Urban Poverty: A Study of Income Patterns and Processes of the Poor Families in Kathmandu

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ABSTRACT

The poor are highly migrate from the surrounding districts of Kathmandu valley and largely dependent on direct cash income from the informal activities. Casual wage labor, petty trade and private and professional services are common livelihood activities. However, availability of income generation activities remains largely irregular and depends on the season, gender, age of person, ethnic and education background. Foreign employment, skill-based activities and petty trade fetch the highest return. It is also found that the level of family income is determined not only by ethnic background; but there are other factors, for example family structure, working hours, nature of work and seasonality. There is a significant impact of education and working hour in household income. Poor are assets of urban economy. We could not neglect them. They are hard working and decent people. But poor policy and attitude makes them highly vulnerable in the urban environment. However, all people living in the squatter or slum are not only poor but some of them are economically well-off, though they have poor accessed of modern banking and financial institutions, in many cases, banking policies discouraged them for providing credit facilities.

Key Words: Poverty Pockets, Communities, Urban, Livelihood

INTRODUCTION

In Nepal, urban poverty is increasing at high pace. During a decade long political turmoil in the country, many poor communities have chosen Kathmandu as a best destination for securing their lives and properties. The lack of opportunities and increasing psycho-political threat in the rural areas are responsible for such a situation.

Urban poor are the source of cheap labor force as well as service provider in the informal sector through the activities like, vending, shoe making, driving and construction work. Unfortunately, they are largely ignored in the development process and labeled as illegal and unauthorized settlers. The poor are marginal communities who migrate to city and live in squatter settlements on the periphery of cities; they include high proportion of illiterates and unskilled laborers. They are socially, economically and politically marginal (Harpha, Lusty and Vangham 1988); and are spatially separated from the nearby neighborhood. A general typology of low-income settlements developed in and around the city is presented in Table 1.

Table 1: General Typology of Poor and Marginal Communities

Types	Land Acquisition Status	Physical Characteristics
Squatter Settlements	Invasion of public or private land	Middle and periphery where security of tenure then upgrading is likely.
Squatters / Shanty Towns	Dominant of squatters (usually renters)	Mostly downtown and around city centre, small plots with few public amenities and little prospect of their provision. Likelihood of self help improvement.
Street Sleepers / Dwellers	May have regular sleeping place, Invasion of public road/land	Downtown/inner city. Shelter removed daily often associated with workplace.
Slum	Converted large houses of permanent or semi-permanent structures, usually rentals.	Mostly downtown. An increasing portion of new rental accommodation in older irregular settlements. Single room per family and share the same.
Vendors and Hawkers	Makeshift/Mobile	Mostly dominated in the central of the city.

In Nepal, squatter settlements, slums, street dwellers, vendors, marginal farm families, and scavenging groups are categorized as poor urban communities. Such communities are concentrated either on the bank of rivers or in the open space near the historical and religious monuments. Hawkers and vendors are concentrated in the city center, religious places and tourist destination sites. Hawkers and vendors are another form of urban poverty in the city, and they are engaged in selling either agricultural products or cloth items or preparing fast food. In a city like Kathmandu, where the price of land is skyrocketing purchasing a parcel of land is beyond the capacity of low income group. In this background, the main objective of this study is to examine an economic status of the poor communities and their access of financial institutions in Kathmandu.

METHODS AND APPROACHES

This study, therefore, is based on the primary and secondary data and information collected by using qualitative and quantitative tools and methods. Face to face interactions with local people and resource persons, focus group discussions, key informant interview and informal conservations were conducted to gather data and information.

In this study, a multi-stage sampling framework is widely used. According to this framework, the study area is divided into different zones, for example, central, middle and periphery. In this study, apart from the previous methodologies adopted by several researchers, functional and urban expansion issues are also taken into consideration for zoning purpose. Therefore, finally, the following procedure has been applied for the selection of survey households and interview:

Stage I; Identification of poverty pockets, household and population: Altogether 34 poverty pockets are identified in the metropolitan city. Altogether 2298 household and more than 11,000 population were recorded in the poverty pockets in the metropolitan city.

Stage II; Zoning of poverty pockets: Three zones e.g. central, middle and periphery[1] are defined for the study purpose based on the previous literature, observation (functional and urban expansion of the city), land use map. There are

10 poverty pockets, which belong to the central zone, 16 in middle and 8 poverty pockets are under periphery zone in Kathmandu (figure 1).

Figure 1: Poverty Pockets in Kathmandu Metropolitan City
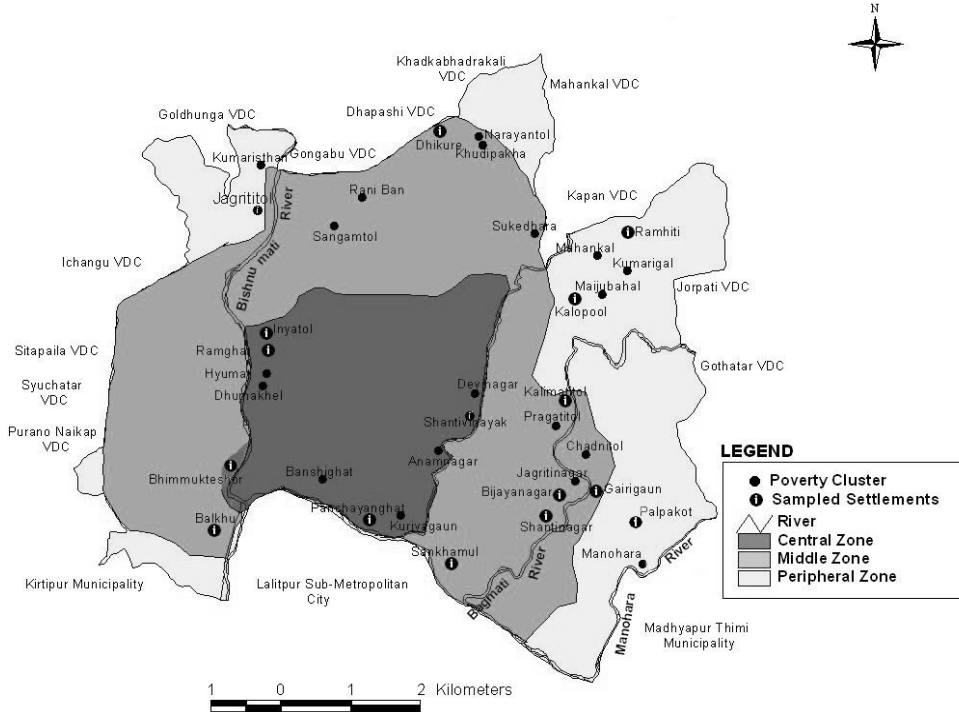
Stage III; Selection of the poverty pockets and determine the sample size: 50% (i.e. 17) out of the 34 poverty pockets from the three stratums i.e. central, middle and periphery are selected by using random number table. Due to the limited budget and time framework, details of all household in the selected poverty pockets in Kathmandu was not possible; therefore, out of the total households in the sampled poverty pockets, only 20% are chosen from each stratum for the study that is 314 households.

Sampling method and sampling interval: Simple random sampling without replacement is used to identify the household for the interview from the sampled poverty pockets in Kathmandu. Then, systematic sampling method is applied to identify household for data collection purpose. In the systematic sampling where only the first case is randomly selected, and the randomly selected first case is called 'random start number', thereafter, every k_{th} case is selected. 'Sampling interval' is calculated from the mass (universe) in relation to the required number of

sample from the universe. Due to the large universe and sporadic location of poverty pockets, probability systematic sampling technique[1] is used.

Apart from the household survey, Focus Group Discussion (FGD), Key Informant Interview (KII), Informal conservations, Observation and some case studies have also were also highly used to gather data and information.

Statistical and non-statistical tools are widely used to analyze data and information. Statistical tools, for example Chi-square test and multiple regressions are used; and income inequality is measured by using Gini-coefficient.

Chi-square (obtained) $(\chi^2) = \Sigma \dfrac{(f_o - f_e)^2}{f_e}$ (Healey 1999)

Where,
f_o = observed frequencies.
f_e = expected frequencies.

Multiple Regressions are calculated by using SPSS. Following formula can be given to explain multiple regressions:

$Y = a + b_1X_1 + b_2X_2$ (Healey 1999; Bowerman and O'Connell 1990; Pal 1982)

Where,
Y = dependent variables.
a = point of intercept with the Y-axis.
X_1 and X_2 = two independent variables being considered.
b_1 = the rate of change in Y for each unit change in X_1, with X_2 held constant. It is called a regression coefficient.
b_2 = the rate of change in Y for each unit change in X_2, with X_1 held constant. It is also called a regression coefficient.

Gini-coefficient is calculated as:

$$Gc = \frac{1}{(100)^2} \left[\sum_{i=0}^{i=n} X_iY_{i+1} - \sum_{i=0}^{i=n} X_{i+1}Y_i \right]$$

Who are Urban Poor Communities in Kathmandu?
Nepal Living Standard Survey (NLSS) 2003/04 defined Rs. 11,056.8 as the poverty level for urban areas of Kathmandu valley which consisted of 60.8% for food and 39.2% for non-food items. Lumanti (2005) applied cost of basic needs metho[2] for

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[1]This technique is useful when sampling unit vary in size because it ensures that household in larger units have the same probability of getting into the sample as those in smaller ones and vice versa. Using this technique also helps in making fieldwork because a pre-determined number of respondents are interviewed in each selected unit (Jacobsen 2008).

the Kathmandu Metropolitan City that was also adopted by NLSS 1995-96 and NLSS 2003-04. Based on this method, poverty level has been defined as below (Table 2).

Table 2: Per-capita Income Ranges and Poverty Status

| Income Ranges (Rs.)	Status
Less than 12,000	Poor
12,000- 25,000	Lower Medium
25001-60,000	Medium
Above 60,000	Upper Medium and Rich

Accordingly, persons having income less than Rs. 12,000/person/annum categorized as poor, and persons having Rs. 12,001–25,000 /person/annum have been categorized into lower medium people. And income more than Rs 60,000 represented as an upper medium and rich class (Lumanti 2005, 12).

However, actual data of the urban poor communities in Kathmandu metropolitan city has not been published yet. Even, the metropolitan city does not have an accurate figure of urban poor. Who actually are poor and how many of them are living in the metropolitan city? What are the dimensions of urban poor and what are they doing for their livelihood in the metropolitan city? These are some of the major issues debated in the contemporary urban literature in Nepal. There is no any accepted definition of urban poverty in Nepal. In many cases, social researchers have recognized that poor urban communities are those who are living in the slums and squatter settlements (permanent, semi-permanent or temporary or legal or illegal) either in the open spaces, religious sites or on the bank of the rivers. Lumanti (2005) defined 'poor' as those people who have annual income less than Rs. 12,000. At this level, 13% people and 8% households in the metropolitan city were found below the poverty level.

Although, squatter settlements, slums, street dwellers, vendors, marginal farm families, and scavenging groups are categorized as poor urban communities. Such communities are concentrated either on the bank of rivers or in the open space near the historical and religious monuments.

Origin and Migration

Survey revealed that about 64% households of urban poor in Kathmandu are migrants, mostly from outside the valley. Three scenarios of migration have been identified in this study; first, migration from the central hills and mountain region consists of more than 60% of total migration; second, migration from eastern Terai is about 14%; and third, eastern hills and mountain represents almost 15% of the total migrants in the poverty pockets (Figure 2).

Figure 2: Origin of Poor Communities in Kathmandu
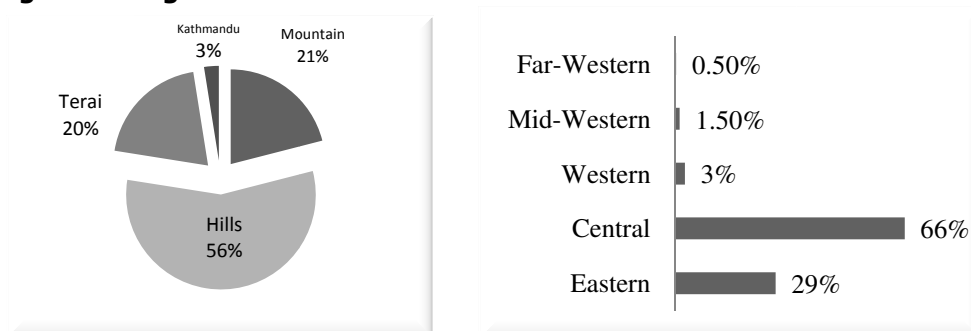
Outnumber of immigration reported during the susceptibility of the conflict. A study of Pradhan (2008, 36) shows that 62% poor urban households are migrants, of which 33% has been reported recent migrant (i.e. for 5 years back). That was the period in which the people's war (as frequently announced by Maoist) was on the climax. Most of them are migrants from hills (66%) and central (71%) region. Out of the total, nearly 3% migrated due to the conflict and some are refugees (Pradhan 2008, 37). Contrary to this figure, Shrestha (2008) has indicated that conflict (26%) is one of the major reasons of immigration in Kathmandu who lived either in temporary/semi-permanent or permanent slums/squatter settlements. Such difference in estimation is due to the methodological variation adopted by them. It also depends on the respondent bias and sample design of settlements and households. Another study of Dawadi (2008) exhibits that 75% of commercial vendors in Kathmandu city are migrants of which 57% migrated during the last 10 years, which was the period of political turmoil, insurgency and insecurity in the country. Raut (2008) has also indicated that conflict is one of the core causes of immigration in Kathmandu. Timalsina (2007) has found that the increase in number of street vendors in the urban areas particularly in Kathmandu in recent years due to rural conflict and displacement. This study also shows that street vending is an opportunity to rural poor for making a living in the urban areas.

Growth and Distribution of Poverty Pockets in Kathmandu
In the KMC, about 11,862 people are living in the 61 different squatter settlements and slum areas in 2000 whilst the squatter population in 1988 was only 3,665 in 24 different settlements. The latest survey conducted by Lumanti in 2008, shows that there are 45 poor pockets and 13,243 people on the banks of Bagmati River and its tributaries in Kathmandu (Table 3).

Table 3: Growth of squatter settlements in Kathmandu

Years	# of settlements	Number of HHs	Total population
1985	17	-	2,134
1988	24	348	3,665
1992	33	1,271	6,355
1996	47	1,783	8,927
1998	49	2,021	10,323
2000	61	2,031	11,862
2008	45	2,844	13,243

Sources: KMC/World Bank 2001, Lumanti 2008

Most of the poverty pockets are emerging on the banks of Bagmati River and its tributaries. These are highly vulnerable in terms of river pollution and flood, poor sewage and drainage, health and sanitation, congested and narrow lanes. Some poverty pockets belong to an indigenous settlement e.g. Newar communities, in the Vishnumati river from Sobha Bhagawati to Teku Dovan. Those group themselves would like to be categorized as '*Swabasl* instead of Slum or Squatter. Study shows that more 81% squatter families in Kathmandu are living on the banks of Bagmati and its tributaries (Lumanti 2008, 14). Balkhu and Panchayanghat (Thapathali) are relatively new poverty pockets developed after 2005. Temporary with plastic roof having one or two rooms and common toilet and open toilet practices are common characteristics of the newly growing poverty pockets. But others have, in most cases semi-permanent structure of housing and relatively well furnished houses compared to newly growing poverty areas. Distribution of poverty pockets in Kathmandu Metropolitan City is showing in Figure 1.

RESULTS AND DISCUSSION
Livelihood and Urban Poor
The poor urban community has been involved in the diversified livelihood activities, and most of them (90%) are involved in informal sector (Pradhan 2008, 38). Self-employment, daily wage unskilled work, domestic help, public transport work e.g. driving and fare collection, transportation of building materials e.g. sand, concrete and cement, waste collection, pretty trade, running hotels, small restaurants and private tuitions are supporting livelihood activities of the poor urban communities.

Urban poor are very close to the radical political parties. In the case of Kathmandu, many of them are associated with left-wing political parties; hoping that the radical government would provide land, shelter, employment and urban services to them. This is one of core reasons for increasing inflows of rural poor in urban area including Kathmandu, especially after the democratic movement in 1989/90.

Table 4: Percentage of Poor Household Involved in Political Activities

Nature of Participation	Percentage
Political Rallies ad Gatherings	81.69
Information and Knowledge Dissemination	11.27
Decision Making and Implementation	5.63
Policy Formulation	1.41
Total	100.00 (N=71)

The table 4 shows the nature of involvement of the poor communities in the current politics. Those who are not interested in politics have cited three reasons; firstly, they don't know about party politics (54%); therefore, they usually are not interested in participating in the parties' activities, rallies and gatherings. Secondly, they know about the ongoing politics in the country, but they largely ignore it because they first need to secure their daily livelihood (36%); and thirdly, they also know about the politics but could not appear in the politics due to their family restrictions (10%).

Financial Asset and Access

Financial assets are a means of subsistence in urban area which is highly dependent on cash incomes, either directly through wage labor or indirectly through the production and sale of goods and services or loans/indebtedness. Generally, the urban poor have better access to income through the employment and market opportunities that cities offer as compared to rural areas. Nonetheless, access to employment in the informal sector in Kathmandu is strongly related to caste or ethnicity, as different communities have established economic niches in areas of employment, production or markets. Access to credit, either from the formal market, for example, banks and financial institutions; or/and informal credit sources' e.g. cooperatives and saving and credit groups, are another asset for urban poor. However, due to the weak social, economic and political networking, formal banks and financial institutions usually do not provide credit/loan to the poor. As a result the poor have access credit/loans from the informal sources, and each poverty pocket has established its own saving credit groups.

Community-managed micro finance is an alternative means to build assets and to access loans. Saving and credit groups provide access to support networks. Locally established saving and credit groups/cooperatives have acquired formal legal status and are delivering credit services to the members. There are 20 cooperatives, 463 groups and 11,032 members in poverty pockets in the metropolitan city; and handle fixed, saving and current account of the member. They manage fund of about Rs 358, 000, 00 and disburse loan to their members (Lumanti Data Sheet 2009; KII, February 2010). The groups manage the funds and grant small loans of Rs 500 to Rs 300,000 to individual members. These saving and credit groups have been joined their hands to set up cooperatives, a more secure formal financial institution. Loans are used for trade/business (37%), land purchase (20%), housing (14%), payment of loan (12%) and foreign employment (7%); and the interest rates for all cases range from 12-16% annually (Gyanjyoti Mahila Utthan Saving and Credit Cooperative Limited, February 2010). However, FGD with the beneficiaries indicated that loans were far more accessible to better-off and better-educated groups. Nonetheless, financial assets are one of the most important aspects of poor for livelihood but it is also the most problematic feature which obstructs them to get credit.

Study shows that only 42% households have access to [local] social and community organizations. Nearly 40% family members are associated with more than one organization. Among others, local savings and credit groups are more prominent institutions that increase social ties and relations with other members of the communities. Out of the total family that have access to social and community based organizations, nearly 61% of them are associated with savings and credit groups/cooperatives. More than 70% families living in the peripheral zone of KMC, while it is only 43% in the core zone associated with saving and credit.

Livelihood Activities, Household Income and Expenditure
The growth of informal wage helps in reducing the incidence of urban poverty (Kar and Marjit 2009, 636), even though they have no fixed place for work, no fixed working hours, no regular wage and security of job. In this sense, they are economically vulnerable group in the urban society. Age, level of education and gender are key determinants affecting the level of household income among the urban poor. There are, for instance in Dhaka (Bangladesh), less possibilities to be poor in those household in which the proportion of male adolescence aged 9-14 is higher, similarly educated head of households have less possibility of being poor, higher the share of adults, lower the possibility of being poor (World Bank 2007,15).

Together with above mentioned factors, gender is also a determinant of household income particularly in Kathmandu. Higher the proportion of female in the family, higher the chance of being poor. This is obvious that poor women are physically weak due to the high fertility/reproductive rate and are involved mostly in the home-based and casual work in construction sectors and petty business near the poverty cluster (FGD, February 2010). In this perspective, it is true that, family socio-economic status is based on family income, parental education level, parental occupation and social status in the community (Baker and Schuler 2005).

An average income of poor urban in Kathmandu is Rs 250/day/family (Table 5). Foreign employment seems to be an important source of household income. But very few households are involved in the foreign employment. It also depends on the financial and social networking and individual willingness to go abroad to support his/her family income. Besides this, sample data revealed that skill–based activities fetch comparatively higher returns than others. For example, income/day from driving, carpentry and masonry, underling private and professional services has better increases. Petty business and contractual work are also a major source of family income. The worst activity in terms of income is domestic helper (Rs 86/day) where only women are involved, followed by agriculture and livestock (Rs 133/day). Overall, the highest return is calculated from contractors in construction activities (Rs 625/day) followed by driving (Rs 600/day). An earlier studies in Afghanistan reveals that urban poor have earned Afghan Afghani (Af) 116, 123 and 29 (equivalent to Rs 178, 189 and 45 respectively[3] from casual work, self-employment and home-based activities respectively (Schutte 2006, 17); while this is Rs 242, 348 and 86 from casual work, self-employment and home-based activities respectively in Kathmandu (Table 6).

Table 5: Household Income and Expenditure (Average Rs/day by Activities)

Activities	Income	Expenditure	Balance/Saving
Foreign Employment	441	186	255
Driving	360	241	119
Petty Business/trade	336	209	127
Contract & Contractors	330	231	99
Carpentry and Mason	293	169	124
Service (P)	226	144	82
Wage/Labor	209	134	75
Service (G)	174	125	49
Agriculture and Livestock	133	76	57
Domestic Helpers	86	55	31
Others	181	117	64
Average	250	153	97

Note: 'P' denotes private and professional services; 'G' denotes government services

Table 6: Comparative Overview of Livelihood Activities

Urban	Activities (Percentage of Poor Engaged)					Sources
	Self-employed	Casual Work	Home-Based Work	Services	Not Specified	
Kathmandu	25.51	33.17	1.00	25.35	15.00	Self Study
Kabul	40.00	32.00	19.00	6.00	3.00	Beall and Schutte 2006
Dhaka	52.00	12.00	NA	17	19.00	Hossain 2005 (Modified)
Indian Cities	32.00	27.00	NA	41.00	NA	Sarin and Jain 2009 (Modified)
Ugandan Cities	31.00	20.00	NA	26.00	23.00	Bryceson et al. 2003 (Modified)

For easy interpretation, the household incomes are ranked (Table 7, Figure 3). Data revealed that 40% households have an average income in between Rs 201-400/day and one-fifth Rs 501- 1000/day. It is also found that more than 6% households have average income above Rs 1000/day which is almost equivalent to middle class income of Kathmandu[4]. Gini coefficient[5] of 0.34 indicates the level of concentration of income of families living in the poverty pockets (Annex).

Table 7: Ranking Household Income (Rs/Day)

Income Rs/Day	100 and Below	101-200	201-300	301-400	401-500	501-600	601-700	701-800	801-900	901-1000	Above 1000
HH %	4.79	16.61	27.80	12.46	11.82	8.31	3.83	1.60	5.11	1.28	6.39
Total (%) 100.0; N= 314											

Figure 3: Distribution of Family Income among the Poor
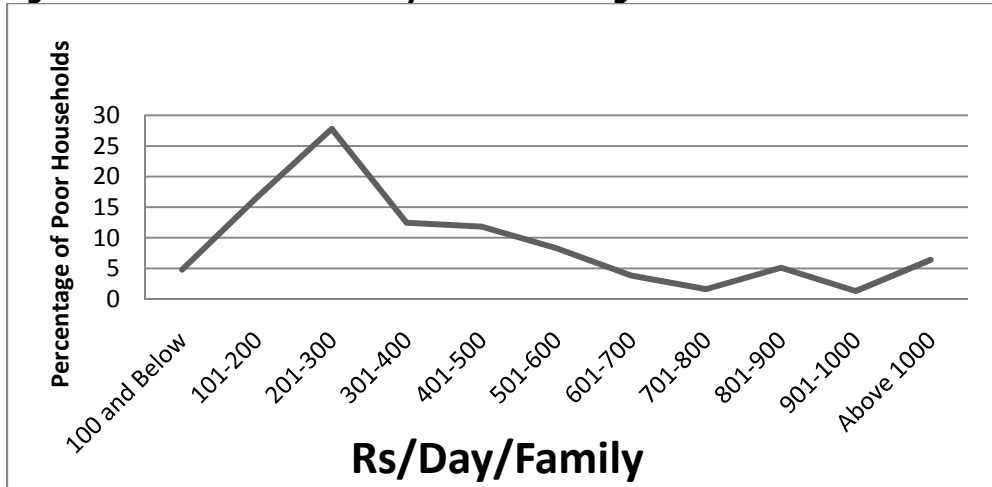
Level of income can also be described from the perspective of ethnicity. Survey revealed that about one-fifth household belongs to *Brahmin/*Chhetri, *Janajaties,* and *Newar* communities having an income up to Rs 200/day. Income ranges of Rs 201-500/day is reported more by Dalits (68%), followed by Newar (62%), *Janajaties/*Minorities (53%) and Brahmin/Chhetri (40%). *Brahmin and Chhetri* are recorded higher incidence of lower income ranges (Rs up to 200/day) as compared with other communities in the poor urban pockets in Kathmandu. In addition, those households which have income Rs 100/day or less reported more than fifty percent (53.33%) in *Janajati*. Corresponding figure is only about 7% for *Newar* communities. About 9% Dalit household record income of more than Rs 1000/day (Table 8). An earlier study shows that hill ethnic communities[6] in Kathmandu metropolitan city are relatively poorer followed by *Newar, Brahmin* and *Chhetri* (Lumanti 2005, 26). In the case of urban poor, it is different where-in Dalits and *Newars* have comparatively poorer with low per-capita income and suffer poverty. Lowest average household income is found among *Newar* community (Rs 95/day) as compared to *Brahmin/Chhetri* (108/day) and *Janajaties/*Minoroties (Rs 105/day). The lowest per-head income calculated for *Dalits* is Rs 401/day as compared to Rs 510 for *Brahmin/Chhetri* communities. Chi-square (χ^2) value however shows that household income and ethnic background are not related (Annex).

Table 8: Average HH Income by Ethnicity

Ethnic Community	Income (Rs/Day)										
	100 & Below	101-200	201-300	301-400	401-500	501-600	601-700	701-800	801-900	901-1000	Above 1000
Brahmin/Chhetri	40.00	26.92	22.99	10.26	18.92	30.77	16.67	60.00	31.25	50.00	30.00
Janajaties	53.33	44.23	48.28	61.54	51.35	50.00	66.67	40.00	56.25	25.00	50.00
Dalits	0.00	9.62	17.24	15.38	5.40	3.85	8.33	0.00	6.25	0.00	15.00
Newars	6.67	11.54	9.19	12.82	21.62	15.38	0.00	0.00	6.25	0.00	5.00
Others	0.00	7.69	2.30	0.00	2.71	0.00	8.33	0.00	0.00	25.00	0.00
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
N=	15	52	87	39	37	26	12	5	16	4	20 N=313

Note: Figure parentheses represent percentage

Average household income in the metropolitan city area has been found Rs 443/day/family. Among the sampled poverty pockets, Shantinagar, Bijayanagar and Ramhiti have almost double the household income of Kalopul (Rs 300/day). The lowest household income is recorded at Kalimatidol (Rs 355/day) followed by Balkhu (Rs 380/day) (Table 8). Study clearly shows that there is significant difference in household income among the sampled poverty pockets. For example, the lowest per capita income in Gairigaun is Rs 69/day/person as compared to highest in Narayantol and Panchayanghat of Rs 121/day (Table 9).

Table 9: Per-capita Household Income by Location (Rs/Day)

Location/Poverty Pockets	Household Income	Household Size	Per-capita Income
Bhimmukteshwor	404	4.7	86.00
Inyadol	386	3.7	104.37
Panchayanghat	434	3.6	120.54
Ramghat	441	3.8	116.00
Shantibinayak	478	5.6	85.30
Balkhu	380	4.3	88.33
Bijayanagar	569	4.0	142.36
Dhikure	452	6.0	75.33
Gairigaun	413	6.0	68.75
Kalimatidol	355	3.7	96.67
Narayantol	507	4.2	120.82
Shankhamul	384	4.0	94.81
Shantinagar	593	4.1	146.30
Jagrititol	436	4.4	98.22
Kalopul	300	4.0	75.00
Palpakot	417	4.6	90.74
Ramhiti	583	5.1	114.71
Average	443.0	4.5	101.4

The level of household income is highly fluctuating, and depends largely on the population characteristics such as age, gender, family structure and household size, nature of work, seasons and working hours. Some communities, particularly Newars, still   practice a joint family system (FGD, November 2009) but new squatter settlement, for example Panchayanghat (Thapathali) has small household size e.g. 3.6, mostly in the age group of 11-30 years. In these types of community, they have either no children or 1-2 children and both male and female usually are involved in some kind of gainful activities. These household incomes are dependent on the seasonal work and the availability of work in the vicinity. Usually, poor have lower chances of earning income during the winter due to shorter day time and severe cold. Many of them do not get proper employment and travel distance for work to support their family livelihood (FGD, November 2009). It shows that poor people have low productivity of employment and consequently low level of income.

Average expenditure by the poor in Kathmandu is found Rs 153/day/family. Those people who are involved in driving or work as a contractor and those in construction, petty business and trade activities make highest expenditure and those who work as a domestic helpers and are involved in agriculture and livestock have record lowest level of expenditure (see Table 5). Poor households in Kathmandu metropolitan city spent nearly 52% of their income in food and fuel followed by transportation (20%) and education (10%). They spent only 5% in

purchasing clothes and garments and about 8% spent on health (FGD, February 2010). These households do not usually send their children to private and boarding schools and do not have access to private hospitals and nursing homes due to high costs. Therefore, they have to patronize the local government schools and utilize Government/public (local) health posts and hospitals. There is increased awareness about the need for saving even from their limited income. In this field, local saving and credit groups and national organizations play a key role. They deposit certain amount of money on daily or monthly basis in the local credit cooperatives. The poor have no access to the national level banks and financial institutions due to their illiteracy; they are largely ignored by the banking sectors (FGD, December 2009).

Correlations among the Socio-economic Parameters
An attempt has been made to examine the relationship between income and other socio-economic parameters such as family size, education, landholding and working hours by using linear multiple regression. The unit of analysis of these variables are income in Rs/day, number of family members, education index (the sum of formal classes divided by total number of family), size of land holding (in ropani) and working hours/day. Table 10 summarizes the basic characteristics for the sample households taken together.

Table 10: Descriptive Statistics for Sample Household

Parameters	Mean	Std. Deviation	N
Family Income (Rs/day)	448.79	331.98	321
Family Size	4.22	1.59	321
Education Index	19.25	15.45	321
Land Holding	.68	2.45	321
Working Hours	14.46	8.36	321

Table 11 shows that household income is positively correlated with family size, education and working hours.

Table 11: Correlation Coefficient (Pearson's)

Parameters	HH Income (Rs/day)	Family Size	Education	Land Holding Size (Ropani)	Working Hours/day
HH Income (Rs/day)	1.000	.314	.349	.021	.519
Family Size	.314	1.000	.641	-.039	.428
Education	.349	.641	1.000	-.013	.392
Land Holding (in ropani)	.021	-.039	-.013	1.000	-.007
Working Hours/day	.519	.428	.392	-.007	1.000

The results of linear multiple regressions are shown in Table 12. Stepwise regression using SPSS computer package was carried out. The criterion used for developing this model was the probability of 0.05 of 'F' to enter variables into the model and 0.10 for removal. The value multiple coefficient of determination (R squired) i.e. the proportion of the total variation in the 'n' observed values of the independent variable shows that only 30.1% of the total variation in the household income is explained by the model.

Table 12: Variance Explained by Regression Model

Model Summary

Model	R	R Square	Adjusted R-Square	Std. Error of the Estimate
1	.549(a)	.301	.288	280.11

Predictors: (Constant), Land Holding, Working Hours, Education, Family Size,

T-values and its probability are generally used to identify the important independent variable affecting dependent variable. There is strong evidence that the intercept value is significant with probability value of 't' distribution . Similarly, there is strong evidence that education and working hours are significantly related with household income (Table 13).

Table 13: Values of regression model and its variables

Model	Unstandardized Coefficients		Standardized Coefficients	t-value	Sig.	Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Zero order	Partial	Part	Tolerance	VIF
(Constant)	127.300	49.298		2.582	.010					
Family Size	3.175	13.305	.015	.239	.812	.314	.013	.011	.549	1.820
Education	3.417	1.345	.159	2.539	.012	.349	.142	.120	.567	1.762
Land Holding	4.353	6.419	.032	.678	.498	.021	.038	.032	.992	1.008
Working Hours	18.009	2.111	.453	8.531	.000	.519	.434	.402	.787	1.270

Dependent Variable: Household Income

CONCLUSION

Urban poor are assets of urban economy and are mostly involved in informal sector of urban economy. They have diversified and unstructured sources of income due to their irregular and seasonality of employment/works. The common areas of interests for earning cash are wage/labor, small scale business including vending; and private and professional services. Many youth are attracted either to private and professional services, which include secretarial services, repairing, maintenance and painting, or in the foreign employment in the gulf or south-east Asian countries. Statistical significance test of income generation activities by age, ethnic background and level of education, it is found that particular kind of activities are confined to specific age group and to given ethnic and education background. Gini-coefficient index also reflects the income inequality among the poor families. Similarly, amount of family income largely depends on ethnic background, working hours, nature and seasonality of works. Among other, there is a significant impact of education and working hour on household income.

It is true that, large numbers of poor families are living in the squatter and slum area, they are not only poor and unemployed but some of the economically well-off people are also living in the area. We could not neglect them; they are assets of urban economy, hard working and decent people; and contributing to boost informal sector of urban economy. However with poor policies and working mechanism, they are discouraged and largely ignored in the development process. They have poor accessed of modern banking and financial, in many cases, policies discouraged them for providing credit facilities.

NOTES

- *Central Zone* refers to those areas which are playing as a centre role in terms of administration and business. This is the CBD zone and urban downtown of the Kathmandu Metropolitan City, where business and administrative function are recorded high and reported to high residential density. A *middle zone* includes these areas which has mixed land use particularly residential (medium residential density) cum commercial inside the ring road. In the *periphery zone,* in this study, defines the areas outside the ring road of Kathmandu Metropolitan City, which is relatively new urban expansion zone and having low residential density.
- It involved nutrition of per capita 2, 124 kcal per day, selected food items and their average value, non-food items (calculated for clothing, rent, utilities, education, medicine, entertainment and other and the averages adopted by NLSS) were priced at average Kathmandu price and calculated on the basis of monetary value; and determined Rs 12,000 taking into the 2005 price level (Lumanti 2005, 12).
- The currency Converter, based on 1st March 2010, International Monetary Fund. Available at http://www.CoinMill.com, [Accessed 02 March 2010].
- Lumanti Support Group for Shelter 2005 had conducted a survey on poverty income, employment and urban facilities in Kathmandu Metropolitan city, and defined; persons having an income of less than Rs. 12,000 have been categorized as poor; persons having an income range of Rs. 12,000 to 25, 000 as lower medium; Rs. 25001 to Rs. 60,000 as medium and above Rs. 60,000 as upper medium and rich (Lumanti 2005, 12).
- The extent of inequality/unevenness between total number of families and total income is measured by an index known as 'Gini coefficient'. This coefficient is indicated by expressing it as ratio of area bounded between the equality line and the Lorenz curve. The coefficient index ranges from 0-1. The index '0' represents perfect equality and '1' indicates a perfect inequality.
- In the study hill ethnic communities are refers to Janajaties and Minorities originated in hills and mountain region.

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Annex

A. Income Inequality (Gini-Coefficient)

Income (NRs/day)	Cumulative Percentage	
	No of Family	Total Income
200 & below	21.40	7.54
201-400	61.66	34.70
401-600	81.79	58.49
601-800	87.22	67.45
801-1000	93.93	79.83
Above 1000	100.00	100.00

$$Gc = \frac{1}{(100)^2} \left[\sum_{i=0}^{i=n} X_i Y_{i+1} - \sum_{i=0}^{i=n} X_{i+1} Y_i \right]$$

$$= \frac{1}{(100)^2} [26221.5815 - 22723.1057] \qquad = 34.98$$

Result: Tending towards inequality of income among the poor families in Kathmandu. It also assumes that the income is concentrated for some families living in the poverty pockets.

B. Household Income by Ethnic Background

Null Hypothesis (H_o): Household income and ethnic background are independent.
Alternative Hypothesis (H_1): Both variables are dependent.

Observed Frequency (f_o)

	Brahmin & Chhetri	Janajati & Minorities	Dalits	Newar & Others	Total
Rs 200 & less	20	31	5	11	67
Rs 201-400	24	66	21	15	126
Rs 401-600	15	32	3	13	63
Rs 601-800	5	10	1	1	17
Rs 801-1000	8	10	1	2	21
Above Rs 1000	5	10	3	1	19
Total	77	159	34	43	313

Expected Frequency (f_e)

	Brahmin & Chhetri	Janajati & Minorities	Dalits	Newar & Others	Total
Rs 200 & less	16.48	34.04	7.28	9.20	67
Rs 201-400	31.00	64.00	13.69	17.31	126
Rs 401-600	15.50	32.00	6.84	8.66	63
Rs 601-800	4.18	8.64	1.85	2.33	17
Rs 801-1000	5.17	10.67	2.28	2.88	21
Above Rs 1000	4.67	9.65	2.06	2.62	19
Total	77.00	159.00	34.00	43.00	313

Chi-square (χ^2) (Obtained) $= \sum \dfrac{(f_o - f_e)^2}{f_e}$

$= (0.75+1.58+0.20+0.16+1.55+0.02)+(0.27+0.06+0.00+0.21+0.04+0.01)+(0.71+3.90+2.16+0.39+0.72+0.42)+ (0.35+0.31+2.17+0.76+0.27+1.00) \qquad = 18.02$

Degree of Freedom (Df) $= (r-1)(c-1) \qquad = (6-1)(4-1) \qquad = 15$

χ^2 (Critical) at 0.05 significance level $= 24.996$

Result: H_o Accepted. Household income is not controlled by ethnic dimension of population. Both variables are independent.