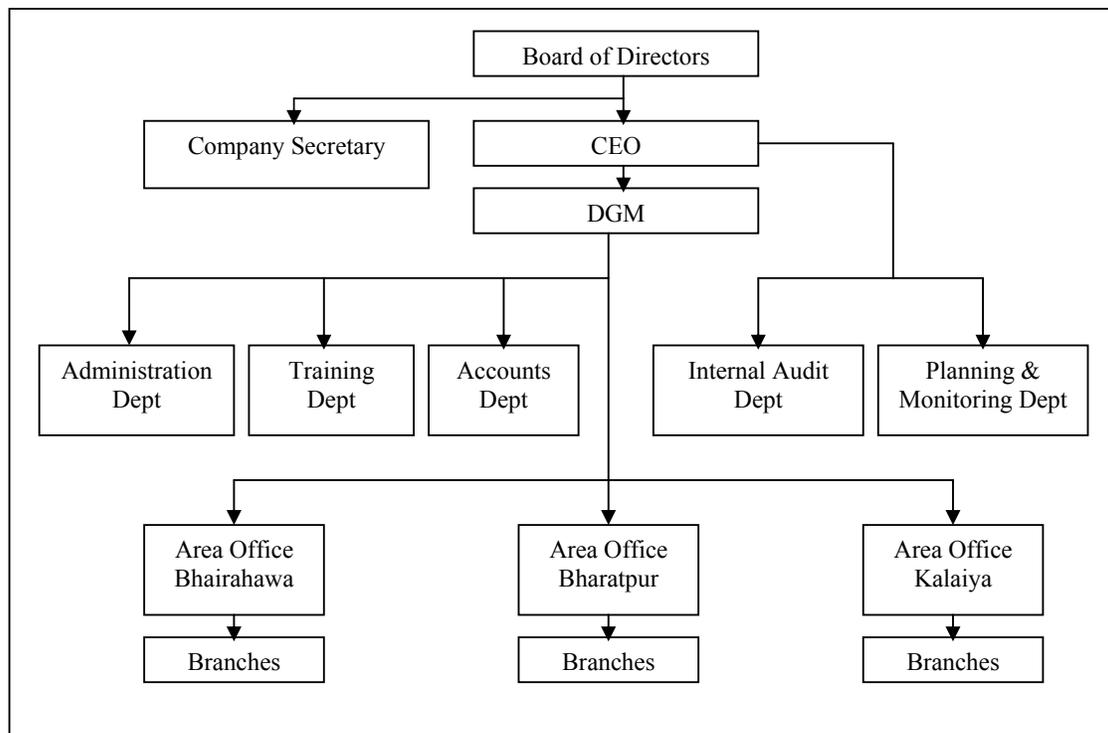


Figure 3. Organizational Structure of NUBL

5.1.3. Equity Structure

NUBL is a non-government developmental bank. It is registered as a development bank with authorized capital of NRs.20 million, issued capital of NRs. 10 million and paid up capital of NRs. 6.7 million as of January 2001. The banks equity structure is shown below.

Nirdhan (the Parent Organization)	12%
Himalayan Bank Limited	12%
Nepal Arab Bank Limited	12%
Grameen Trust, Bangladesh	11%
Everest Bank Limited	12%
Private Sector Individuals	8%
Client of the bank including staff (shares to be issued)	33%

5.1.4 Board Structure

NUBL consists of a five-member board as given below. The bank's board members meet at least six times a year.

Mr. Himalayan Shamsheer JB Rana Chairman of Himalayan Bank Ltd and former Governor of Nepal Rastriya Bank.	Chairman
Mr. Ganesh Bahadur Thapa Expert on Micro-Finance and Former Governor of Nepal Rastriya Bank.	Vice-Chairman
Mr. D.C. Khanna Executive Director of Nepal Arab Bank Ltd.	Director
Mr. B.K. Shrestha Chairman of Everest Bank Ltd.	Director
Dr. Harihar Dev Pant Founding Chairman of Nirdhan and Founder of GBFS, Bangladesh in Nepal.	Executive Director/ Chief Executive Officer

5.1.5. Management Structure

The CEO heads the institution and the DGM is in-charge of day-to-day operations at the Central Office and reports to the CEO. The Central Office has senior managers heading each of the five departments – Administration, Accounts, Internal Audit, Planning & Monitoring and Training.

5.1.6. Area Office Structure

The Area Office is a supervisory office and responsible for group recognition, sanctioning of loan funds, supervision and monitoring of Branch Offices. The area manager heads the Area Office. One Area Office supervises 6 to 11 Branch Offices.

5.1.7. Branch Office Structure

Branch Offices are directly involved in micro-finance operations at the household level as shown in Figure 4. Each Branch Office has a Branch Office Manager, an Account and 6 to 8 Field Assistants. Branch Offices are considered the profit center (or loss center) of the organization as all the transactions are carried out through them. Head Office and Area Offices share income from Branch Offices.

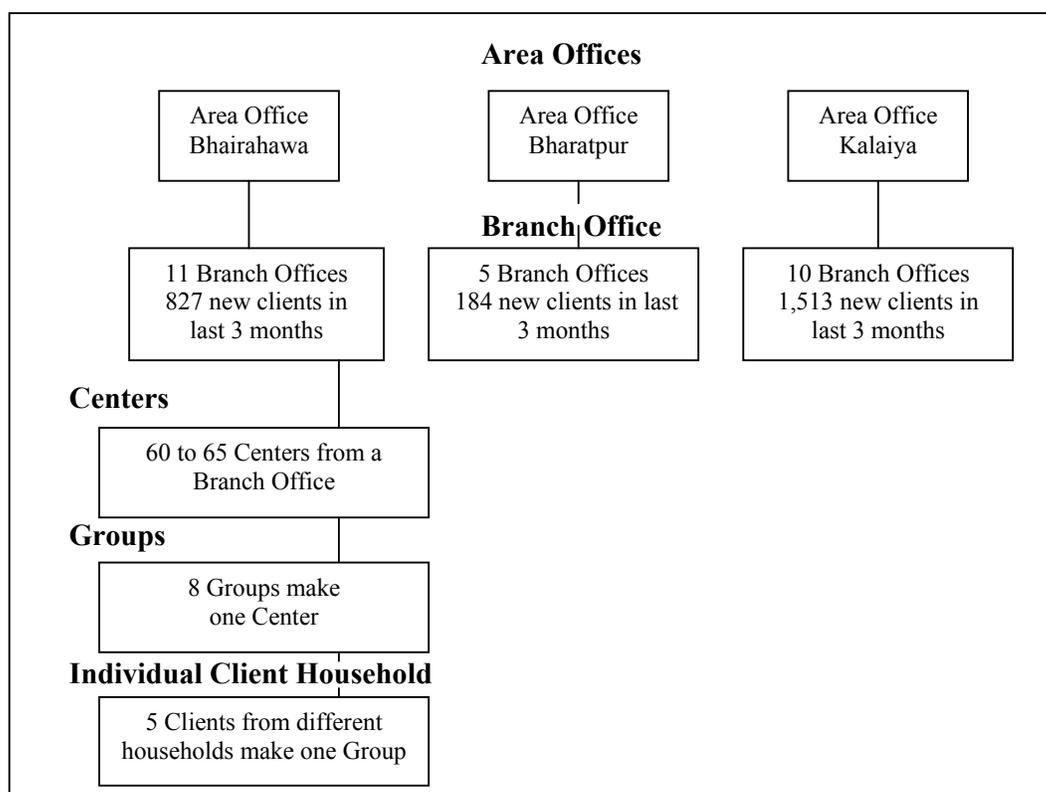


Figure 4. NUBL's management structure

5.2.0. Inception of Nirdhan Utthan Bank Ltd. as a Micro-Finance Institution

5.2.1. Scaling-Up Process of NUBL

NUBL initially started as a Non-Government Organization (NGO) called Nirdhan in 1993, and began financial operation in March 1993 with one loan officer and one field assistant. In November 1998, NUBL was registered as a development bank and obtained a licence for banking activities from April 1999 under the Development Bank Act of 1996. By July 1999, NUBL took over all the financial activities performed by the NGO-Nirdhan by purchasing the NGO's assets and accepting liabilities equal to assets. Today the Nirdhan NGO still exists as a separate entity from the NUBL overlooking educational program as a supporting social service in eight centers of Rupandehi where NUBL operates. The development stages of NUBL are briefly highlighted below in Table 7.

Year	Development stages of NUBL	No. of Staff	No. of Branches	No. of Active Loan Clients	Outstanding Loan Balance in Million NRs.	Ratio of Outstanding loan Balances No. of Active Loan Clients
1993-1994	Early Operation	9	1	521	1.209	2321 NRs./ Clients
1995-1997	Growth and Institutionalization	79	8	4481	16.119	3597 NRs./ Clients
1998-Beyond	Expansion and Formalisation	170	21	15382	65.975	4289 NRs. /Clients
2001		193	23	33941	149.624	4408 NRs. /Clients

Table 7. Scaling-up Process of NUBL

Table 7 illustrates a steady increase in the outreach of the bank. Between 1993 to 2001, the increment in the ratio of loan per client is only negligible relative to the increment in number of staff, branches, loan clients and outstanding loan. This reveals the expansion of targeted group clients.

5.2.2. Product and Services

The criteria set by NUBL for lending without collateral are to family of five members who have less than 0.5 hectare of cultivated land; larger family may have larger area of land in the same proportion. The lending is focused only to the female members. The first loan consists of an amount of NRs. 8,000. The maximum limit of loan without collateral is NRs. 30,000 at 23.6% annualized percentage rate (APR) interest rate with weekly repayment while with collateral it is NRs. 200,000 at 25% APR interest rate with quarterly repayment.

NUBL provides the loan of the following types – general loan, seasonal agricultural loan, seasonal business loan, sanitary loan, housing loan (homestead purchase loan, house repair loan & house construction loan) and emergency loan. Such loans are financed through the bank's own funds. Group fund loans are financed from the group's own fund.

Livestock insurance is implemented through the Credit Guarantee Cooperation.

5.3.0. Performance

As of mid December 2000, total loan disbursed was NRs. 30,655,900 with an outreach of about 34,622 clients. The average loan outstanding per borrower was NRs. 5,446.70 with an average loan size of NRs. 8,731 for the same time period. The cost per unit of money lent decreased from NRs. 0.49 in July 1993 to NRs. 0.07 in December 2000. Similarly, the cost per borrower made decreased from NRs. 3,400 in July 1993 to NRs. 900 in December 2000 clearly indicating efficiency gained in performance.

NUBL is the largest non-government MFI in Nepal and thus its performance and efficiency cannot be compared with other large MFI's that are government owned and implement subsidized micro-credit programmes.

5.4.0. Nature of Political and Other External Constraints Faced by NUBL

5.4.1. Political Constraints

Government failures give a multiplier effect of failures in all sectors, including the rural financial sectors. A decade of Nepal's failed development efforts (Pandey, 1999) has resulted in worsening socio-economic conditions of the rural population.

The multi-party feud (inter and intra party) has resulted in political instability. The World Bank reports "Between 1994 and early 2000, there have been nine different governments (including six coalitions), and notwithstanding strong declarations of intent, there has been no coherent overall drive to promote economic development. Moreover, this period has witnessed increasing politicization, weakening of administrative and institutional capacity; increasing corruption and governance problems....." (The World Bank, 2000).

Such government failures coupled with multi-party feud have propagated the Maoists insurgency or better known as the People's War by the international media based on the Peru's Shining Path ideologies. Over the years, numerous rural banks have been robbed,

records burnt and the premises destroyed by the People's War moment and such incidents have frequently been reported in the national media since 1998. NUBL was rubbed in more than three different incidents as reported in the news clippings in Appendix 2. This not only affects NUBL's future plans of consolidation and expansion in outreach in existing centers but also its goal to achieve self-sustenance.

5.4.2. Perception of the Private Sector

The private sector in Nepal is often perceived as "bad" as it is primarily motivated by profit making even though the private sector provides better benefits in terms of increased efficiency (The World Bank, 2000). NUBL is a private organization and competes with most of the government run rural banks, which are subsidy dependent. NUBL is frequently perceived as being strongly profit-oriented with its higher interest rates (as depicted in Table 10) than the government run micro-credit programmes.

5.5.0. State of Market Competition Faced by NUBL

Table 10 clearly illustrates the state of market competition faced by NUBL. In the formal lending sector, NUBL has the highest interest rate.

	NUBL	PCRW Nepal Bank Ltd.	MCPW Nepal Bank Ltd.	IBP Nepal Bank Ltd.	PCRW Rastriya Banijya Bank	MCPW Rastriya Banijya Bank	BWTP Rastriya Banijya Bank	IBP Rastriya Banijya Bank	SFDP Agricultural Dev. Bank
Interest Rate	23.6% APR	10.5%	10.5%	14%	14%	14%	14%	14%	14%
Total Clients	34622 (Dec' 00)	--	--	--	--	--	--	--	192147
Loan Disbursement Last Year (NRs. '000)	214963 (July'00)	21056	68525	513497	43957	22842	19629	1197868	
Districts Covered	8	34	14	62	52	13	18	68	Decreasing from 75
Collateral (Yes/No)	No	No	No	Yes	No	No	No	Yes/No	Yes/No

Table 10. Comparing NUBL with other government run micro-credit programmes.

5.6.0. Future Direction

The NUBL's way ahead is based on its Business Plan (NUBL, 2000). By July 2002 it has set a target at becoming financially self-sufficient (Adjusted Return on Assets = 0 by July 2000). In future it plans to enter consolidation face strengthening its management team, increase outreach in existing centers, undertake product reviewing and do appraisal based on the CGAP format.

6.0.0. Methodology for Data Collection, Processing and Analysis

Data Collection, Data Processing and Data Analysis are strictly based on the CGAP manual (Henry, et.al., 2000).

6.1.0. Methodology for Developing the Sampling Frame

For assessing the relative poverty of NUBL clients, the household selection for the survey was based on the CGAP manual methodology (Henry, et.al., 2000). The entire sample frame

of the clients and the non-clients were confined to the Terai region as the NUBL only operates in this region.

6.1.1. Households

An individual household as described by Henry et.al. (2000), formed the basis for a sample unit.

Client Household: For the survey, client households considered are only those households who are member of the NUBL within the last 3 months as reported in the FY 2000/01 NUBL report attached to Appendix 3.

Non-Client Household: Non-client households include those that were never clients of the NUBL and contain no other member of the household who is a current or past member of the NUBL. Non-client households were in the same locality as that of client households.

6.1.2. Sample Size

As per the recommendation of the CGAP manual (Henry, et.al, 2000) a sample size of 500 households in the ratio 2 to 3 clients to non-clients (i.e. 200 clients and 300 non-client households) were selected.

6.1.3. Determining a Feasible population Area

This research began the sampling process by considering the entire working area of the NUBL covering the 3 Area Offices spread over 8 districts. The entire working area of the NUBL was stratified into 3 areas on the basis of its Area Office location as per the October 16 progress report attached to Appendix 4.

The NUBL has 3 area Offices – Bhairahawa (Area Office 1), Bharatpur (Area Office 2) and Kalaiya (Area Office 3) in Nepal. These area offices are spread in the fertile plains between Kapilvastu to Rautahat district, covering 8 districts in the south-central Nepal.

6.1.4. Constructing the NUBL Clients Based Sampling Frame

The frame is based on the number and distribution of new NUBL clients within the operational areas of the three Area Offices.

From the 3 Area Offices, Branch Offices having no new clients or those having less than 40 new members in the last 3 months were excluded (referring to FY 2000/01 report in Appendix 3). This excluded Branch Offices with Serial No. 1.1, 1.2, 1.5 from Area Office 1, Serial No. 2.1, 2.2, 2.5 from Area Office 2 and Serial No. 3.9, 3.10 from Area Office 3. This left 8 Branch Offices from Bhairahawa (Area Office 1), 2 from Bharatpur (Area Office 2) and 8 from Kalaiya (Area Office 3), eligible for selecting the sampling frame.

Applying the Probability Proportionate to Size (PPS) technique, two Branch Offices from Area Office 1 and 3 and one Branch Office from Area Office 2 were allocated from each Area Office as sampling clusters. For selecting the actual cluster, draws were made using paper slips for naming two Branch Offices in Area 1, one Branch Office in Area 2 and two Branch Offices in Area 3.

6.1.5. Selecting Actual Clusters

Using the Equal-Proportionate Sampling (EPS) techniques, equal numbers of households were distributed between the clusters (i.e. within the 5 different Branch Offices). Equal numbers of households were selected from each branch cluster (i.e. 1 cluster = 40 client

household and 60 non-client household). This leaves the following sampling configuration depicted in Table 11.

Area	Branch Office	No. of Cluster	No. of Clients	No. of Non-Clients	Serial No.
1	1	1	40	60	Clients 101 to 140
					Non-Clients 141 to 200
	2	1	40	60	Clients 201 to 240
					Non-Clients 241 to 300
2	1	1	40	60	Clients 301 to 340
					Non-Clients 341 to 400
3	1	1	40	60	Clients 401 to 440
					Non-Clients 441 to 500
	2	1	40	60	Clients 501 to 540
					Non-Clients 541 to 600

Area 1 = Bhairahawa,
Branch Office 1 = Haraiya
Branch Office 2 = Belatari

Area 2 = Bharatpur,
Branch Office 1, Tandani

Area 3 = Kalaiya
Branch Office 1 = Prasauni
Branch Office 2 = Madhuban

Table 11. The Sample Configuration

6.1.6. Non-viability of Random Sampling Technique for Client Household

Equal number of client households were selected from each cluster (i.e. the Branch Office). Though initially random sampling from the general list of eligible client households (provided by the Branch Office) was conducted, due to the geographical spread and difficulty of terrain it seemed impossible to collect data even from one or two respondents a day by a single enumerator. Hence, to be more realistic and efficient the following sampling technique was adopted.

6.1.7. Improvised Technique for Client Household

Centers with highest number of new client groups (groups formed within the last 3 months) were selected. Complete client listing from three or four centers of a single Branch Office having the highest number of new client groups within the past three months were compiled. Sampling of clients were carried out on the entire new groups from those centers selected.

Developing the criteria of selecting the entire groups for interviewing from centers with highest number of new clients was conducted for several reasons.

- Meet client households over a manageable area around the center vicinity up to an hours walking distance.
- The survey time coincided with the farming season of threshing rice grains. Because the farmers in the research area used traditional varieties of rice that are photo sensitive, harvesting time in the entire area occurred exactly at the same time, and consequently the threshing time (extending till December) is when everyone is occupied. Meeting respondents during the day and for them to allocate 20 minutes of their time was difficult. Surveying whole group members increased the probability of meeting respondent clients.
- New client members in Haraiya, Belatari and Tandani were small with centers having the highest number of new clients had up to two or three groups in a centre. In Prasauni and Madhuban where there were higher number of new groups, about equal numbers of clients were interviewed from more than 4 centers.

- This selection process was adopted only after realizing the fact it was not possible to select clients from a complete listing of all the new member client households under a Branch Office as they were scattered over a very large area, and therefore rendered as non-feasible with the available time and logistical support.
- This method resulted in zero client replacement (and only five for non-client).

6.1.8. Random Sampling of Non-Client Households

For randomly sampling non-client households, non-clients were selected from the same locality as those of the client households maintaining the ratio of 2:3 (client to non-client). Non-clients were selected from every alternative or the fifth house depending on the size of the village. In sparsely populated villages, alternative non-client households were selected. In villages with more than 60 households, every 5th household was selected.

The settlement pattern in the Terai region of Nepal consists of houses running parallel to the road on either side. Taking the alternate or the fifth house (depending upon the size of the village) in both the lines on either side of the road determined the non-client sampling frame.

The EPI cluster Survey Design (Random Walk) method mentioned in the CGAP manual (Henry, et.al, 2000) was avoided, as the entire dwelling in the survey area was linear parallel on either side of the road.

The non-clients were specifically selected from the same area as those of the clients as demanded by the manual (Henry, et.al, 2000) to remain within the local community or subdivision where sampled MFI clients live.

- It is realized that selecting non-clients from the same communities as that of clients may create a bias in comparison of their poverty, because of the homogeneity of their socio-economic status. The relative poverty differential would be caught more profoundly if a larger geographical area and population were included in the non-client sample. But, the poverty focused MFIs generally target the poor communities as was done by NUBL; the loan amount does not attract the wealthier population. NUBL's mission is to reach the poor; their clients dwell in rural areas less developed. Extending the non-client sampling frame to capture urban population (for example taking the top 30% of the Nepali population and outside NUBL's operational area), the relative poverty assessment between clients and non-clients will be biased and inaccurate.
- To assess the relative poverty of the poor as in this case, the outreach of NUBL to the poor, clients have to be compared to other non-clients from the same area. Then only can NUBL's depth of the outreach amongst the poor be known. Additionally, the need for NUBL, to reach more poor households will also be visible.

6.2.0. Methodology for Data Processing

6.2.1. Data Processing

The 500 questionnaires were edited and coded. The questionnaire is having household level, individual level information.

Assets (Section E)

Value of appliances and electronics.
Value of transport.
Value of landholdings (irrigated and unirrigated).
Quantity of land owned.
Value of animals.
Value of assets per person.

6.3.0. Methodology for Statistical Analysis

6.3.1. Statistical Analysis

The statistical analysis of the research was SPSS W10.

6.3.1.1 Bivariate Linear Correlation Coefficient

The indicator variables were computed from files 1, 2, 3 and 4. Linear correlation coefficients between per capita expenditure on clothes and footwear (as bench mark indicator) and the remaining indicators were calculated as depicted in Appendix 5 (only the significant indicators are recorded).

6.3.1.2. Principal component analysis to estimate a poverty index

This assessment tool develops a relative poverty index through the application of principal component analysis (PCA). The PCA method is applied to determine how information from various indicators can be most effectively combined to measure a household's relative poverty status. The end result of PCA is the certain of a single index of relative poverty that assigns to each sample household a specific value, called a score, representing that household's poverty status in relation to all other households in the sample. The index from the combination of individual indicators are significantly correlate with one another on the basis of a shared underlying poverty component was developed.

Various iterations were tried with the reported indicator variables. The criteria for the selection of the results were value of the Kaiser-Meyer-Olkin (KMO) and percentage of total variance explained by the components. Principle Component Analysis (PCA) between the final two outputs where KMO was equal to 0.875 with 41.704% of the total variance explained and the second KMO value was 0.872 with 44.92% of the total variance explained were compared. Amongst these two outputs, the second output was accepted to meet the main objective of the study as attached in Appendix 6.

6.3.3. Cross-Tabulation and Chi-Square Test

Cross tabulations and chi-square were carried out at cluster levels and between clients and non-clients to see significant differences. Chi-square tests were run to look at the difference among different clusters for client and non-client households in their characteristics such as education, occupation and the marital status if the household head.

6.3.4. T-Test on the Difference Between Means

Results of interval and ratio-scaled data were analyzed using the t-test of means. Variables such as family size, number of children, percentage of female-headed households, average size of landholdings, percentage of adults who can write, and the average age of children were tested to see the difference between their means.

7.0.0. Reflection on Field Experience, Feedback on Questionnaire and Data Analysis

7.1.0. Enumerators Field Experience

7.1.1. Positive Attributes

1. Enumerators were introduced as students as that was the easiest way to motivate the clients and non-clients.
2. No trouble with replacements were encountered as there were only five replacements for non-clients.
3. Staff of NUBL were very co-operative. They introduced the clients and also the non-clients around the same village.
4. Health precautions were taken such as eating hygienic food during the field visit and no one became sick.
5. Throughout the fieldwork, the enumerators worked in team spirit.
6. Finished research work successfully within the given time frame.

7.1.2. Problems Encountered During Interviews

1. It took a longer time to motivate the non-clients than the clients.
2. The research team encountered language barriers as the study area – the Terai region, is mainly populated with non-Nepali speaking communities.
3. A sense of insecurity was felt in the field due to the prevalence of the Maoist insurgency in the country.
4. For security reasons the research team stayed in urban centers that were very far from the field areas requiring long journeys daily.
5. The field visit coincided with the farming season of threshing rice when the people in rural areas were very busy.

7.1.3. Enumerators Feedback on Questionnaire

1. Section B Expenditure on Cloths/Footwear: Answers were estimates and took a long time to get responses, especially in families with many members.
2. Section C Luxury Food: There was a diverse range of luxury foods. In the same manner it was also difficult to identify inferior food.
3. Section C 6, 7, 8: Questions were very sensitive. The enumerators felt uncomfortable asking these questions to most of the non-clients who were average or well off.
4. Section C 11: When asked to the poor, they had expectation for receiving the money.
5. Section E 3: The enumerators found difficulty in differentiating the differences between poor and average, and average and well off.

7.2.0. Feedback on Questionnaire

There are numerous section in the CGAP manual (Henry, et.al., 2000) concerning the contents of the questionnaire and the description of the analysis where improvements can be made.

7.2.1. Context of Questionnaire

The indicators picked for the assessment of relative poverty were readily applicable in Nepal with only minor changes to the questionnaire. Minor changes were made so the essence of the questionnaire remained the same, as it was a good proxy for picking up the poverty levels of households. The questionnaire used in the research is attached in Appendix 7.

However slight changes could vastly improve the effectiveness of the questionnaire. Changes made, proposed changes for future and proposed additional indicators for improving the manual are discussed below.

7.2.2. Changes made to the Questionnaire

Heading: To avoid the attention of curious people the heading in the questionnaire was removed. In many places, people in villages do not like Nepalis working for International agencies.

Locality and Cluster: Changed to Area and Branch Office to fit NUBL structure.

Figure 3.2 for Section B1: This section was increased to cover larger family size. Similarly, **Figure 3.2 for Section B2** was also increased for the same reason.

C9 (6) And addition of (7): The text was changed into "More than a Month" where it was initially read "Less Frequently than a Month" to make it sequentially ordered. And (7) was added to represent "none" for those that did not purchase any staples.

: "Tarpaulin and Plastic Sheets" moved to (2), "Grass" moved and lumped together with "Branches and Twigs", and "Brick Tiles", moved to (3). These changes were made after the pre-test of the questionnaire.

: Added "Twigs/Crop Residues" and "Bio-Gas" in fuel list. This addition was made after pre-test.

: Added "Fish Ponds" in livestock category, "Buses/Trucks" and "Tractors" in the transport category; "Washing Machine" was replaced with "Sewing/Knitting Machine"; added and "Water/Treadle Pumps."

7.2.3. Proposed Changes for the Future.

Section B Household Structure

Maximum Level of Education

In this section of the questionnaire, maximum level of schooling is ambiguous. The first variable- (1) "Less than Primary" also include those that never attended schooling. There should be an additional question prior to this asking if the people being surveyed have had some education or not. This could then be followed by the question on maximum level of schooling. Doing so would enable to distinguish between those not educated at all and those that attended schooling level of less than primary. This would also capture the population educated through "non-formal" adult education programmes. The present questionnaire combines those that were never educated and those that have education level of less than

primary, which in reality are two significantly different categories. Additionally the current questionnaire only takes into consideration of the formal education process.

Clothes/Footwear Expenses for the Last 12 Months

Though, expenses on clothing and footwear are relatively good proxy of income, in Nepal due to social/cultural pressure relatively high expenditure on clothing becomes necessary even for the poorer households. Expenditure on clothing may seem relatively high in spite of low food security and low quality dwelling. People would rather forego food and nutrition necessities to clad in a fashion to meet social expectations. The climatic conditions also require expenses on winter clothing. Additionally, in households where children attend school, clothing expenses become quite high for their school uniforms.

B2 Children Members of Household (from 0 to 14 years)

In rural areas, access to education for children below 14 years of age is a good indicator of poverty status. It is especially true in the case of girl children. It is so for two reasons. Firstly, poor families are unable to pay the initial amount of money needed in public schools. Even if they pay, they prefer to pay for boys' schooling rather than girls'. Secondly, in poor households girls are retained back at home from schooling to help in household chores and agricultural tasks. Due to the assumption (in the manual) that all children under 14 years of age automatically go to school, prohibits from capturing these poverty parameters. Gender and schooling level should be added to section B2.

Section C

Food-Related Indicators

C1 to C4: One question could have avoided the three. If there was an option to train the enumerators to do the screening i.e. exclude special events and guests, the number of meals eaten can easily be recorded. This would not affect the analysis in any way. The ineffectiveness of the elaborate screening process used in the manual is portrayed by the fact that it cannot capture special events such as the month-long *ledd* festival (this Muslim festival fell during the research period and the Muslim community is quite large in Terai region where the research was conducted), which is only screened by the enumerators' intuition.

C5 Luxury Food: There are two issues related to this section. Firstly the manual expects to take into account seasonality, price fluctuations, communities taste and preference in a preference wise manner from Luxury Food 1 to Luxury Food 3. Asking the respondent yields a diverse range of luxury foods – both preference wise and variety wise. This is because even within a village there exists different ethnic tribes, religion and different economic conditions, and thus as a result a diverse range of food taste and preference habit exists. For a certain household, Luxury Food 1 might represent meat/fish, and for the other that might be the third preference and the first might be vegetables instead. The cost for meat/fish and vegetable is significantly different.

Secondly, in few instances where the poor never had any luxury food before, luxury food was not defined and therefore left blank. In many instances only one luxury food was identified. In places where luxury food was identified but not eaten, the frequency was '0'.

It is not possible to compute a common aggregate of Luxury Food 1, Luxury food 2, and Luxury Food 3 as the preferences are diverse so is their variety.

For future research it is recommended that after initial reconnaissance of all the research localities (area and ethnic tribe), luxury food items should be identified beforehand into three groups according to its cost (e.g. Luxury Food 1: Rice with Goat/Chicken, Bamboo-Shoot, Lentils and Rice; Luxury Food 2: Rice Pudding, Indian Sweets, Bread with Lentils; Luxury Food 3: Noodles, Milk, Rice with Vegetables, Eggs). The respondents irrespective of agriculture season, ethnic tribe and religion, must be asked about their consumption frequency with this range for each of the three categories. This is not made explicitly clear in the manual.

C9. Staple: Similarly respondents must be given a choice of staples for the three categories as recommended above for Luxury Food.

Section E

Assets Based Indicators

E1. Value of Land Owned: Discrepancy was found in the value of land as quoted by the respondents even within a relatively small area. Taking the opinion of a local land evaluation arbitrator could minimize this discrepancy.

7.2.4. Proposed Additions to Questionnaire

Amount of Loan Borrowed from the Study MFI

In this section, there should be a question immediately following the amount of loan borrowed from the study MFI asking where the loan money was invested if the money was already borrowed. For instance, in this study area lactating buffalo were most commonly purchased from the loan. This led the clients to enjoy luxury food (milk) for seven days of the week but the questionnaire used in research could not capture this facet. Without knowing about the investment of the loan, influences were difficult to make.

Indebtedness of Respondent

Indebtedness is also a powerful indicator of poverty. Household indebtedness (other than MFI loan) may be included in household data.

Ethnicity and Religion

The questionnaire does not take note of ethnicity and religious diversity in Nepal. In terms of ethnicity, Nepal is diverse. Education, gender issues, food habits, occupation and control over productive resources, e.g. land, are directly correlated with religion and ethnic background.

7.3.0. Feedback on Data Analysis

In the description of the analysis process, there are a couple of ambiguities as described below.

Socio demographic indicators are crude better to refine and be more specific.

Correction for Using the SPSS Aggregate Data Procedure

For computing the aggregate file mentioned in Table 6.4 of the manual (Henry, et.al., 2000), in the case of 'select cases' and without 'select cases'; individual aggregate files should be

created and merged. Otherwise the last command will dictate the file, e.g. FHH will only give 25 cases with female-headed households for all aggregate variables.

Education and Occupation

For the computation of Education and Occupation of various categories, separate individual aggregate files should be created individually and the SYSMIS should be recorded as '0'. This could be added in the manual.

Dependency Ratio

Old age (59 years of age and over) is not included in the dependency ratio mentioned in the manual. The manual (Henry, et.al, 2000) makes the assumption that the elderly (59 years of age and over) are economically active, which they are not. It also does not match with the national definition of dependency ratio.

Kaiser-Meyer-Olkin (KMO) Value

The manual needs to mention how to choose the various outputs when the KMO value is relatively declined, but the percentage of variance explained by the first component is increased.

7.4.0. General Comments for Improving the Manual

Family and Household

The manual frequently uses the term family while referring to household. The alter term should be used.

Creating File (F2adult.sav)

In the File information (F2adult.sav) section of the manual (Henry, et.al., 2000), it recommends clients and non-clients to be coded 1 and 2 respectively, else where it is coded as 0 and 1 for all files. During the analysis, this discrepancy was recoded as 0 and 1.

7.5.0. Proposed Additional Indicators for the Manual

Health Indicator

Access to health care services could have been used as an additional indicator for assessing poverty levels. The questionnaire could have asked whether the sample population used informal or formal health care services if used at all.

Out-Country and In-Country Remittance

Remittance plays an important role in assessing the poverty levels. The Section B, Status of the head of HH column of the questionnaire, only asks' if the household head is contributing to the household economy by mostly living away. This should be asked to other adult household members as well, and the amount of remittance fund a household receives annually could also be asked.

Agriculture Productivity

Taking the agriculture productivity by asking the area of land owned and the yield could be a good proxy for assessing poverty levels. Agriculture yield encompasses a wide range of factors such as land type (at least in Nepal, size of land hardly matters, there are several categories of agricultural land on the basis of fertility and gradient), technology adopted, irrigation facilities and the propensity to save.

8.0.0. NUBL Outreach

8.1.0. Comparisons at National Level

HDI Rank	Country	1975	1980	1985	1990	1998
144	Nepal	0.291	0.328	0.369	0.414	0.474
142	Bhutan	--	--	--	--	0.483
146	Bangladesh	0.329	0.348	0.381	0.412	0.461
128	India	0.405	0.431	0.470	0.510	0.563
135	Pakistan	0.352	0.383	0.420	0.462	0.522
84	Sri Lanka	0.612	0.648	0.676	0.699	0.733

Table 11. Ranking Nepal against other SAARC countries in terms of HDI

Nepal, Bhutan and Bangladesh are categorized as "low human development" countries by the UNDP (2000), Sri Lanka, India and Pakistan are categorized as "medium human development" country. Nepal's Human Development Index of 0.474 (Ratio 4 in manual) in 1998 ranks it 144 out of 174 countries, clearly indicating that Nepal is poorer than the average for developing countries.

8.2.0. Comparisons at Area Level

8.2.1. Human Development Indices of NUBL Operated Areas

Table 12 ranks the entire working areas of NUBL operated areas in terms of Human Development Indices (HDI).

Districts	HDI Rank	Life Expectancy		Adult Literacy		Mean Year of Schooling		Proportion of Earned Income		GDI Index	GFM Index
		Female	Male	Female	Male	Female	Male	Female	Male		
Kapilvastu	56	51.1	53.5	13.64	43.80	0.865	2.672	0.373	1.585	0.235	0.132
Rupandehi	19	57.8	60.5	25.64	58.84	1.493	3.439	0.450	1.525	0.319	0.148
Nawalparasi	51	51.1	53.5	21.04	57.28	1.259	3.007	0.421	1.575	0.256	0.135
Chitwan	16	54.2	56.5	31.80	68.50	1.599	3.427	0.556	1.450	0.330	0.150
Makwanpur	45	42.6	53.0	18.59	49.45	1.264	2.248	0.473	1.500	0.231	0.144
Parsa	22	56.2	58.5	15.66	49.08	0.721	2.611	0.426	1.507	0.298	0.123
Bara	44	56.2	58.5	10.19	42.38	0.527	2.313	0.359	1.575	0.253	0.090
Rautahat	47	56.2	58.5	9.26	34.94	0.497	2.060	0.232	1.694	0.242	0.078

Table 12. Gender sensitive human development indices of NUBL operated districts.

¹HD = Human Development Rank Kathmandu = 1, Mugu = 75

²Nepal: Female = 52.4, Male = 55.0

³ Nepal: Female = 21.33, Male = 54.32

⁴ Nepal: Female = 1.132, Male = 2.555

⁵ Nepal: Female = 0.361, Male = 1.634

⁶GDI=Gender sensitive Development Index, Nepal/average= 0.267, Kathmandu=0.460, Mugu= 0.094

⁷GEM = Gender Empowerment Measure, Nepal 0.191, Lalitpur = 0.263, Achham & Baitadi = 0.0038

Source: NESAC, 1998

At the National level, NUBL has been operating in districts that are near average to below average districts for Nepal from the 1998 Human Development Report (NESAC, 1998) as

depicted in Table 12. Majority of the less developed districts are in the hilly and the mountainous region, their comparisons are not included as they are outside the NUBL's operational area and the sample frame.

Three districts – Kapilvastu, Nawalparasi and Rautahat (out of total of 75 districts) are the districts that are ranked significantly below the average. On the other hand, Chitwan, Rupandehi and Parsa are significantly above the average. The remaining districts Bara and Makwanpur are slightly below the average district for Nepal.

Among eight districts where NUBL is currently operating Chitwan district fairs as the most well off district in terms of literacy/education, income and empowerment of women. In the same token Makwanpur district ranks the lowest in terms of general human development indices but ranks quite high in terms of women's empowerment compared to districts like Rautahat, Bara, Parsa, Kapilvastu and Nawalparasi. In districts like Kapilvastu, Parsa, Bara and Rautahat, the overall literacy/education status is low and there exists a wide gender gap in literacy/education. Similarly, in these districts women's share of earned income in comparison to that of men is relatively low compared to that of Chitwan, Makwanpur and Rupandehi.

8.2.2 Poverty Ranking of Research Areas

Poverty ranking of research areas (Branch Office areas) is calculated in two ways. Firstly, it is ranked by the researchers and compared to the national HDI ranking (NESAC, 1998) as depicted in Table 13. Secondly, it is ranked as weighted poverty level described in the CGAP manual (Henry, et.al., 2000) as shown by Table 14.

Branch Office Area	Ranking of research (Branch Office) areas by the research Team (out of 5 Branch Office areas, 5 th being the least developed area)	Total Population of old NUBL clients (11/19/00)	Districts touched by research (Branch Office) area	Districts ranked by Nepal Human Development Report 1998 (out of 75 districts, 75 being the bottom)	Total Population by district (1991)	Area in sq. km.
Haraiya	5 th	1426	Kapilvastu	32	371778	1738
			Rupandehi	19	522150	1360
Belatari	2 nd	1457	Nawalparasi	51	436217	2162
Tandi	1 st	1800	Chitwan	16	354488	2218
Prasauni	3 rd	1213	Bara	44	415718	1190
Madhuban	4 th	1292	Rautahat	47	414005	1126

Table 13. Comparing poverty ranking by researchers to the national data

Sources: NESAC, 1998
CBS, 1997

The table above compares research teams' ranking of the research areas with that of the district's HDI ranking (NESAC, 1998). The area under Haraiya Branch Office is regarded as the least developed area by the research team despite the fact that Rupandehi, one of the two districts where the Haraiya Branch Office centers are spread, is one of the better districts in Nepal as depicted by column 5 of Table 13. This differential in ranking of Haraiya is one

example reiterating the fact that NUBL centers are mainly found in least developed rural areas of the district. The socio-economic conditions of the population dwelling in such rural areas are significantly lower to those dwelling in urban centres of the same district.

Thus it can be inferred that NUBL operates in the least developed rural areas of districts that are mainly around average or slightly better than average districts. The table also reveals a rather small outreach in terms of the clients compared to the population of the district. To get a more detailed description of the research areas as described by the research team, see Appendix 8.

Table 14 as shown below, reports the poverty rating by weighted poverty level of the Branch Office areas.

Branch Office	District touched	Poverty Level of general population (1 being worst 5 being best)	Population of active clients	MFI weight based on share of client base	Weighted poverty level
Haraiya	Kapilvastu Rupandehi	1	1426	0.045	0.045
Belatari	Nawalparasi	4	1457	0.046	0.184
Tandi	Chitwan	5	1800	0.057	0.285
Prasauni	Bara	3	1213	0.039	0.117
Madhuban	Rautahat	7	1292	0.011	0.082

Table 14. Branch Office area poverty rating of sample clusters.

The Ratio 3 of weighted poverty level at the Branch Office level (cluster level), based on the Ratio 3 methodology (Henry, et.al, 2000) indicates poor regions of the country being served by the NUBL. This can further be verified by comparing it to Table 18 (in section 9.4.0). Tables 14 & 18 show Madhuban, Parsauni and Haraiya as the poorest areas.

8.3.0. Comparisons at Local Level

Referring to Table 17 in section 9.4.0, **Ratio 1** as mentioned in the manual (Henry, et.al., 2000) is 1.33, implying that at the local level, the proportion of the poorest households among the NUBL's clients are greater than that of the general population. That is to say a more extensive outreach to the poorest households within the community/village.

Similarly, **Ratio 2** as mentioned in the (Henry, et.al, 2000) is 0.47, indicating that at the local level, compared with the non-client population, a smaller proportion of client households fall into the less-poor-group. In other words, the outreach to the better-off in the local areas is less.

9.0.0. Analysis of Data and Interpretation of Results

9.1.0. Description of the Main Variables for the Sample and Comparison with National Variables

9.1.1. Household Size

The household size ranged from 1 to 22 member/members per household. The mean number of members was 6.4. Compared to the National average of 5.7 for the country as a whole and 6.1 for the Terai region (CBS, 1996), the household size of the sample depicts the reality of a larger household size in Terai region.

9.1.2. Female Headed Households (FHH) and the Status of Household Head

The proportion of female headed households (FHHs) was quite low compared to the National and Terai region data. In the sample, there were only 25 FHHs, which is only 5% of the total sample households. The National data for FHH is 13.6% while in Terai it is 9.5% (CBS, 1999).

Majority (92%) of the household heads were permanently staying at home with their spouses present. 6% of the household heads were widowed or a widower with equal number of man and women (3% man and 3% women). The remaining 2% of the household heads were mostly leaving away from home but contributing regularly to the household economy. This category of household heads comprised of men only.

9.1.3. Literacy Status and Educational Status

Literacy Status: A vast majority of households (91%) had at least one or more adult member/s who could write. However, the nine percent households where not a single adult could write may seem low compared to the households with adults who could write. Considering the household size of 6.4 members, it is disturbing not to find a single member 15 years and above who could write.

In all client households (i.e. 200), at least one member (the client herself) was reported who could write because of the MFI's condition to lend money to only those who could sign their names.

The literacy status could not be compared with the national data because the national definition of literacy "is to know how to read and write with the ability to understand and perform simple arithmetic calculations" (NESAC, 1998), rather than knowing how to read and write (CGAP's requirement). However, during 1995/96, the literacy rate for people 15 years and above was 19% for females and 53% for males (CBS, 1996). The current national adult literacy rate is 21.7% for females and 56.9% for males (UNDP, 2000).

Educational Status: In the sample population more than half (54%) of adults had less than primary level education. This category includes people with no schooling also. Adults attending and completing primary school comprised 18%. Adults attending technical schools were only 0.2%. The proportion of adults attending and completing secondary school was 13% while those who attended and completed college/university comprised only 5% of the total adult population.

During 1995/96, people 15 years and above who never attended school comprised of 72% nationally. In rural areas they comprise of 74%. Those who attended school in the past comprised 23% nationally and 21% in rural areas. Those who were currently in school comprised 5% nationally and the same for rural Nepal (CBS, 1996). Compared to the national data of 72% never attended school, the sample population seems relatively better educated as almost 46% has attended at least some primary school and above. However, in clusters like

Haraiya, Parsauni and Madhuban which are relatively remote, only 37% of the adult population has attended some primary school and above. In the remaining two clusters like Belatari and Tandi, which are relatively developed, have as high as 59% who have attended some primary school and above.

9.1.4. Occupational Status

Sixty one percent of the employed population in the sample is engaged in self-employed agriculture. While at the national level 71% of the employed population is self-employed in agriculture. In the Terai region, 65% of the employed population is self-employed in agriculture (CBS, 1996).

The proportion of the sample population engaged in non-agriculture enterprise comprise of 17% of the total employed. While the CBS (1996) states that the proportion of self-employed outside of agriculture is 7.7% of the total employed. In Terai region, the same category of population comprises 8.4% of the total employed. The households engaged in non-agriculture enterprise comprise of the households with marginal landownership e.g. Tadi and Madhuban.

The proportion of salaried workers in the sample is 9.8% of the total employed. The NLSS (1996) data for the country reveals 9.5% of the total employed engaged in wage outside agriculture.

The proportion of casual workers in the sample is 12.4% of the total employed. Generally, the agriculture sector wage labourers reported as casual worker in the current study. The NLSS (1996) data also revealed the proportion of employed engaged as wage earners in agriculture to be 12.2% for Nepal.

The proportion of unemployed in the sample is about 2% only, which is relatively lower than the national average of 4.5% (CBS, 1996). However, if the present study included the categories like unwilling to work/retired and not able to work/handicapped (as in national counting) as unemployed, then the proportion of unemployed would be 4% in the sample.

9.1.5. Dependency Ratio (Child and Unemployed)

The child dependency ratio of the sample is 0.65. This is computed by taking the ratio of the total number of children up to 14 years of age to the total number of the adult (15 years and above) population as required by the CGAP manual (Henry, et.al., 2000). This data could not be compared with the national data because the national dependency definition includes children 0 - 14 years and elderly above 59 years of age (CBS, 1996).

The unemployed dependency ratio (for 15 years of age and over) in the sample is 0.05. This is computed by taking the ratio of the total number of unemployed adults (unemployed looking for job, unwilling to work/retired, not able to work/handicapped) to those employed (self-employed in agriculture, self-employed in non-agriculture, casual workers, salaried workers and domestic workers).

The total dependency ratio for the sample (child dependency + unemployed dependency) is 0.7.

The NLSS (1996) dependency ratio for Nepal is 114.68 per 100. This ratio is computed by the percentage of dependent population (0 - 14 years and above 60 years of age) divided by

the percentage of economically active population (15 - 59 years of age). According to the World Bank data, the dependency ratio for rural Terai is 2.3 per earning person. This is computed by taking the ratio of total household members to earning household members (World Bank, 1991).

The reason for lower dependency ratio in the sample is because of the greater value of the denominator (adult ages of over 59 years were included in the economically active population, an assumption made by the CGAP manual).

9.1.6. Structure of Dwelling

Number of Rooms:

The average person per room is 2:1 for the sample. The World Bank report (1991) shows 3.7 persons per sleeping room for the poor groups of the Terai and 3.0 for the non-poor of the same region. The differences in the data for the persons per room and the persons per sleeping room is due to the differences in their definition. The current study's definition included rooms used for storage, cooking, etc. used by the households for their living quarter (Henry, et.al, 2000). However, The World Bank's definition was rooms used for sleeping at night. The latter definition is more specific and only considers sleeping rooms.

The mean room per household is 3.02 for the sample while the same is 3.04 for Nepal and 3.17 for the Terai region (CBS, 1996).

Roof Type:

SampleData		Nepal Data (CBS, 1996)		Terai Data (CBS, 1996)	
Branches and Twigs or Grass	26%	Straw/Thatch	50.66%	Straw/Thatch	53.6%
Tarpaulin, Plastic Sheets	1.4%	Galvanized Sheets	11.21%	Galvanized Sheets	7.27%
Iron Sheets	6.2%	Concrete	5.71%	Concrete	6.31%
Concrete	22.6%	Tile/Slates	28.13%	Tile/Slates	31.58%
Brick Tiles	42%	Others	4.30%	Others	1.25%
Stone or Slate	1.6%				

The most remarkable differences exists in the use of concrete between the sample data and the national data. In the sample, however, nearly 30% of the non-clients use concrete materials while using concrete for roofing in the client group was only 13%.

Exterior Wall Type:

Sample Data		Nepal Data (NLSS, 1996)		Terai Data (NLSS, 1996)	
Tarpaulin, Plastic Sheets or Branches and Twigs	15%	Wood/Branches	24.91%	Wood/Branches	48.71%
Iron Sheets	0.4%	Others	12.57%	Others	25.92%
Mud Walls	50%	Mud Bonded Bricks/Stone	51.84%	Mud Bonded Bricks/Stone	16.63%
Brick or Stone with Mud	8.8%	Cement Bonded Bricks/Stones and Concrete	10.68%	Cement Bonded Bricks/Stones and Concrete	8.73%
Brick or Stone with Cement Plaster	25.8%				

Like the roofing material, the use of concrete for walls is also more prevalent in the sample population than the national and Terai region data. This is because in the sample 34% of the

non-clients use brick or stone with cement plaster, while only 14% of the clients use the same.

Floor Type:

Sample Data		Nepal Data (CBS, 1996)		Terai Data (CBS, 1996)	
Mud/Dirt	77%	Earth	90.4%	Earth	91.35%
Wood	1%	Cement	5.08%	Cement	4.22%
Cement	19.8%	Others	4.52%	Others	4.42%
Cement with additional covering	2.2%				

Similar to the case of the use of cement for building roofs and walls, the use of cement for flooring in the sample is more common. The sample using concrete for flooring is 30% for non-clients and 11% for clients.

Electricity Supply:

In the sample 65% have no connection while 32% have their own connection and the remaining 3% use shared connection. The 35% with electricity connection is very high compared to the national average of 14% (CBS, 1996), but a large number of these households have illegal connection through pole hooking.

Fuel used for Cooking:

Sample Type		Nepal Data (CBS, 1996)		Terai Data (CBS, 1996)	
Dung	6.6%	Cow Dung/Leaves/ Straw/Thatch	25.82%	Cow Dung/Leaves/ Straw/Thatch	53.06%
Collected Wood/ Twigs/Crop Residue	59.2%	Wood	67.74%	Wood	43.22%
Purchased Wood or Sawdust	22.4%	Kerosene	4.62%	Kerosene	2.44%
Charcoal	0.2%	Gas	0.99%	Gas	0.32%
Kerosene	6.2%	Other	0.83%	Others	0.96%
Gas/Bio-Gas	5.2%				

9.1.7. Assets

Of the sample, 16% clients own a radio while 14% of non-clients own the same. Similarly, 13% of the clients own a television while 7% of the non-clients own the same. However, using the T-test for equality of means, no significant differences were found between the values of radio and television owned between the clients and the non-clients.

9.1.8. Landholding

The above table shows that in the sample, 5% of the households are landless. Among the landless there are more non-client households than the client households. The landless non-client households are observed to take risk-aversion behaviour (by not taking MFI loan) due to their landlessness.

	Client	Non-Client	Total
Landless	8 (4%)	17 (5.7%)	25 (5%)
< 0.5 ha	191 (95.5%)	251 (83.7%)	442 (88.4%)
0.5 - < 1.0 ha	1 (0.5%)	21 (7%)	22 (4.4%)
1.0 - < 3.0 ha		10 (3.33%)	10 (2%)
> 3.0 ha		1 (0.33%)	1(0.2%)

Table 15. Distribution of land between clients and non-clients.

Comparing to the national data in Table 16, the majority of the sample households (88%) belong to the lowest category of agricultural landholders (i.e. < 0.5 ha). Among clients the households belonging to this category is even larger (95.5%).

	< 0.5 ha.	0.5 - 2.0 ha.	> 2.0 ha.
Nepal	40.13%	47.04%	12.82%
Terai	33.18%	47.04%	19.75%

Table 16. Distribution of agricultural households with land

Source: CBS, 1996

According to the World Bank (1991) data for Terai region in Nepal, 45.4% of the households cultivate < 0.5 hectare. The average size of the land is 0.09 hectare for this category. Only 2.8% of the cultivated land in Terai falls under this marginal category. This shows that the vast majority (88%) of the sample households belong to the marginal landholder category.

This data reveals that the MFI has reached the marginal farming and non-farming households.

9.1.9. Food Security

Majority of the sample households (87%) reported that they had enough to eat during the past month. However, about 12% reported that they did not have enough to eat ranging from one to seven days. About another 1% reported that they did not have enough for more than seven days. Though those reporting food deficit consists of only 13% of the total households, it is really alarming considering that the data was collected immediately after the harvest season, i.e. December - January.

Similarly, 80% of the households reported that they did not have any food-deficit-month in the past year. However, an alarming 20% reported that they did not have enough to eat at least one day per month during the past year. Five percent of those reporting food-deficit-month reported that they had food deficit for three months or more.

When asked about the inferior food served in the past week, 18% reported that they served inferior food for two or more days. Another 12% reported that they served inferior food at least one day in the past week.

To find out about their food security situation, the respondents were asked along their stock of staple food. Thirteen percent of the households reported that they had stock of staples for less than a month only. Another 22% reported that they had stock for two to six months. Forty five percent of the household reported that they had stock for more than six months. The remaining 20% of the respondents did not want to disclose their stock of staple. Among those reporting of staple for more than six months, 68% belongs to the non-client group. However, consideration should be taken of the present sharp decline (over 100% decline in 2000/01 compared to 1999) for the price of rice grains in December - January. This could have led even the marginal farmers not to sell their rice grains and report of the stock as staple. When asked if they had NRs. 700/800 extra money how much would they spend on

food, more than half of the respondents (57%) reported that they would spend all or at least some money on food. While the remaining 43% of the respondents reported that they do not need extra money to buy food; 65% of the respondents in this category were from the non-client group.

From field observation it was found that greater number of clients enjoyed milk, a luxury food for seven days a week than non-clients. This was due to the fact most micro-credit investments were made on purchasing of buffaloes. A local breed lactating buffalo cost NRs. 12,000 and the first loan amount is 2/3rd the cost of the buffalo, making the purchase of buffalo relatively easy. Due to the limitation of the questionnaire mentioned in sections 7.3.2 for luxury food and 7.2.4 for the investment of loan, a break down of luxury food (variety, preference and price wise) could not be computed between the clients and the non-client groups and similarly there were no provision to see the proportion of investment on buffaloes.

9.1.10. Expenditure on Clothing and Footwear

In the sample, the per capita expenditure on clothing and footwear in the past year, ranged from NRs. 83 to Rs. 5,000. The mean amount was NRs. 1,297 (approximately \$ 18 in 2000).

The expenditure for clothing per household in 1984/85 was NRs. 672 per annum for a poor family categorized by the World Bank. The same publication reports the per capita expenditure for clothing during the same period at NRs. 96 (approximately \$ 6 in 1984/85), (World Bank, 1991).

In the sample, many members of the households especially those from poorer households are found not to spend a single rupee for their clothing and footwear in the past year. A vast majority of households, both the client and the non-client households are found to spend substantial amount of money on children's school uniforms.

In the NLSS (1996) national study, 52% of the households indicated they had less than adequate clothing.

9.2.0. Analysis of Data

9.2.1. Comparative Analysis between Client and Non-Client Groups

Comparative analysis were performed to look at the difference between the client households and non-clients households in their characteristics such as family size, number of children per household, percentage of female headed households, average size of landholding, average value of landholding, percentage of adults who could write and the average age of children.

No significant difference among the client and non-client households was found in terms of their family size. The mean number of family members in the client households is 6.5 members, while in the non-client households it is 6.2 members.

Similarly, no significant difference was found in the number of children per household in these groups. The mean number of children in the client households is 2.55 and for the non-client households it is 2.54. Furthermore, there was no difference in the average age of

children between the groups. The mean age of children for client households is 5.9 years while for the non-client households it is 6 years.

In the same token there was no significant difference in the percentage of female-headed households. The mean for client households is 4% and for the non-client households it is 5.7%.

However a significant difference was found between these two groups in the size and the value of landholdings. The average size of landholding for the client group is 0.06 hectare while for the non-client group it is 0.2 hectare. Similarly, the average value of landholding of the client group is NRs. 32, 424 while for the non-client group it is NRs. 76,886.

These two variables are crucial indicators of the poverty status of the households. Though both groups belong to marginal landholdings groups as stated above, the significant differences among the groups reveal that the client households are poorer than non-client households.

Significant difference was also found in the percentage of adults who could write. The mean number of adults who can write is 73% for the client households while for the non-client households it is 66%. The higher proportion in favour of the client households is because of the MFI's intervention in the literacy of women.

9.2.2. Comparative Analysis between the Clusters

Chi-Square tests were run to look at the differences among different cluster for client and non-client households in their characteristics such as education, occupation and the marital status of the household head.

There were significant differences between client and non-client households in their education status in clusters like Prasauni and Madhuban both belonging to Kalaiya Area Office. Though not highly significant (0.098), differences seems to appear between the client and non-client groups in their educational status in Haraiya. However, there is no significant difference in clusters like Belatari and Tandri.

Such significant difference in educational status between the client and non-client households seen in Kalaiya area may be because of the remoteness of MFI centres, where access to education is possible only to a wealthier minority. While in clusters like Belatari and Tandri, due to their developed infrastructure and proximity to school/colleges, no significant differences are found between the client and non-client households. The household members in these groups are found to be relatively better educated than those of other clusters. In the case of Haraiya, access to education for both client and non-client households could be limited due to its remoteness and poor economic conditions of households of both the groups.

For the occupation of the households, no significant differences were found in clusters like Haraiya and Belatari. In Haraiya, about 70% of the households from both the groups are engaged in self-employed agriculture. In Belatari, equal proportion (about 40%) is engaged in self-employed agriculture from both the groups. Similarly, equal proportion (16%) is engaged in self-employed non-agriculture enterprise. This is because Belatari centre has many smaller markets well dispersed. Significant differences are found between client and non-client households of Tandri (at 0.019 level), Prasauni (at 0.000 level) and Madhuban (at 0.000 level)

clusters. In Tandi differences are found in casual worker and salaried worker categories. As expected, the proportion of households performing agricultural work is relatively low in Tandi compared to other clusters due to its diversity of livelihood. There are alternatives to agriculture such as enterprises, casual work and salaried work. The client household members are found to engage in the casual work category and the salaried category much more than the non-client households. In Prasauni, the difference between the groups is profound in self-employed agriculture, self-employed enterprise, casual and salaried workers. Client households are found to be engaged in self-employed agriculture and casual works, while non-clients are found to be engaged more in self-employed enterprise and salaried works. The differences in Madhuban are found in self-employed agriculture, casual and salaried works. Non-client households in Madhuban are found to be engaged in self-employed agriculture, unlike that of nearby Prasauni. It is because of the unequal distribution of land between client and non-client households in Madhuban (significant at 0.000 levels), as 58% of the client households are marginal farmers. In Madhuban client households rely more in casual works while the non-client households are engaged in salaried works.

While analyzing the domestic worker category a very interesting trend is observed. In the domestic worker category, 97% are women that are homemakers. In the cluster wise analysis, the proportion in this category becomes larger in better off clusters and clusters in traditional/conservative communities. This supports the theory that women in poorer communities/households contribute equally to the household economy (e.g. in Haraiya only 16% domestic worker). As the household becomes economically better off women tend to stay inside the house (e.g. in Tandi 32% domestic workers). Similarly, in conservative communities the "inside-outside dichotomy" seems to prevail in gender relationships (e.g. in Prasauni 32% and in Madhuban 36% domestic workers).

The cluster-wise analyses of the difference in the marital status between the groups show no significant differences both in the aggregate analysis and the cluster wise analysis.

9.3.0. Poverty Index Grouping



Figure 5. Histogram of the Standardized Poverty Index

Looking at the histogram in Figure 5 of the Standardized Poverty Index, the households are skewed disproportionately towards the left indicating that a vast majority of the households, both client and non-client, belong to the poorer category. As indicated above (in section 9.1.8 and 9.2.1), this histogram also reiterates that the MFI has reached the poorer communities.

9.4.0. Results from Poverty Index

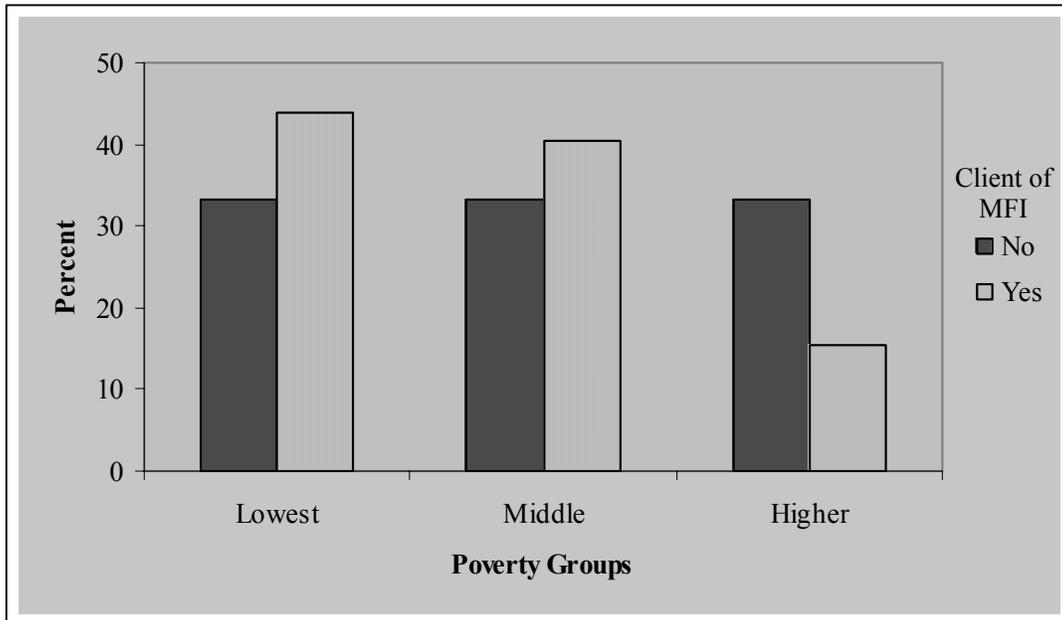


Figure 6. Percentage breakdown by poverty terciles for MFI clients and non-clients.

The above figure 6 of poverty grouping by tercile (in percentage), shows the poverty tercile where MFI clients fall in comparison to the non-clients. This clearly indicates that the poorest groups are strongly represented and that less poor households are underrepresented among NUBL's clients, which is also depicted by the cross tabulation results in Table 17 below.

Poverty Groups	Clients	Non-clients	Total
Lowest	88	100	188
Middle	81	100	181
Higher	31	100	131
Total	200	300	500

Table 17. Cross-tabulation of poverty groups

This result is not only consistent with NUBL's explicit aim to serve the poor. Especially rural poor women (mentioned in section 5.0.0), but also indicates considerable success in its targeting practices (as also evident in sections 9.1.8 and 9.2.1). Table 18 as depicted below further illustrates the poverty grouping by clusters (Branch Office).

Name of MFI Branch			Non-Client	Client	Total
Bhairahawa Haraiya	Poverty Groups	Lowest	23	19	42
		Middle	21	16	37
		Higher	16	5	21
	Total	60	40	100	
Bhairahawa Belatari	Poverty Groups	Lowest	17	9	26
		Middle	34	24	58
		Higher	9	7	16
	Total	60	40	100	
Bharatpur Tandi	Poverty Groups	Lowest	6	1	7
		Middle	12	20	32
		Higher	42	19	61
	Total	60	40	100	
Kalaiya Prasauni	Poverty Groups	Lowest	15	32	47
		Middle	16	8	24
		Higher	29	--	29
	Total	60	40	100	
Kalaiya Madhuban	Poverty Groups	Lowest	39	27	66
		Middle	17	13	30
		Higher	4	--	4
	Total	60	40	100	

Table 18. Poverty Group's Cross-Tabulation Count

Table 18 reveals the concentration of the poorest households in the Kalaiya Area Office.

10.0.0. Conclusion

Nepal's poor economic growth and drastic increment within the last decade in the proportion of population living in destitution clearly indicate the escalating depth of the poverty in the nation. The living standards of the poor in Nepal are considerably lower than the poor for many other SAARC countries and most developing countries. It is in this background the MFIs in Nepal operate.

From the analysis it can be confidently concluded that NUBL operating in the Terai region has reached to the poorer communities and within those communities it has reached to the poorer households of that region. That is to infer reaching out to the poorest of the poor in one of the poorest countries. The data also reveals that there are still a large section of poor households in the study area requiring financial services. Though NUBL's outreach is limited to the Terai region in Nepal, majority of the country's poorest live in the hilly and mountainous region that are beyond NUBL's capacity as a Grameen replicator for extending financial services.

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Figure 1: Map showing districts where NUBL operates.
 District where NUBL operate: Rupandehi, Nawalparasi, Kapilvastu, Chitwan, Makwanpur, Bara, Rautahat and Parsa.

Proposed Changes for the Future

Section B: Household Structure

Maximum Level of Education

This section of the questionnaire, maximum level of schooling is ambiguous. The variable - (1) "Less than Primary" also includes those that never attended schooling. There should be an additional question prior to this asking if the people being surveyed have had some education or not. This could then be followed by the question on maximum level of schooling. Doing so would enable to distinguish between those not educated at all and those that attended schooling level of less than primary. This would also capture the population educated through "non-formal" adult education programme. The present questionnaire combines those that were ever educated and those that have education level of less than primary, which in reality are two significantly different categories. Additionally the current questionnaire only takes into consideration the formal education process.

Clothes/Footwear Expenses for the Last 12 Months

Though, expenses on clothing and footwear are relatively good proxy of income, in Nepal due to social/cultural pressure relatively high expenditure on clothing becomes necessary even for a poorer household. Expenditure on clothing may seem relatively high in spite of low food security and low quality dwelling. People would rather forego food and nutrition necessities to clad in a fashion to meet social expectations. The climatic conditions also require expenses on winter clothing. Additionally, in households where children attend school, clothing expenses become quite high for their school uniforms.

B2: Children Members of Household (from 0 to 14 years)

In rural areas, access to education for children below 14 years of age is a good indicator of poverty status. It is especially true in the case of girl children. It is so for two reasons. Firstly, poor families are unable to pay the initial amount of money needed in public schools. Even if they pay, they prefer to pay for boys' schooling rather than girls'. Secondly, in poor households girls are retained back at home from schooling to help in household chores and agricultural tasks. Due to the assumption (in the manual) that all children under 14 years of age automatically go to school, prohibits from capturing these poverty parameters. Gender and schooling level should be added to Section B2.

Section C

Food Related Indicators

C1 to C4: One question could have avoided the three. If there was an option to train the enumerators to do the screening i.e. exclude special events and guests, the number of meals eaten can easily be recorded. This would not affect the analysis in any way. The ineffectiveness of the elaborate screening process used in the manual is portrayed by the fact that it cannot capture special events such as the month-long *ledd* festival (this Muslim festival fell during the research period and the Muslim community is quite large in Terai region where the research was conducted), which is only screened by the enumerators' intuition.

C5 Luxury Food: There are two issues related to this section. Firstly the manual expects to take into account seasonality, price fluctuations, communities taste and preference in a preference wise manner from Luxury Food 1 to Luxury Food 3. Asking the respondent yields a diverse range of luxury foods – both preference wise and variety wise. This is because even within a village there exists different ethnic tribes, religion and different economic conditions, and thus as a result a diverse range of food taste and preference habit exists. For a certain household, Luxury Food 1 might represent meat/fish, and for the other that might be the third preference and the first might be vegetable instead. The cost for meat/fish and vegetable is significantly different.

Secondly, in few instances where the poor never had any luxury food before, luxury food was not defined and therefore left blank. In many instances only one luxury food was identified. In places where luxury food was identified but not eaten, the frequency was '0'.

It is not possible to compute a common aggregate of Luxury Food 1, Luxury food 2, and Luxury Food 3 as the preferences are diverse so is their variety.

For future research it is recommended that after initial reconnaissance of all the research localities (area and ethnic tribe), luxury food items should be identified beforehand into three groups according to its cost (e.g. Luxury Food 1: Rice with Goat/Chicken, Bamboo-Shoot, Lentils and Rice; Luxury Food 2: Rice Pudding, Indian Sweets, Bread with Lentils; Luxury Food 3: Noodles, Milk, Rice with Vegetables, Eggs). The respondents irrespective of agriculture season, ethnic tribe and religion, must be asked about their consumption frequency with this range for each of the three categories. This is not made explicitly clear in the manual.

C9. Staple: Similarly respondents must be given a choice of staples for the three categories as recommended above for Luxury Food.

Section E

Assets Based Indicators

E1. Value of Land Owned: Discrepancy was found in the value of land as quoted by the respondents even within a relatively small area. Taking the opinion of a local land evaluation arbitrator could minimize this discrepancy.

Proposed Additions to Questionnaire

Amount of Loan Borrowed from the Study MFI

In this section, there should be a question immediately following the amount of loan borrowed from the study MFI asking where the loan money was invested if the money was already borrowed. For instance, in this study area lactating buffalo were most commonly purchased from the loan. This led the clients to enjoy luxury food (milk) for seven days of the week but the questionnaire used in research could not capture this facet. Without knowing about the investment of the loan, influences were difficult to make.

Indebtedness of Respondent

Indebtedness is also a powerful indicator of poverty. Household indebtedness (other than MFI loan) may be included in household data.

Ethnicity and Religion

The questionnaire does not take note of ethnicity and religious diversity in Nepal. In terms of ethnicity, Nepal is diverse. Education, gender issues, food habits, occupation and control over productive resources, e.g. land, are directly correlated with religion and ethnic background.

Feedback on Data Analysis

In the description of the analysis process, there are a couple of ambiguities as described below.

Socio demographic indicators are crude better to refine and be more specific.

Correction for Using the SPSS Aggregate Data Procedure

For computing the aggregate file mentioned in Table 6.4 of the manual (Henry, et.al., 2000), in the case of 'select cases' and without 'select cases'; individual aggregate files should be created and merged. Otherwise the last command will dictate the file, e.g. FHH will only give 25 cases with female-headed households for all aggregate variables.

Education and Occupation

For the computation of Education and Occupation of various categories, separate individual aggregate files should be created individually and the SYSMIS should be recorded as '0'. This could be added in the manual.

Dependency Ratio

Old age (59 years of age and over) is not included in the dependency ratio mentioned in the manual. The manual (Henry, et.al., 2000) makes the assumption that the elderly (59 years of age and over) are economically active, which they are not. It also does not match with the national definition of dependency ratio.

Kaiser-Meyer-Olkin (KMO) Value

The manual needs to mention how to choose the various outputs when the KMO value is relatively declined, but the percentage of variance explained by the component is increased.

General Comments for Improving the Manual

Family and Household

The manual frequently uses the terms family while referring to household. The latter term should be used.

Creating File (F2adult.sav)

In the file formation (F2adult.sav) section of the manual (Henry, et.al., 2000), it recommends clients and non-clients to be coded 1 and 2 respectively, else where it is coded as 0 and 1 for all files. During the analysis, this discrepancy was recoded as 0 and 1.

Proposed Additional Indicators for the Manual Health Indicator

Access to health care services could have been used as an additional indicator for assessing poverty level. The questionnaire could have asked whether the sample population used informal or formal health care services if used at all.

Out-Country and In-Country Remittance

Remittance plays an important role in assessing the poverty levels. The Section B, Status of the head of HH column of the questionnaire, only asks' if the household head is contributing to the household economy by mostly living away. This should be asked to other adult household members as well, and the amount of remittance fund a household receives annually could also be asked.

Agriculture Productivity

Taking the agriculture productivity by asking the area of land owned and the yield could be a good proxy for assessing poverty levels. Agriculture yield encompasses a wide range of factors such as land type (at least in Nepal, size of land hardly matters, there are several

categories of agricultural land on the basis of fertility and gradient), technology adopted, irrigated facilities and the propensity to save.

Bivariate Linear Correlation Coefficient

Correlations		Per capita expenditure on Food and Clothing
Per capita expenditure on food and clothing	Pearson Correlation	1
	Sig. (2-tailed)	
Number of days luxury food 2 served	Pearson Correlation .119 (**)	0.008
	Sig. (2-tailed)	
Number of days luxury food 3 served	N	500
	Pearson Correlation .105 (**)	0.018
Number of days inferior food served	Sig. (2-tailed)	
	N	500
Frequency of purchasing staple 1	Pearson Correlation .122 (**)	0.006
	Sig. (2-tailed)	
Frequency of purchasing staple 2	N	500
	Pearson Correlation .098 (**)	0.028
Frequency of purchasing staple 3	Sig. (2-tailed)	
	N	500
Number of weeks stock of local staples will last	Pearson Correlation .251 (**)	0
	Sig. (2-tailed)	
Amount of extra monthly income spent on food	N	500
	Pearson Correlation .206 (**)	0
number of rooms available	Sig. (2-tailed)	
	N	500
	Pearson Correlation .110 (**)	0.014
	Sig. (2-tailed)	
	N	500
	Pearson Correlation .159 (**)	0
	Sig. (2-tailed)	
	N	500
	Pearson Correlation .152 (**)	0.001
	Sig. (2-tailed)	
	N	500

	Pearson Correlation .290 (**) Sig. (2-tailed)	0
Type of roofing material used	N	500
	Pearson Correlation .329 (**) Sig. (2-tailed)	0
Type of exterior walls	N	500
	Pearson Correlation .338 (**) Sig. (2-tailed)	0
Type of floor	N	500
	Pearson Correlation .403 (**) Sig. (2-tailed)	0
Structural condition of house	N	500
	Pearson Correlation .269 (**) Sig. (2-tailed)	0
Household's electricity supply	N	500
	Pearson Correlation .290 (**) Sig. (2-tailed)	0
Type of cooking food used	N	500
	Pearson Correlation .390 (**) Sig. (2-tailed)	0
Quality of drinking water	N	500
	Pearson Correlation .115 (**) Sig. (2-tailed)	0.01
Quality of latrine	N	500
	Pearson Correlation .413 (**) Sig. (2-tailed)	0
Total land owned by the household	N	500
	Pearson Correlation .090 (**) Sig. (2-tailed)	0.044
Total value of household assets	N	500
	Pearson Correlation .217 (**) Sig. (2-tailed)	0
Total number of meals eaten in past 2 days	N	500
	Pearson Correlation .168 (**) Sig. (2-tailed)	0
Number of adults who write	N	499
	Pearson Correlation .195 (**) Sig. (2-tailed)	0
Number of adults who are Self-employed in non-farm enterprise	N	500
	Pearson Correlation .197 (**) Sig. (2-tailed)	0

Number of adult students	N Pearson Correlation .113 (**) Sig. (2-tailed)	500 0.011
Number of adult casual workers	N Pearson Correlation .111 (**) Sig. (2-tailed)	500 0.013
Number of adults salaried worker	N Pearson Correlation .156 (**) Sig. (2-tailed)	500 0
Number of children per household	N Pearson Correlation .199 (**) Sig. (2-tailed)	500 0
Average age of children	N Pearson Correlation Sig. (2-tailed)	500 0.074 0.1
Total amount spent on clothes/footwear expenses	N Pearson Correlation .371 (**) Sig. (2-tailed)	500 0
Clothing and footwear expenditure of adults	N Pearson Correlation .684 (**) Sig. (2-tailed)	500 0
Percent of household adults who can write	N Pearson Correlation .195 (**) Sig. (2-tailed)	500 0
Percent of household adults who completed some primary	N Pearson Correlation .365 (**) Sig. (2-tailed)	500 0
Percent of household adults who completed secondary	N Pearson Correlation .396 (**) Sig. (2-tailed)	500 0
Percent of household adults who attended college or university	N Pearson Correlation .283 (**) Sig. (2-tailed)	500 0
Percent of household adults who are self employed in agriculture	N Pearson Correlation .119 (**) Sig. (2-tailed)	500 0.008
Percent of household adults		

who are self-employed in non-farm enterprise	N	500
	Pearson Correlation .186 (**)	
	Sig. (2-tailed)	0
Percent of household adults who are students	N	500
	Pearson Correlation .095 (**)	
	Sig. (2-tailed)	0.033
Percent of household adults who are casual workers	N	500
	Pearson Correlation .111 (**)	
	Sig. (2-tailed)	0.013
Percent of household adults who are salaried workers	N	500
	Pearson Correlation .160 (**)	
	Sig. (2-tailed)	0
Child dependency ratio	N	500
	Pearson Correlation .244 (**)	
	Sig. (2-tailed)	0
Rooms per person	N	500
	Pearson Correlation .331 (**)	
	Sig. (2-tailed)	0
VALUE 10	N	500
	Pearson Correlation .192 (**)	
	Sig. (2-tailed)	0
Per person value of total assets	N	500
	Pearson Correlation .397 (**)	
	Sig. (2-tailed)	0
VALUEAEL	N	500
	Pearson Correlation .225 (**)	
	Sig. (2-tailed)	0
Total value of landholdings	N	500
	Pearson Correlation .218 (**)	
	Sig. (2-tailed)	0
Relative wealth assessment of MFI clients	N	500
	Pearson Correlation .381 (**)	
	Sig. (2-tailed)	0
Resale value of Radio	N	500
	Pearson Correlation .165 (**)	
	Sig. (2-tailed)	0
Resale value of Television	N	500
	Pearson Correlation .178 (**)	
	Sig. (2-tailed)	0

Correlation is significant at the 0.01 level (2-tailed).
Correlation is significant at the 0.05 level (2-tailed).

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.872
Bartlett's Test of Sphericity	Approx. Chi-Square	2534.306
	df	55
	Sig.	.000

Communalities

	Initial	Extraction
Per capita expenditure on food and clothing	1.000	.362
Type of roofing materials used	1.000	.651
Type of exterior walls	1.000	.694
Type of floor	1.000	.700
Type of cooking food used	1.000	.483
Quality of latrine	1.000	.566
Percent of household adults who can write	1.000	.736
Percent of household adults who completed some primary	1.000	.844
Percent of household adults who completed attended secondary	1.000	.709
Rooms per person	1.000	.383
Per person value of total assets	1.000	.378

Extraction Method: Principal Component Analysis

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Square Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.941	44.920	44.920	4.914	44.920	44.920
2	1.563	14.211	59.130	1.563	14.211	59.130
3	.858	7.802	66.933			
4	.725	6.595	73.528			
5	.666	6.055	79.583			
6	.611	5.555	85.137			
7	.435	3.951	89.088			
8	.428	3.894	92.982			
9	.319	2.897	95.879			
10	.239	2.172	98.051			
11	.214	1.949	100.000			

Extraction Method: Principal Component Analysis

Component Matrix

	Component	
	1	2
Per capita expenditures on food and clothing	.602	1.327E-02
Type of roofing material used	.722	-.361
Type of exterior walls	.762	-.337
Type of floor	.782	-.297
Type of cooking food used	.693	-5.12E-02
Quality of latrine	.749	-6.70E-02
Percent of household adults who can write	.478	.712
Percent of household adults who completed some primary	.661	.638
Percent of household adults who completed attended secondary	.709	.453
Rooms per person	.561	-.262
Per person value of total assets	.585	-.188

Extraction Method: Principal Component Analysis
a. 2 components extracted.

Description of Study Areas

Haraiya Area

- Population in the north mostly composed of migrants from the hills and settled in cleared forest areas.
- Subsistence economy predominant.
- Poor infrastructure - Few schools, poor road network, mainly dirt tracks and lack of irrigation facilities.
- Limited marketing towns available for trade, far off from urban centers like Bhairahawa and Butwal.
- No industries in the close vicinity for off-farm employment opportunities.
- Infertile soil, subsistence agriculture using primitive technology.
- Poor health and sanitation awareness with high fertility rate.

Belatari Area

- Both commercial and subsistence economy found in the area.
- Excellent infrastructure- well coordinated markets dispersed across the region, good network of roads, schools and health posts in abundance.
- Canal irrigation used in the area as a year round source of irrigation. Dykes built along Narayani river and its canal to check flooding.
- 4 to 5 sugar cane processing plants and 2 sugar mills in the region. Numerous large scale sugar plantation as well.
- The local markets towns, the industries and close proximity to Parasi and Bhairahawa have increased off-farm employment opportunities. Also well linked with Indian market through the Triveni post.
- Fertile soil- black alluvial with silt deposits in some areas.

Tandi Area

- Towards the North of the highway, the population consists mainly of migrants from the hills settled north of the highway and those of the indigenous Tharu tribe towards the south of the highway. The settlements in the North are heterogeneous while in the south they are more homogenous from the same tribe- the Tharu tribe.
- Infrastructure- the east-west highway runs through the area. So highway towns are well developed.
- Schools and good health care facilities are also readily available. Electricity connection is available in most areas.
- The area lies adjacent to one of the world's renowned national park- The Royal Chitwan National Park. This has opened tremendous employment prospectus through the tourist trade.
- Close proximity to industrial town of Narayangadh has further given employment to the members of the households dwelling in the study area. The people in this region are relatively wealthier. Some of the main off-farm employment opportunities are-tourism industry, manufacturing and service industries, employment in the national park as forest guards, etc.
- Agriculture is carried out in the fertile valley with alluvial soil. This area was forested (subtropical forest) with sparse Tharu population prior to the Malaria Eradication Programme of the mid 60's.
- The land in this area is very expensive. Numerous commercial vegetable farms exist in all sizes as the market is well developed and linked directly to the capital.

Parsauni Area

- Population consisting mainly of the Tharu tribe.
- Infrastructure is well developed- roads, schools, health posts, towns, etc.
- Cycling distance from the urban capital of Birgunj and close proximity to other industrial towns such as Jeetpur, Parwanipur, Simra, etc. have not only opened markets for agriculture products but also provided employment opportunities for the rural population.
- Opened border towards the south have further facilitated undocumented trade with India giving the locals living in border areas additional opportunities to generate income.
- This area has been primarily used for agricultural production land for many decades as the plain is fertile mainly with alluvial soil. Large farmers and commercial vegetable farmers are found here.
- High fertility rate.

Madhuban Area

- Population consists mainly of the Tharu tribe and the Terai-Dalit community.
- Infrastructure is relatively less developed than in Parsauni.
- This area is further away from urban centers thereby limiting access to market and off-farm employment opportunities.
- Soil in this area is fertile; many areas towards the north are settlement in cleared forests. Commercial vegetable farms are seen here though much less than in Parsauni.
- High fertility rate.



Background of the Centre for Micro-Finance

The purpose of the Centre for Micro-Finance (CMF) is to promote awareness of, and commitment to Micro-finance best practices in Nepal within the community of MF practitioners, promoters, policy-makers and funders. CMF was established in January 1998 in response to a growing demand within Nepal for a national focal point for the rapidly expanding MF sector. Set up initially as a project of an international organization CMF is now registered as a local company with a not-for-profit motive in July 2000. CMF is now a local organization aimed at being the focal point for the Micro-Finance sector in Nepal. It offers a rich mix of programs and services designed to both emerging needs of individual micro-finance institutions as well as consultation to the sector as a whole. CMF has also extended its services in other countries in the world.

CMF's services are designed to address the needs of the full range of MF models found in Nepal. Among these are Grameen Replicators; bank/self-help group linkage programs, community-based savings and credit organizations (SCOs), village banking and other NGO models. Specific services of CMF include:

- Technical Assistance
- MF training Programs
- Survey Tours and Internships
- Networking and Communication
- Research and Documentation
- Policy Feedback and Advocacy
- Resource Center

CMF also has specific projects focused on MF in the region. Please refer to our web page for detail information. CMF Cooperates and Collaborates with a number of National, Regional and International Agencies and Networks of Micro-Finance.

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QUESTIONNAIRE
Assessing Living Standards of Households

Name of Enumerator: _____

Serial No: _____

A Household Identification

(mm/dd/yy): ____/____/____

Name:

Branch Office Name:

Name:

Name:

Household code:

Household chosen as: (1) Client of MFI, or (2) Non-client of MFI?

Household from replacement list: (0) No (1) Yes

Where the original household was:
(1) Not found (2) Unwilling to answer (3) Clients Status was wrongly listed.

Name of Respondent:

Name of the household head:

Income of the household head:

Types of the household:

Interviewer code: A12. Date checked by supervisor (mm/dd/yy):
____/____/____

Supervisor Name: _____

ID Code	Name	Status of the head of the HH'	Relation to head of HH'	Sex	Age	Max. Level of Schooling	Can write	Occupation current year			
1	(HH head)										
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											

(1) Single, (2) married with the spouse permanently present in the household, (3) married with the spouse migrant, (4) widow or widower, (5) divorced or separated (6) living mostly away from home but contributing regularly to household.

(1) head of the household, (2) spouse, (3) son or daughter, (4) father or mother, (5) grandchild, (6) grandparents, (7) other relative, (8) other non-relative

(1) male, (2) female

(1) less than primary, (2) some primary, (3) completed primary 5, (4) attended technical school, (5) attended secondary, (6) completed secondary, (7) attended college or University

(0) No, (1) yes

(1) self-employed in agriculture, (2) self-employed in non-farm enterprise (3) student, (4) casual worker, (5) salaried worker, (6) domestic worker, (7) unemployed/looking for a job, (8) unwilling to work or retired, (9) not able to work/handicapped.

B2 Children members of household from 0 to 14 years.

ID Code	Name	Age	Clothes, footwear expenses for past 12 months in local currency.¹
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			

¹Clothes and footwear expenses are asked for once those for adults have been recorded and in the presence of the spouse of the head of the household. In case of ready-to-wear clothing and footwear items, include full price. In other cases, include cost of fabric, cloth as well as tailoring and stitching charges.

Notes: -

C. Food Related Indicators

(Head of the household and his or her spouse should be present when answering for this section)

How many special events occur in the last two days (for example, family event, guests invited)?

(0) No (1) Yes []

How many meals were served to the household members during the last 2 days? []

How many meals were served to the household members during the 2 days preceding the event? []

Were there any special events in the last seven days (for example: family event, guests invited)? (0) No (1) Yes []

(The "last seven days" in C5 and C6 should refer to the week preceding the special event.)

In the last seven days, for how many days were the following foods served in a main meal eaten by the family?

Luxury Food	Number of Days Served
Luxury Food 1	
Luxury Food 2	
Luxury Food 3	

In the last seven days for how many days did a main meal consist of an inferior food? []

In the last 30 days, for how many days did your household not have enough to eat everyday?

(0) No (1) Yes [] []

In the last 12 months, for how many months did your household have at least one day without enough food? (0) No (1) Yes [] []

How often do you purchase the following?

Staple	Frequency Purchased
Staple 1	
Staple 2	
Staple 3	

(2) Twice a week, (3) Weekly, (4) Fortnightly, (5) Monthly, (6) More than a month

For how many weeks do you have a stock of *local staples* in your house? []

If your household earnings increased by 7/8 hundred rupee, how much of that would you spend on additional food? [] [] []

(Does not include alcohol and tobacco)

D. Dwelling- Related Indicators

(Should be collected about the dwelling in which the family currently resides.)

How is the ownership status of dwelling? (1) Built on squatter land, (2) Owned, (3) Given by relative or others, (4) Provided by government, (5) Rented []

How many rooms does the dwelling have? (Include detached rooms in same compounds if some had.) [] []

What type of roofing material is used in main house? (1) Branches and Twigs or Grass (2) Tarpaulin, Plastic (3) Brick Tiles (4) Stone or Slate (5) Iron Sheets (6) Concrete []

What type of exterior walls does dwelling have? []

(1) Tarpaulin, plastic sheets, or branches and twigs (2) Mud walls (3) Iron Sheets (4) Timber (5) Brick or stone with mud (6) Brick or stone with cement plaster

What type of flooring does the dwelling have? []

(1) Dirt/Mud (2) Wood (3) Cement (4) Cement with additional covering

How is the observed structural condition of main dwelling? []

(1) Seriously dilapidated (2) Need for major repair (3) Sound Structure

How is the electric supply? []

(1) No connection (2) Shared Connection (3) Own Connection

What type of cooking fuel source primarily is used? []

(1) Dung (2) Collected wood/Twigs/Crop Residue (3) Purchased wood or sawdust (4) Charcoal (5) Kerosene (6) Gas/Bio-gas (7) Electricity

What is the source of drinking water? [] []

(1) Rainwater, dam, pond, lake or river (2) spring (3) Public well (4) Public well--sealed with pump (5) Well in residence yard (6) Piped public water (7) Bore hole in house

What type of toilet facility is available? []

(1) Bush, field or no facility (2) Shared pit toilet (3) Own pit toilet (4) Shared, ventilated, improved pit latrine (5) Improved latrine (6) Flush toilet, own or shared

Asset-Based Indicators

Type of Land Owned: Agricultural_____ Non-
 agricultural_____

Value of Land Owned: Agricultural_____ Non-
 agricultural_____

Land value of selected assets owned by household. (*Ask household to identify any assets purchased and eliminate these from the table below.*)

Assets type and code	Number Owned	Resale value at current market price
Male Buffalo		
Female Buffalo		
Sheep, Goats and Pigs		
Poultry/ Rabbits/Fish Ponds		
Horses/Donkeys		
Transportation		
Trucks		
Buses		
Other Vehicles		
Electronics		
Television/Radios		
Cassette Recorders		
Calculators		

Gas Cookers		
Knitting Machines		
Peddle Pumps		

How was your overall assessment of the general wealth levels of MFI clients?

(1) Poor (2) Average (3) Rich []

Additional Questions

What type of farming system do you practice in general?

- a) Subsistence
- b) Commercial

State all the major crops grown/livestock raised over a year listing according to the size/value of the plantation/crops/livestock.

Crop 1 _____	Livestock 1
Crop 2 _____	Livestock 2
Crop 3 _____	Livestock 3
Crop 4	Livestock 4.....

Do you have irrigation facility? Yes _____ No _____

If yes, what type?

- a) Seasonal
- b) Year round