### **ABBREVIATIONS**

ADB	Asian Development Bank
APP	Agricultural Prospective Plan
BS	Bikram Sambat
C3ED	Central for Economics and Ethics for Environment and Development
CBS	Central Bureau of Statistics
CDR	Central Development Region
CTEVT	Technical Education and Vocational Training
DDC	District Development Committee
DECONT	Democratic Confederation of Nepalese Trade Unions
DFID	Department for International Development
EDR	Eastern Development Region
FAO	Food and Agriculture Organisation
FBS	Firms Basic Survey
FS	Formal Sector
FSU	First Stage Units
FWDR	Far-Western Development region
FY	Fiscal Year
GBB	Gramin Bikash Bank
GDP	Gross Domestic Product
GEFONT	General Federation of Nepalese Trade Unions
HMG/N	His Majesty Government Nepal
IBP	Intensive Banking Programme
ICLS	International Conference of Labour Statisticians
ILO	International Labour Organisation
IMF	International Monetary Fund
INGO	International Non-government Organisation
IS	Informal Sector
LFS	Labour Force Survey
MFP	Micro-Finance Programme
MOF	Ministry of Finance

MPHBS	Multi-Purpose Household Budget Survey
MWDR	Mid-Western Development Region
NA	National Account
NG	Nepal Government
NGO	Non-government Organisation
NHDR	Nepal Human Development Report
NLFS	Nepal Labour Force Survey
NLSS	Nepal Living Standard Survey
NPC	Nepal Planning Commission
NSIC	Nepal Standard Industrial Classification
NRB	Nepal Rashtra Bank
NSS	National Standard Survey
NSSO	National Sample Survey Organisation
OECD	Organisation for Economic Co-operation and Development
PRSP	Poverty Reduction Strategy Paper
PSU	Primary Sampling Unit
SAAT	South Asian Advisory Team
SNA	System of National Accounts
UFS	Urban Frame Survey
UN	United Nations
UNDP	United Nations Development Programme
UNICEF	United Nations International Children Educational Fund
USA	United States of America
USU	Ultimate Sampling Unit
VDC	Village Development Committee
WB	World Bank
WDR	Western Development Region
WDR	World Development Report
WEP	World Employment Programme
WFP	World Food Programme

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### Ram Chandra Dhakal



### Certificate

This is to certify that the present work of the doctoral thesis entitled "A STUDY OF EMPLOYMENT AND INCOME GENERATION IN INFORMAL SECTOR OF CHITWAN DISTRICT, NEPAL" submitted by Shri Ram Chandra Dhakal is a written record of the original research work carried out by him under my supervision and that the present thesis did not form the base for award of any previous degree to him or any other person.

Supervisor

(**Dr M.K. AGARWAL**) Department of Economics, University of Lucknow, Lucknow – 226 007 (India)

### PREFACE

Unorganised sector, popularly known as informal sector can be defined in the Nepalese context as those sectors employing less than 10 employees/ workers. The common characteristics of this sector are: 1. Free entry and exit of the workers; 2. Low income; 3. Low productivity; 4. Low capital intensity; and 5. Low scale of operation. The ILO defines this sector as " comprising small scale units largely of individuals, self employed producers in urban areas, some of whom employed family labourers and /or a few hired workers, which operate with very little capital or none at all, which utilise a low level of technology and skills, which operate at a low level of productivity, which generally provide very low and irregular income and highly unstable employment to those who work in these units. They are informal in the sense that these are unregistered and unrecorded in official statistics and studies; have little or no access to organised markets to credit institution, to formal education and training institution or to many public services and amenities".

This also exactly applies to the Nepalese informal sector. Based on the above definition, for simplicity, the Nepalese informal sector can be divided into two broad categories; 1.Self employed persons, and 2. Wage earners Self employed persons are those who work with their family or with the help of occasional outside labour such as small owner cultivators, share croppers, tenant, fishermen, animal husbandry, artisans, street vendors, rickshaw pullers etc. whereas wage earners are those who operate on a casual basis.

Informal workers are unprotected, deprived of legal facilities and other social security measurers which most of the workers of organised sectors enjoy. They suffer from many handicaps, such as underemployment, low skill, low income, no access to resources and as this sector is covered by labour legislation, and the workers are vulnerable to various political, economic and social pressures. They have no or very little bargaining power and 'strike' also

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no longer remains their weapon, because if they call strike for a day they have to starve the another day as they have nothing in store.

Non-agricultural rural informal sector includes various establishments of traditional and non-traditional cottage industries. The traditional cottage industries in Nepal are: hand loom, pedal loom, semi-automatic loom, wrapping, dyeing, printing, sewing, knitting, local carpet, woolen carpet, pasmina, woolen garment, carpentry, wooden handicraft, bamboo and cane goods, materials made from natural fibers, hand made paper, gold, silver, brass, copper work and ornaments, image making, precious and semi-precious stones, honey, big cardamom processing, pottery, leather cutting, drying and village tanning and leather works, jute, babio choya and goods from cotton thread, leather goods, artistic goods from bones and horns, stone carving, stone studded metal goods, painting, pauwa, batik, materials made from hand made paper, incense, dolls, toys and stone studded metal filigree commodities.

Informal sector is not an isolated sector; it has interdependence with the formal sector. That's why, it is not only surviving, but also increasing day by day. Workers are not a commodity of a market!" This statement is being propagated for long. Either in political philosophy (through Marxism) or by the declaration of International Labour Organisation (ILO), this statement has been endorsed by everybody. But in our labour market practice is just opposite. Based on this background, we should amend our existing labour laws to protect poor informal labourers. There should be sufficient ground for recognition of Craft Unionism. To challenge hidden condition of labour force in informal sector, there should be proper provisions to cover self-employed workers inside trade union movement. Informal sector can be protected by proper package of social security. Till now, we do not have such scheme. Thus, we should urgently take steps towards this direction.

#### March 2008

#### RAM CHANDRA DHAKAL

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CHAPTER-1 Introduction, Review of Literature and Methodology

## CHAPTER-2 Basic Features of the Nepalese Economy and the District of Chtwan

### **CHAPTER-3 Pattern of Poverty and Unemployment in Nepal**

## CHAPTER-4 Growth of Organised and Unorganised Sector in Nepal and Chitwan District

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CHAPTER-9 Conclusion and Policy Suggestions

# Annexure

### CHAPTER-I INTRODUCTION, REVIEW OF LITERATURE AND METHODOLOGY

### **1.1 INTRODUCTION**

### 1.1.1 Background

Informal economic activities are not new phenomena. They exist all over the world and have been here for ages. During the 1950s and 1960s, it was widely assumed that, with the right mix of economic policies and resource allocation, traditional subsistence economies could be transformed into dynamic, modern ones. The traditional sector - comprised of petty traders, small producers, and a range of causal jobs- would be absorbed into the modern capitalist or formal economy and, thereby, disappeared. This belief was reinforced by the successful rebuilding of Europe and Japan after the World War II and the expansion of mass production in Europe and North America during the 1950s and 1960s. By the mid- 1960s, however, the optimism about prospects for economic growth in developing countries began to give way to concerns about persistent and widespread unemployment. This concern led the ILO to mount a series of large multi-disciplinary 'employment mission' to various developing countries. The first of these was to Kenya in 1972. The Kenya employment mission, through its official report, recognized that the traditional sector there had not just persisted but expanded to include profitable and efficient enterprises apart from marginal activities <sup>1</sup>

To highlight the fact, the Kenya mission chose to use the term 'Informal Sector' rather than 'Traditional Sector' for the range of small scale and unregistered economic activities. This term had been coined the year before

<sup>&</sup>lt;sup>1</sup> W.T.S. Sankaran and V.R. Rao, 'The Urban Informal Sector in India; A study of Govindpuri (Delhi), New Delhi; Friedrich-Ebert-Stiflung, 1995, p 15.

by a British economist, Keith Hart, in his 1971 study of economic activities in urban Ghana.<sup>2</sup>

If adequate trust is accorded to informal sector as in Japan, Germany, and the USA, the socio-economic life of the people might improve substantially. Trust, though it falls in the category of externality, is an important lubricant of social system and is treated as a commodity or goods having practical and economic value. It not only increases the efficiency of a system but also helps to produce more goods and efficient services<sup>3</sup>.

In the 1980s, Latin America served that employment in the informal sector tends to grow during a period of economic crisis. Similarly, in Asian economic crisis, a decade or more later, a million of people who lost formal jobs in the former East Asian Tiger countries tried to find jobs or create work in the informal economy. Moreover, structural adjustment in Africa and economic situation in the former Soviet Union and in the Central and Eastern Europe were also associated with the expansion of employment in the informal economy<sup>4</sup>.

During the 1990s, globalization of the economy contributed to the informalization of the workforce in many industries and even countries. While globalization generates new jobs and new markets, available evidence suggests that not all the jobs are 'good' jobs

The present study is the study of informal sector. It examines the employment pattern, relative productivities, and occupational effects in informal sector in rural and urban areas in Chitwan District of Nepal. The study is based on primary sources from sample survey in sample units of rural and urban areas in Chitwan District. The distinction between 'rural' and 'urban' is based on the official classification made by the Ministry of Local Development of government of Nepal. 'Informal sector' refers to a small-scale business or

<sup>&</sup>lt;sup>2</sup> Keith Hart, 'Informal Income Opportunities and Urban Employment in Ghana', The Journal of Modern African Studies, vol 11, No. 1, pp 61-89 (1973).

<sup>&</sup>lt;sup>3</sup> Francis Fulcuyama, Trust, The social virtues and the creation of prosperity New York, PenguinBook 1995 pp, 151-52

<sup>&</sup>lt;sup>4</sup> DECONT (2005), 'The Informal Economy Challenges for Trade Unions' Dec 2005, Kathmandu, Nepal. P. 3

services, the main job is not in agriculture, with or without hired labourers, typically operating with a low level of organization often from temporary structure with or without fixed location, less than ten employees, unorganized and unregistered with a specific act, as defined by Nepal Labour Force Survey (1998/99)<sup>5</sup>.

However, the informal activities in agriculture, main job in agriculture or formal sector and secondary job in informal, informal activities in formal sector, all the activities of informal economy have not been examined in this study. Here attempts are made to describe the characteristics, employment patterns and relative productivities of informal sector in location, sex, castes and occupations. It also examines the economic status, prime working age, financial activities, working period in different occupations in terms of sex and location.

It is emphasized that informal activities are pervasive and persistent economic features of the most developing economies contributing significantly to employment, production and income generation. Nepal's informal part in the economy is extremely large and is growing compared to tiny formal sector. The informal economy is characterized by unregistered and unorganized production. Many of the informal activities are outside the government's tax frame.

Some of the overriding characteristics of the informal economy in Nepal are cited in this literature which are as follows: "low and limited structure and coverage of organization; low levels of fixed investment and labourcapital mix, investor him/herself works as self employed worker and hires additional wage-labour in accordance with the requirements; difficulties in separating business and personal or household expresses leading to insecure working capital; range of production from petty commodity to small factories; hierarchy of intermediaries; easy decapitalisation due to the lack of entrepreneurial skills and also

<sup>&</sup>lt;sup>5</sup> CBS, 1998/99, Report on the Nepal Labour Force Survey, Central Bureau of Statistics, NPCS, NG, Nepal, Nov, 1999, pp 16, 61.

because of vulnerability to risks; lack of access to training leading to low productivity (thin profit margins) as informal workers generally lack skills; labour dominated by casual employment and social relationships as opposed to formal contracts; home base, family based pattern of production; the owner assumes all financial and non-financial obligations; lack of capacity to identify, understand, reach, or use specific markets; no social protection on to work against contingencies ; diverse character of wages and high wage differentials with domination of piece rate wages; lack of innovation because of isolation and lack of research and development; output not fully accounted for in the national accounts; low coverage by trade union movement increasing number of immigrants in informal economic activities; workers under various kinds of harassment in comparison to the formal sector;"<sup>6</sup> etc.

#### **1.2 Review of literature**

The volume of informal sector activities in Nepal is very large as compared to formal sector but the literatures for informal sector in Nepal are very few in number. The literatures about IS has tremendously increased in different issues after 1972 under the leadership of ILO. Some of the important literatures of informal sector under study are as follows:

**Jha et al., (1999)**<sup>7</sup>, examined the various activities of the informal sector workers through a sample survey in five Tarain urban centers of Nepal. The various characteristics of informal sector workers had shown in tabular form as a comparison of data of urban centers taking 1000 sample size. The average household size of the study areas was 5.17. Data showed that the illiteracy rate was 53 percent among the sample household members. Among them 20 percent were literate and remaining 21 percent had taken formal education. Similarly, of the total informal sector workers, 70 percent were self-employed while the remaining 30 percent were workers. As much as 91 percent of these workers including self-employed people and the workers

<sup>&</sup>lt;sup>6</sup> The informal economy and workers in Nepal, series-1, ILO, Kathmandu, Nepal 2004 pp.22-23.

<sup>&</sup>lt;sup>7</sup> Jha, H.B. Status of Informal Sector workers: The other sides of economy in Nepal. 1999, pp 1-29,

were self-employed to work in their occupations. Of these workers, 90 percent worked almost every day without taking any leave. They worked for almost 12 hours a day while the working hour according to the government was 8 hours only.

Of the total informal sector workers, the majority originated from the towns where they had established. However, 45 percent of them migrated to the towns from the outside, largest concentration of the migrated workers were around two-third (68 percent) and while the least was 10 percent showing a great diversity in the pattern of migratory trend among the informal sectors workers in the urban centers in Nepal.

The annual per capita of the informal sector workers' households was Rs.7090. They had been facing the lower living standard. These workers made surplus earning amounting to Rs.373. Nearly 61 percent of these workers think that their income was normal. Of the total workers, 49 percent also make savings.

However, most of the informal sector workers had been facing strong competition from the modern sector. Commonly, they had to work with the small tools/equipment (a minimum to Rs.200 to a maximum Rs.25000) averaging Rs.6000 only or if at all they hired such tools/equipment paid an amount averaging Rs.25 per day. All these workers worked on so small scale that it was really very difficult for them to compute with the modern sector, between it in the field of rickshaw pulling or Tanga driving. The mini-buses and three wheelers had been snatching market from the rickshaw pullers and Tanga drivers.

The informal sector workers faced difficulties due to the inadequate supply of raw materials, lack of capital and shortage of supporting staff during the peak season. Most of them were untrained. Many of them failed to maintain account of their earnings. Also there was a domination of the male population in the informal sector. The women were yet to make their presence strongly felt in this sector.

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Of the total establishments, the informal sector workers owned 57 percent while the remaining 43 percent were rented. Some 35 percent of the informal sector workers had no alternative but to have their establishments on the footpath. 66 percent of them had not been any kind of training and 75 percent had no access to credit institutions to run their activities. Though, most of the informal sector workers want to stick to occupations because they were unaware of the alternative sources of livelihood.

Survey result also showed that 90 percent of the informal sector workers perform their duties varying between 26 and 30 days in a month .Similarly, 45 percent of the informal sector workers had been working for 6 to 8 hours in the same occupation. On the earning side, the average monthly earnings of 71 percent of the informal sector workers ranges between Rs.1000 and Rs.3000 while those of 26 percent workers vary from Rs.3000 and Rs.5000. Only 2 percent had earnings above NRs.5000.

The informal sector, though playing a key role in the national economy, was grossly neglected. In the past, HMG/N (NG at present) initiated contain programmes which could have served the internets of the informal sectors' workers. But the impact of any of such activities was least. None of the informal sector workers reported that they were ever motivated by the government to get themselves engaged in certain occupations. Similarly, the NGOs and INGOs that had been growing in this country in geometrical proportion also could not contribute anything significant to the informal sector workers in decent form.

In this study the informal sector in Nepalese context was defined as – " the informal sector can be defined as the small and mostly unregistered units carried out individually or by self employed family members and for by hiring less than ten workers in the rural and urban areas with very little capital, low technology, unskilled or semi – skilled manpower. These units might constitute agricultural and non - agricultural workers including the bonded labourers, child labourers and women sex workers. The returns from such units are as small that it is hardly enough to maintain the day – to – day life

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with very little prospects of savings and investment. The government usually does not provide credits and such other facilities in this sector as provided to the formal sector:

This study has focused the basic characteristics of the informal sector including easy to entry, low capital intensity and low scale of operations tends to result in low income earning capacity which was the most distinguishing feature of informal sector units. In the Nepalese context, the upper limit of Rs.50000 for investment in fixed and working capital and less than ten persons for employment in the small units could be treated as informal sector activities. Also the farmers holding up to 5 Bighas <sup>8</sup> Of agricultural land and employing less than 10 agricultural workers might be treated as workers in non – agricultural sector activities. Informal sector workers had classified under six headings- they were manufacturing, business & trade establishments, services, repairing and agriculture.

**ILO (2004)**<sup>9</sup>, is the first and one of the most important studies in the informal sector which has done by ILO as a decent work for all women and men in Nepal. For the first time, the significance of the informal economy (in this literature, informal economy includes all types of economic activities out side the formal sector where as informal sector covers family enterprises and micro enterprises is one of the significant components) is recognized and the challenges facing workers discussed.

This study has used the secondary data for the analysis of informal sector activities. The sources of secondary data were from population census CBS, Nepal-2001, NLFS -1998/99, Survey of small manufacturing establishments CBS, Nepal, 1999/2000, NLSS -1996. The main objectives of the study were: to measure the informal activities of women, men and children, number of type of workers by sex and age, income and working hours, working conditions, challenges and issues, policies and legislation, etc. This study concludes that the informal economy in Nepal is very big and growing. It is

<sup>&</sup>lt;sup>8</sup> 1 bigha is equal to 0.6773 hectare

<sup>&</sup>lt;sup>9</sup> ILO (2004), 'The Informal Economy and Workers in Nepal' Kathmandu, Nepal, 2004

transforming itself gradually from subsistence economy to a market based commercialized economy but still it remains grossly neglected by the state. Hence, the people engaged in this sector have to face uneven competition, low remuneration, poor working conditions and all possible sorts of economic and social exploitation. It has heterogonous characteristics in all cases. Government policies and legislation are also becoming void due to enforcement problems. Informal workers do not receive legislative and other support as compared to their counterparts in formal sectors, neither the self employed producers nor the wage dependent workers.

Trade unions have only recently begun to enter the informal world, which is vast and definitely takes a long way to go. I/NGOs have also come into the scene, particularly after 1990 they have started to work on some issues of the self-employed population and on some labour issues where unfair and exploitation practices are visible. Trade unions are unable to cover all the workers of informal activities both in rural and urban areas.

The overriding challenges/issues in the informal economy are somewhat different for the employers and the workers. While employers (producers) need transportation, storage, marketing, credit and enterprise security (insurance) support, workers need a guarantee of minimum wages, fair wages based on skill and productivity above the minimum wages, employment security and social protection, regulating the long working hours to eight hours a day, and a decent work environment. Other challenges to workers include displacement from compensation arrangement are in practice for such displacement.

There are virtually no social employment security arrangements for informal workers. For employers also, there is no market and enterprise security. Security measures for workers in the informal sector rest solely with employers. The compensation laws are absent and compensation practices are sporadic. There are more enforcement gaps than legislation gaps. One reason behind the enforcement gaps is the practice, on the part of the

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government of legislating on protection issues without any commensurate support.

Women are double sufferers in all conceivable socioeconomic situations and receive biased treatment in informal jobs in the form of wages and working conditions. The informal economy is also growing with the help of child labour at the cost of the child. The major factor behind the low productivity and earnings in the informal sector is the poor support system in terms of technology, training and credit availability, etc., Demand side interventions are neglected in the support system. Each support unit is taken independently instead of a package of support. Lack of up-gradation of technology pushes informal activities into a low equilibrium trap (poor selling to the poor).

ILO (2004)<sup>10</sup> is one of the important studies on informal sector in Nepal of ILO. This study has mainly focused on the social protection in the informal workers as a decent work for all women and men in Nepal. Social protection is required to the workers and vulnerable groups in the informal economy in Nepal which is the central theme of the study. The main objectives of the study were: identify the scope of social protection for workers and vulnerable groups in the informal economy both in terms of risks and needs; to analyse existing social protection schemes and initiatives in terms of coverage, redistributive efforts, and poverty alleviation; to analyse coverage both in terms of the proportion of the relevant population covered and the level or quality of coverage; and to purpose desirable and practical recommendations for social protection measures for workers in the informal economy, within an environment of present resource constraints. In this study both primary and secondary information collection tools had used. However, this study was the first its kinds in Nepal. So, the available secondary data was limited in gathering information and due to the difficult security situation at the time of field research, data could not be collected from all of Nepal's districts.

<sup>&</sup>lt;sup>10</sup> ILO(2004), ' Social protection for people in the informal economy of Nepal', series 3, 2004,ILO, Kathmandu, Nepal
Nepal's middle-income groups and the mainly urban formal workforce have been the main beneficiaries of existing worker oriented security provisions. Yet the chaining pattern of employment means that this small privileged proportion of Nepal's working population is now shrinking and the informal economy is rapidly expanding.

A recent ILO study of the informal economy in Nepal through this literature make a number of points about social protection needs and their comments in the informal economy in Nepal which we quote here under:

- 1. There are virtually no social or work security mechanisms for workers in the informal economy. Security measures rest solely with the employers. Compensation laws are absent and compensation practices are sporadic. There are more enforcement gaps than legislation gaps. One reason behind these enforcement gaps is the practice of successive governments in legislating for protection without providing any commensurate support.
- 2. In many cases, the regulation and policing of the informal economy by municipal authorities in Nepal has actually restricted the activities and livelihood opportunities of the poor.
- 3. Nepal will not see substantive economic development without the development of the informal economy. Poverty in Nepal cannot be reduced unless issues in the informal economy are mainstreamed.<sup>11</sup>

The ILO has identified four specific mechanisms for extending social protection:

- 1. the extension of insurance schemes;
- 2. the encouragement of micro-insurance;

<sup>&</sup>lt;sup>11</sup> ibid p-6

- the introduction of universal benefits or services financed by general state revenue; and
- 4. the establishment or extension of means tested benefits or services social assistance, also financed by general tax revenues.

DFID (Department For International Development) describes social protection as the public actions taken in response to levels of vulnerability risk and deprivation, which are considered to be unacceptable.

Similarly, ADB (Asian Development Bank) defines protection as the net of polices and programmes designed to reduce poverty and vulnerability by promoting efficient labour markets, diminishing people's exposures to risk, and enhancing their capacity to protect themselves against the hazards and the interruption/loss of income. The ADB approach to social protection consists of five major areas: labour markets, social insurance, social assistance and welfare programmes, micro and areas based schemes and childhood protection.

The WB (World Bank) defines social protection in more technical terms. Social protection reduces the variance of a household's utility over time. Polices promoting growth and increasing access to health education services try to improve the average well being of the poor, while polices falling under the purview of social protection are designed to create opportunities for households to manage risks better and to reduce the impacts of shocks.

From Diagram-01, all categories want social protection from government but actually social protection mainly needs to small groups; landless agricultural workers; Kamaiyas former bonded workers, Haliys, Dalits, (untouchable caste); displacement and forced migration; construction workers; porters and loaders workers; street vendors; home-based workers; women in the informal economy, poor, vulnerable and widowed women, elderly people from the poorest classes; disabled people; child labours etc., in Nepal at present situation.

## Diagram<sup>12</sup>-1.1



There are various social protection programmes running separately or jointly by government, I/NGOs and social institutions in Nepal in different forms such as in District Development Committees, Municipality Development Committees, and Village Development Committees level in different time regularly or ad-hoc. Social protection programmes done by the government level in different time in different placed were running ,some of them were: one Baalmandir in each district for child education, programmes for blind and disable people, handicapped or mentally retarded children and adults, land resettlement programmes for landless people, government offering stipends to poor and talented students, hospitals for public, etc..

<sup>&</sup>lt;sup>12</sup> Ibid p-14

Similarly, since the mid-1950s I/NGOs have been providing social welfare services in Nepal. Financial cooperatives, farmer organizations, women organizations, micro-finance institutions, etc. are giving the functions to boost up the income level of the poor or informal workers in the name of poverty reduction and ultimately for the economic development both in rural and urban areas in Nepal. But these activities of government or I/NGOs are insufficient and less efficient for vulnerable workers groups related to informal sector in Nepal.

**A.T.M., Nurul Amin (1996)**<sup>13</sup> is also an editor of the 'Regional Development Dialogue vol. 17, No.1, Spring 1996, Two Decades of Informal Sector Studies: Lessons Learned' has studied on titled 'The Asian Settings of the Informal Sector's Growth Dynamics'. This study has based on secondary data. Despite the rapid economic growth which now characteristics a large part of Asia, the fact remains that there is a vast rural- agricultural sector that continues to send millions of migrants to the urban areas as a way of coping with the pressures of adjusting to the exchange economy that has now mostly eliminated the self sufficient village system that had existed in Asia for centuries. It is basically a plea for researchers, planners, and policy makers to formulate innovative approaches to integrate the IS into the urban economy based on the experience of many countries. The Informal sector can neither be abolished nor encouraged from the economy in any country.

Based on Amin's experience of the IS in the Asian pacific region, and supported by some empirical evidence. He makes several interesting observations on the positive impacts that the IS can have on socioeconomic development. These include the following:

 The IS plays a significant role in labour absorption by providing some income- increasing opportunities to the disadvantaged in terms of socioeconomic background, skills, education, and assets;

<sup>&</sup>lt;sup>13</sup> A.T.M., Nurul Amin ed al(1996), 'The Asian Settings of the Informal Sector's Growth Dynamic' on Regional Development Dialogue Vol. 17, No 1, Spring 1996, 'Two Decades of Informal Sector Studies: Lessons Learned' United Nations Centre for Regional Development, Nagoya, Japan, pp 70-93.

- The IS is increasingly relied upon by job seekers belonging to the prime working age group and/or those who are either retrenched or can not gain access to the FS for a variety of reasons;
- The IS can respond quickly to newly created market opportunities during rapid economic growth; and
- 4. The IS can also expand during economic stagnancy due to its capacity to reduce labour, machinery, and overhead costs;

According to Amin, the presence of IS activities along roads, in streets, lanes, pedestrian ways, and in and around the market places, slums and squatter settlements, and other residential areas creates serious management as well as environmental problems- making them more than simple eyesores. He suggested the urgent need for formulating innovative interventions that can maximize the positive impacts and minimizing the negative ones.

The evidence from Thailand and Indonesia suggests that IS can serve for developing entrepreneurs who could either move into primary stage of the FS or move to higher value-added activities within the IS. The movement of IS enterprises into higher value-added activities must have been accompanied by improvement in market access, availability of raw-material and capital, utilization of higher level skills and technologies, and improved organizational arrangements. Higher value-added production activities of IS were garments, leather goods, metal products, toys, artificial flowers, processed food, and jewelry.

In the case of Bangladesh, the IS continues to grow, such expansion seem to be taking place more at the level of marginal groups where the valueadded to low and the occupations often hazardous. Statistics shows that the adult literacy rates in Thailand, Indonesia, and Bangladesh were 93 percent, 88 percent, and 35 percent respectively. This shows that quality of human resources is an important factor in determining the propensity of the sector to move away from marginal activities and into more productive areas. However, formulating innovative interventions to integrate the IS, into the urban economy requires an in depth understanding of the dynamics of the transition of IS enterprises from low to higher value-added activities.

**Hussmanns, Ralf (2002)**<sup>14</sup>, has studied on various survey methods for data collection on informal sector. The main objective of this study is to explain about the various survey methods and their limitations which are used in data collection in informal sector.

In the past, it was often believed that informal sector units and their activities were un-measurable due to small size, high mobility and turnover, seasonal variations in business activity, clustering in specific areas, lack of recognizable features for identification/ location, lack of usable business records, possible reluctance to survey participation, etc.However, in present situation there are various methods have been developed to measure the various activities of informal sector. The most appropriate method always depends upon the measurement objectives pursued, which are determined by the data requirements of each country. There are various methods for surveying the informal sector rather than one single method only. In national practices, five surveys methods with their limitations are mentioned in this study. These methods are: labour force surveys or similar household surveys; establishment surveys; mixed household and enterprise surveys; informal sector modules attached to household surveys; integrated surveys etc.

All these methods have not used in same country. The different countries have used different methods which depend on national practices according to their needs, limitations and characteristics of informal sector activities of their countries. He has explained each of these survey methods with procedure, problems to apply, limitations of the method, and suggestions about each method. Due to senior statistician of ILO, he has raised the questions on data quality aspects in informal sector surveys. In view of the particular

<sup>&</sup>lt;sup>14</sup> Hussmanns, Ralf (2002) 'Informal Sector Surveys: Advantages and Limitations of Different Survey Methods and Survey Designs for the Data Collection' website <u>http://mospi.nic.in/inter-def.htm</u>

characteristics of the IS, special attention to data quality aspects should be paid when informal sector surveys are designed and conducted. A number of lessons have been learnt from the available survey experiences, which can be used to derive certain measures that are likely to be useful in order to reduce non-sampling errors and improve the quality of informal sector survey data. According to the nature of IS, single method or mixed method should be used to maintain the quality data.

In his view, no systematic evaluation of data quality has ever been made for any of the informal sector surveys conducted till now. This is an area of requiring a substantial amount of further work by national statistical agencies and international organizations.

**Jacques Charmes(1996)**<sup>15</sup> has presented a study entitled 'Progress in Measurement of Informal Sector Employment' is one of the important article of 'Regional Development Dialogue vol. 17, No.1, Spring 1996, Two Decades of Informal Sector Studies: Lessons Learned' .This study has based on secondary data of various countries of informal sector of North Africa, Latin America and Middle East, have used between the period of 1975 to 1993 from different sources.

The informal sector was internationally defined as a concept of labour force by the XVth International Conference of Labour Statisticians held in Geneva in 1993. As soon as the early 70s, it was up to the International Labour Office to propose the first multi criteria definition of the notion in its famous report on Kenya for the WEP in 1972. In the beginning the term 'informal sector' was surrounding by many controversies which had continued to influence economic and political thinking. It was thought that these activities would be reduced as a result of industrialization and modernization and disappear altogether ad hoc interventionist state policies. The financial crises faced by many developing countries, the effects of structural adjustment programmes, and the failure of the public sector to create the necessary number of jobs to

<sup>&</sup>lt;sup>15</sup> Nurul Amin, A.T.M.(ed.) 'Regional Development Dialogue vol. 17, No. 1, Spring 1996, Two Decades of Informal Sector Studies: Lessons Learned. 'Table no. 1 to 7 pp 23-27. Website: www.wiego.org/papers/informalref.html

absorb an increasing labour force the activities have not decreased. Indeed, they have been expanded, creating jobs more rapidly and effectively than the state ever did.

Charmes said that although the concept of IS has changed, this original content has remained firmly rooted. Indeed the three notions of unemployment, underemployment, and poverty overlap with the concept of the IS. The term continues to evoke an image of a set of heterogeneous activities.

Easy to entry; small scale activity, self – employment with a high proportion of family workers and apprentices little capital and equipment; labour – intensive technologies, low skills; low level of organization with no access to organize markets, formal credit education and training services and amenities; cheap provision of goods and services or provision of goods and services otherwise unavailability; low productivity and incomes according to some analytics, or, on the contrary, vary incomes that are notably higher than in the public sector, especially in the context of structural adjustment programmes. These are the main features emerging from more than two decades of IS surveys.

This article by Jacques Charmes presents an interesting overview of the efforts made during the fast two or three decades to measure employment in informal sector. In particular, it presents a concise overview of the resolution on employment in the IS as adopted by the fifteenth ICLS and the practical implementation. On survey methods for measuring IS employment and production, it is indicated, two different approaches: the household survey and enterprises survey and also combination of two methods may be an option. Although, the uses of household surveys are recommended by ICLS, Charmes leans to the conviction that enterprises surveys are more suitable in this regard.

The result of the study, therefore, challenges the abortion that the household surveys would be less suitable for the collection of more detailed information on enterprises, such as use of capital, the approach can be made through households because in the IS, a direct link exits between the household and

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enterprise on the basis of the information from the household. A sample frame can be established concerning the various industries and activities. The detailed information however cannot be collected from the proxy respondents and attempts should be made to collect data from the proprietor and preferably at the work site.

In the past population census or labour force surveys had been used as a indirect method to measure the information collection for IS. But recently various survey methods have been used to measure IS activities. No single ideal methodology may be universally recommended or applied. Topic – Impediments and growth dynamics of urban informal sector

M.Reddy, V.Naidu and M.Mohanty (2001)<sup>16</sup> have studied urban informal sector in Fiji. The main objectives were: to identify types, nature, number and size of urban informal sector activities, and to examine impediments (regulatory, financial, knowledge and skills, management, etc.) for the growth of urban informal sector activities. To fulfill these objectives primary and secondary data had been used. In Fiji, there has been no systematic study of urban informal sector activities. The study was conducted using a structured questionnaire. Primary data was collected in Suva, Lautoka and Labasa. Due to financial and time constraints, it was not possible to do this study for all urban centers in Fiji. For secondary data, each of this city/town council was taken to examine the regulatory practices of 150 informal sector activities were surveyed. This research was concentrated on age, education, ethnicity, marital status, household size, sex, types of activities (shoe shine work, wheel barrow transport activity, vegetable vender, carrier operator, fish seller, prawn seller, informal sector activity, source of material and location, Residential location before & after the activity, type of house, tap house availability, tap water, toilet type expenditure patterns of Household income categories).

They concluded that informal sector plays an important role in Urban Poverty alleviation through employment and income generation. Promotion of informal

<sup>&</sup>lt;sup>16</sup> M.Reddy, V.Naidu and M.Mohanty (2001), 'A case study of Fiji's Urban Informal Sector, University of the South Pacific, Suva, Fiji, 2001 This paper available from website: www.usp.ac.fj/index.php?id=piasdq\_mohanty

and small business activities have been as strategies in poverty alleviation and development in developing countries. The small and informal business housemen face difficulties that are caused by the absence to develop businesses, lack of appropriate skills to operate a business. This study has focused on urban informal sector and not explained about rural informal sector which is most important in developing countries.

**Merrick, Thomas W., (1976)**<sup>17</sup> has study on title 'Employment and Earnings in the Informal Sector in Brazil: the case of Belo Horizonte'. This study has focused on informal employment in the rapidly growing urban labour market of Belo Horizote, in Brazil. A sample survey of the metropolitan area labour force is conducted in November 1972 and especial effort was put into the developing of the questionnaire to insure that would yield information on labour market structure and traditional employment. A limited occupational life history was taken for 2445 heads of household, and detailed current employment information was bought for the remaining member of the work force, in the sample. In addition to the survey data special laudation's of the 1970, population census data on migration and labour force participation for metropolitan area of Belo, Horzonte were obtained. These data permitted only an indirect measurement of informal activities.

The study shows that age, sex and position in the household are well- know determinants of participation in the labour force and also closely associated with informal employment. Household groups were specified in the data (1) Head of household (2) Spouses of heads of household (3) Others members of household and (4) Domestic servants. The result shows that the two groups of males (Head and Others), head of households with a higher percentage of employment in all age categories and a lower percentage in informal activities except for the youngest and oldest workers. There is basically negative correlation between percentage of active and percentage of informal sector which suggest that informal sector functions as a buffer area for groups like

<sup>&</sup>lt;sup>17</sup> Merrick, Thomas W., Employment and Earning in the Informal Sector in Brazil: The case of Belo Horizonte, the Journal of Developing Areas, Volume 10, Number 3, April 1976, pp 339-353

young and old whose participation in the labour force depends upon whether they are willing to accept an informal job rather than go unemployed. Female heads are most active and have the highest percentage in the informal sector Informal sector employment is more significant in providing earning opportunities for members of lower income families than other families. According to income group classification, the percentage of working are lower compare to other income categories in the poor families for male head and other members and female spouses and other members. Informal employment is higher among the poor and decreases for all household groups with two exceptions as economic status improves. Similarly another table shows that there is a significance difference between earning before and after the informal activity. Age of arrival, length of residence in informal activity has also studied in this research. The result shows that informal sector participation on the employment and proportion on the informal sector.

Important differentials in average earning are associated with informal employment through difficulties in disentangling the interaction of variables like age, sex and education in this process. Earning function estimated by these data suggest that human capital endowments a structural factor interact in the determination of earning both the formal sector and informal sector. Informal sector provides much of the employment and earning opportunities available to the lowest socio income stratum.

**Shrestha, Urmila and Meena Shrestha (1998)**<sup>18</sup>, have presented the position of Nepalese women in labour market participation in informal sector. This study has based on secondary data from censuses, central bureau of statistics, and others. Since a long time women are being involved in most of the informal activities. Such ventures are being operated in individual capacity or done by family members or employing a few labour with low capital

<sup>&</sup>lt;sup>18</sup> Shrestha Urmila and Meena Shrestha (1998), Women in Informal Sector in Nepal, paper presented at a national seminar on Status of Informal Sector Workers, the Other Side of Economy in Nepal, organized by Centre for Economic and Technical Studies in corporation with Friedrich Ebert Stiftung, September 7 and 8, 1998, pp 1-9.

investment, low technology and skill. In this business the returns are low and irregular production, low income and little exposure in the society. Through Nepalese women are being involved in such unorganized business sector, the data is not available regarding the actual number of women being absorbed by this sector but it can assumed that the number of women might be extensive due to the characteristics of informal sector.

It is only recently that Nepalese women have started coming forward as entrepreneurs and producers running micro cottage and small type of business (the fixed capital investment up to NRs. 200,000.00) enterprises such as different types of handicrafts, weaving and textile, readymade garments, carpet making work, cloth painting, beauty parlors, banking tourisms, consultancy and engineering, health services, departmental stores, constructions, etc.

According to the 'National Women Entrepreneur Directors- 1997' prepared and published by Women Entrepreneurs Development Committee, Kathmandu, Nepalese women were being engaged in about fifty varieties of enterprises. About ninety percent of such activities were in the informal sector. As per the Centre for Economic and Technical Studies, the estimated informal sector activities in Nepal represent as high as ninety percent of the total economic activity (including agriculture activities) of the country.

Since the women are poor and backward and they just started to come forward in the economic activities, it is the main responsibility of the planners of both governmental and non-governmental organizations to innovate and provide desirable programmes with decent objectives for sustainable development of women for enhancing women's participation both in informal and formal labour market.

**Dr. Bajracharya R. Hridaya (1998)**<sup>19</sup> has examined the various legislation and law enforcement, the commitments of government and initiatives taken

<sup>&</sup>lt;sup>19</sup> Dr. Bajracharya R. Harindra (1998); Child Labour In Informal sector, paper presented at a national seminar on Status of Informal Sector Workers, the Other Side of Economy in Nepal, organized by Centre for Economic and Technical Studies in corporation with Friedrich Ebert Stiftung, September 7 and 8, 1998, pp 1-9.

and suggestions for improvement against the use of child labour informal sector in Nepal. Finally the work areas where the child labour is involved are in agriculture fodder, firewood collection, tending livestock, plantation and harvesting etc. in domestic work and cottage industry. Fetching water, helping in cooking and cleaning, helping in the family occupations, basket making, pottery sewing, ironsmith and weaving for home utilities in trade and service. Domestic servants, hotel and restaurant boys, tempo / bus conductors, porters, shop assistants, working at petrol pump, rag picking, street vending, shoe – shine boys in manufacturing industry, working in carpet factory, beedi making and in small scale textiles garments work. In construction working in construction site and road building and other serious exploitative forms, prostitution street children, trafficked children, etc but the areas are not available still now. However, according to census of 1991, among the total children between 10 - 14 age group, 23 percent of the children and 28 percent of this age group of girls were the child labour in various area.

Similarly, the visible consequence about the child labour was estimated 5000 street children in dept bondage, and nearly 25000 child prostitutes not counting those who are regularly being trafficked into India for the same purpose.

In Nepal the Labour Act (1991), children's Act (1992), civil law code (1963), foreign Employment Act (1985) Human Trafficking Act (1986)etc. acts and laws are made against the child labour but these are limited to registered enterprises i . e., limited only in formal sector.

Nepal is a signatory to the UN convention on the right of child (1989) and emphasizes the elimination and exploitation of children. According to these international commitment at various levels – world, regional and sub – regional level, Nepal Government has taken level policy initiatives to address the problem. The government policy in this regard is to encourage and provide facilities to NGOs and INGO involved in such programs implementation of the policies into practice is rather a difficult task in Nepal due to lack of skilled human resources as well as lack of fund to support, lack

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of awareness and need for empowerment in education. Moreover lastly, the problem of child labour in Nepal has many dimensions – the social traditional dimension, the social and economic dimension, new organized as well as unorganized industrial activities and sheer exploitation of children because of their vulnerability. Elimination of child labour resources, multidimensional approach in an integrated way has been included. However, the brevity of presentation and some of the possible dimensions are: education, social reform, community mobilization, co-ordination and partnership.

**Dr. B.N Thakur (1998)**<sup>20</sup> examined through this that cooperative plays a positive role in the development of informal sector in Nepal. He assumed that contributes significantly to the national GNP and in employment opportunities, yet no authentic data are not available on this sector. By and large, the informal sector operates on an individual basis and labour force employed in this sector is almost unskilled, semi – skilled and mostly dependent on traditional and hereditary indigenous technology.

The goldsmiths have grouped themselves cooperative society and are operating successfully in the sub – metropolitan city of Lalitpur on the same pattern the handicraft development cooperative society has also been formed in Bhaktapur municipality for the promotion and woodcrafts and other related items.

However, the socio – economic conditions of the people involved in such cooperatives are quite different as compared to millions of people trading in the informal sector in the rural areas of the country. The mission of the cooperative development program had been shown in the following points:

- 1. Awareness of informal sector workers will be facilitated.
- 2. Implementation of training and skill development program will be more easy.

<sup>&</sup>lt;sup>20</sup> Thakur B.N (1998), 'The role of co – operative in the Development of Informal sector in Nepal'. paper presented at a national seminar on Status of Informal Sector Workers, the Other Side of Economy in Nepal, organized by Centre for Economic and Technical Studies in corporation with Friedrich Ebert Stiftung, September 7 and 8, 1998,

- 3. Marketing of the products and input will be effective.
- 4. Credit institution, like commercial banks and other banking institutions may enter this sector with their financial package, and
- 5. With the successful operation of the cooperative society in the informal sector, the participating member will draw strength and derive major benefits both from the society and the government.

Major constraints of the cooperatives in the informal sector are connected with their heterogeneity, various skilled based federations could be developed at the district and the rational level. Since the cooperative development program in the informal sector is a complex issue, it requires modalities and other relevant aspects in this sector.

**Chong Deberto and Mark Grandstein (2004)**<sup>21</sup>, have presented in theory and evidence on the determinants of the size of the informal sector. They used the secondary data of various countries from World Bank, and IMF. They purposed a simple theoretical model in which the informal sector's size was negatively related to institutional quality and positively related to income inequality. These predictions were then empirically validated using different proxies of the informal sector, income inequality and institutional quality. The results were shown to be robust with respect to a variety of economic specifications.

**Corbacho Ana (2000)**<sup>22</sup> has estimated labour force participation equations and informal versus formal sector participation equation in the Central American countries of Honduras, Costa Rica, El Salvador, and Nicaragua using most recent Household Surveys available for each country. The main goal is to establish patterns of labor force participation and formal versus

<sup>&</sup>lt;sup>21</sup> Chong Deberto and Mark Grandstein (2004), Inequality, Institutions and Informality, Inter – American Development Bank, working paper no 516, . 1300, New York, Avenue, N.W. Washington DC 20577 Website: <u>http://www.freewebtown.com/nhatquanglan/index.html</u>

<sup>&</sup>lt;sup>22</sup> Corbacho Ana (2000), Labour Market in Central America: Informal versus Formal Sectors , Development Discussion paper no 747, February 2000, Harvard University website <u>http://www2.dbd.puc-rio.br/pergamum/tesesabertas/0210688\_04\_postextual.pdf</u>

informal sector participation to establish key differences and policy implications.

In Costa Rica, the total number of sample households was 11533 in which 60 percent from urban areas and 40 percent from rural areas were taken. The survey was taken in 1996. El Salvador is divided 14 political-administrative departments, and subdivided in 262 'municipos', Each 'municipo' is divided in an urban and a rural area. The survey had covered a total of 1235484 households and the survey was taken in 1996. In Honduras, the survey was taken in 1996. The sample survey had covered both rural and urban areas of whole country. The total number of households in survey was 7200.Similarly, in Nicaragua, the sample size in survey was 4200 households. It had covered both rural and urban areas.

Results from labor force participation equations show that differences across countries were not very significant. The composition of the informal sector, however, had a more heterogeneous character. The two most popular definitions of the informal sector have been applied for data permitting. There are at least two competing views. Some emphasize the small-scale characteristic of the informal sector, being composed of those workers who perform non-technical or non-professional activities in firms of five employees or less (size view). Others emphasize the unregulated characteristic of the informal sector,

Composed of those workers who do not have social security insurance (social coverage view) According to the size definition, Costa Rica had the smallest percentage of employed workers in the informal labor market, 50.7 percent. El Salvador followed closely with 51.1 percent then Nicaragua with 53.3 percent and Honduras with the largest incidence of informality, 66.1 percent. The size of the informal sector increases for both Nicaragua and El Salvador, 70 percent versus 53 percent and 78 percent versus 51 percent respectively according to the social security coverage view The gender composition also shifted so that men and women were almost equally represented in the informal sector. These results, although not unexpected, made evident the

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importance of the applied definition: policy implications differ under the two views. Under the social security coverage definition, hourly wages and level of education summary statistics followed similar trends as when the informal labor was defined by firm size. Hourly wages were higher in the formal sector and higher for men. Women who participate in the labor market, however, were more educated. Also, the informal sector was composed of a less educated pool of workers than the formal sector.

Under the size definition, the three common features for all four countries were the higher participation of women, the least educated and the young in the informal sector. When the remainder of the characteristics was taken into account, each country had distinguishing results. Under the social security coverage definition, applied to Nicaragua and El Salvador only, most of the results coincided with those that fall under the alternative definition. However, in this last set of estimations people older than 50 years of age had lower chances of participating in the informal labor markets than people younger than 50 years, though this did not seem to matter under the size definition.

**'Delhi Group' (1999)**<sup>23</sup> is also known as 'Export Group' on Informal Sector Statistics, has presented a paper on 'Measurement of Informal Sector '–The Indian experience. The Group recognized that the national definitions of the informal sector cannot be fully harmonized at present as the informal sector manifests itself in different ways in different countries. However, in order to enhance the international comparability of informal sector statistics, the international agencies should disseminate data for the sub-set of the informal sector which can be defined uniformly as recommended below:

- (I) All countries use the criteria of legal organization (Un-incorporated enterprises), of type of accounts (complete set of accounts) and of product destination (at least some market output)
- (ii) Specification of the employment size limit of the enterprise in national definition of the informal sector is left to the country's discretion. For

<sup>&</sup>lt;sup>23</sup> Paper presented in the third meeting of 'Export Group' at New Delhi during 17-19 May, 1999. Website: www.unescap.org/STAT/apex/2/APEX2\_S.5\_India-SNA-informal\_presentation.pdf

international reporting, however, countries should provide figures separately for enterprises with less than five employees. In the case of multiple establishment enterprises, the size limit should apply to the largest establishment.

- (iii) Countries using the employment size criteria provide dis-aggregated figures for enterprises, which are not registered, as well as for enterprises which are registered.
- (iv) Countries using the criterion of non-registration provide dis-aggregated figures for enterprises with less than five employees as well as for enterprises with five and more employees.

These recommendations clearly bring out the fact that the definitions need not be the same in every country though data have to be tabulated for specific segments for the purpose of international comparisons.

In Indian system of National Accounts statistics, the terms organized and unorganised sectors are used from the point of view of collection of statistics. The organized sector comprises enterprises for which the statistics are available regularly from the budget documents, annual reports in the case of Public Sector and through Annual Survey of Industries in case of registered manufacturing. On the other hand, the unorganized sector refers to those enterprises whose collection of data is not regulated under any legal provision or which do not maintain any regular accounts. The unorganised manufacturing sector consists of all unincorporated proprietary and partnership enterprises, along with enterprises owned by co-operative societies, trusts, and private and public limited companies.

National Sample Survey Organisation (NSSO) has conducted the first ever nation wide survey on informal non-agricultural enterprises, during July 1999 -June 2000. In this survey, all unincorporated proprietary and partnership enterprises have been defined as informal sector enterprises. This definition differs from the concept of unorganised sector. In the unorganised sector, in addition to the proprietary or partnership enterprises, co-operative societies,

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trusts, private and public limited companies are also covered. Thus informal sector can therefore be considered as a subset of the unorganised sector.

The survey covered activities of manufacturing, repair services, wholesale trade, retail trade, hotel, restaurant, transport, health, education, communication, business, legal and personal services.

The survey commenced on 1<sup>st</sup> July 1999 and continued up to 30<sup>th</sup> June 2000. The entire survey period is divided into four sub-rounds of three months duration each.

The Indian experience clearly indicates that informal sector enterprises can be identified and the impact of the sector on the economy can be measured through large scale sample surveys. A household-cum-enterprise survey approach is a promising survey method for capturing the informal sector enterprises in countries like India.

The amplification of listing schedule with items of information, which will enable the field investigators to probe all the economic activities of the households, would lead to better identification of the units although such a procedure increases the time taken for the field work. Organising field work by deploying teams of field investigators and supervisors would be useful in improving quality of field work.

**Jhabwala, Renana (1999)**<sup>24</sup> has presented a paper entitled, 'Definition and Measurement of the informal Sector' referring to both the aspects of informal sector, viz., definition and measurement. She has emphasized that the issues of definition and measurement cannot be separated from each other but have to go together. She pointed out that the definition of informal sector given by 15<sup>th</sup> ICLS/1993 SNA is biased towards estimating the contribution of informal sector in national income through Enterprise approach where in a big chunk of workers like home based workers, woman agriculture workers, street venders and the informal workers in the formal sectors get left out and remains unaccounted from the purview of any estimation procedure and tend to

<sup>&</sup>lt;sup>24</sup> Jhabwala Renana (1999), Definition and Measurement of the informal Sector, (Paper presented in the third meeting of 'Export Group' at New Delhi during 17-19 May, 1999) website: <u>http://mospi.nic.in/def\_measure.htm</u>

become invisible. She advocated a household approach rather than the enterprise approach to capture the informal sector – for the purpose of measuring its size. The paper presents a categorisation scheme to capture the enterprises and workers of the informal sector in rural areas. The approach suggested for capturing the informal sector comprised first finding the informal sector workers within the households through household survey and then tracking down enterprises through these workers. This would ensure capturing of both the enterprise as well as the workers.

**Kulshreshtha, A.C. and Gulab Singh (1999)**<sup>25</sup> had presented the paper 'On Contribution of Informal Sector in Indian Economy' in the Third Meeting of 'Export Group' at New Delhi during 17-19 May 1999. They briefly survey the definition and coverage of the informal sector. Definition and coverage of unorganised segments of the Indian Economy have also been discussed as the authors mainly studied the informal sector characteristics by using the available data on these segments. In order to examine the size of the informal sector in the Indian economy, the working force in Organised Sectors are subtracted from the corresponding working force estimates for the various industrial sectors of the total economy obtained by using Census/ National Sample Survey Household Employment and Unemployment Survey results for the year 1993-94. Also the contributions of the informal sector to the value addition through the estimates of gross domestic product of unorganized segments of various economic activities have been examined for the years 1993-94 and 1996-97.

**Ajayi, O. O. and O. O. Akanji (1999)**<sup>26</sup> had presented the paper entitled 'The Nigeria's experience of the informal sector survey: The methodology and the issue of non-sampling errors' on the experience of the Informal Sector Survey (October 1998-March, 1999).

<sup>&</sup>lt;sup>25</sup> Dr. Kulshrestha A.C. and Dr. Gulab Singh(1999), 'On Contribution of Informal Sector in Indian Economy', New Delhi p 15 (Paper presented in the third meeting of 'Export Group' at New Delhi during 17-19 May 1999) (website: <u>http://mospi.nic.in/india\_economy.html</u>)

<sup>&</sup>lt;sup>26</sup> Ajayi, O. O and O.O. Akanji (1999), 'The Nigeria's experience of the informal sector survey: the methodology and the issue of non-sampling errors', (Paper presented in the third meeting of 'Export' Group' at New Delhi during 17-19 May, 1999) (website: <u>http://mospi.nic.in/exp\_nigeria.html</u>).

The paper designed to measure the size, structure, and employment generation, contribution to the GDP and linkages to its formal counterpart. The informal sector activity has been defined as that which operates without binding official regulations (but it may or may not regulate itself internally) as well as one which operates under official regulations that do not compel rendition of official returns on its operations or production process. This integrated survey illustrates some of the interesting methodological possibilities of mixed survey arising from the definitional and conceptual framework of informal sector coverage in Nigeria. It brought about nonsampling errors which were dealt with and which give an insight into the representational strength of the survey. It also envisages the increasing need for several layers of supervision to ensure good quality data from the field. The survey on informal sector has confirmed that in Nigeria, households are the most potent points of entry for such large surveys. Nearly all the workers / manufacturers belong to a household and the approach has solved the problem of coverage tremendously.

The paper entitled 'Evolution of sampling frame for surveys in unorganized sectors of Indian economy'(1999) <sup>27</sup>started with the recommendation of the first National Income Committee suggesting conduct of large-scale sample surveys on various sectors of Indian economy. It highlights the subjects covered by the National Sample Survey (NSS) Organisation in various rounds starting with the first round of NSS conducted during October 1950 to March 1951. The paper gave an overview of how the sampling frame evolved over the years for selection of samples in different stages of sampling. It discusses the data contents of various types of sampling frames (viz., list of villages/enumeration blocks for Population Census as well as Economic Census and list of Urban Frame Survey (UFS) blocks) for selection of sample first stage units (FSUs). It also discussed the procedure of stratification and selection of sample first stage units based on

<sup>&</sup>lt;sup>27</sup> The titled on 'Evolution of sampling frame for surveys in unorganised sectors of Indian economy' (country paper from India) is presented in the third meeting of 'Export Group' at New Delhi during 17-19 May, 1999. website: <u>http://mospi.nic.in/sampling\_frames.html</u>

the information in the sampling frames. The paper described in detail the procedure of listing of the households/enterprises, stratifying them as per the information collected in the listing stage and the method of their selection. For illustration, it gives the sampling design of some important surveys in the unorganised sector with special reference to the NSS 55<sup>th</sup> round survey scheduled to commence from July 1999. The NSS 55<sup>th</sup> round survey is an integrated survey on household consumer expenditure, employment-unemployment and informal non-agricultural enterprises. Different schedules being canvassed in the 55<sup>th</sup> round of NSS were also included in the paper.

For enhancing the utility of the sampling frame of first stage units, the paper suggested the following:

- Collecting information on number of enterprises and employment by broad group of non-agricultural activities for each UFS block for the purpose of effective stratification and selection of sample on first stage units in the surveys on unorganised sector.
- Forming UFS (Urban Frame Survey) blocks with permanent boundaries.
- Segmenting large villages of the country into a specified number of smaller segments (i.e. hamlet-groups) with permanent boundaries
- Regular updating of sampling frames FSUs (First Stage Units)

Preparing a list of big establishments in the unorganised sector (i.e., a Business Register) for collection of data on a census basis and thus excluding them from the coverage of the surveys in unorganised sector.

**Dr. Herman, B. (1999)**<sup>28</sup> In his presentation on 'Labour Data in Latin America' advocated for heading towards getting on with the job, namely, the delivery of time-series on Latin American labour force statistics split into formal and informal. These time-series are to be based on regularly administered surveys (preferably annual) which are of national coverage and structured according

<sup>&</sup>lt;sup>28</sup> Dr. Herman, B.(1999), 'Labour Data in Latin America' (Paper presented in the third meeting of 'Export Group' at New Delhi during 17-19 May, 1999). Website: <u>www.mospi.gov.in/labour\_data.html</u>

to methodologies consistent over time and across countries in accordance with the 15<sup>th</sup> ICLS. The author emphasised the mobilisation of stakeholders in order to achieve that. For this purpose, it was suggested that the statistical institutions should maintain permanent cells/units for regular contacts between users and producers of data.

**Negrete, Rodrigo (1999)**<sup>29</sup>, had presented the paper entitled 'Surveys concerning informal sector and their use by national accounts systems: some points for discussion'. In his paper he raise the question of sample weighting based on population weights for estimation of economic variables while handling informal mixed household-enterprise surveys in relation to the data requirements of National Accounts. The problem might be real if the SNA scheme is based on Industries Sectors but might become fictitious when working under Institutional Sectors. The author discussed the problem of non-response bias in the informal sector surveys under the institutional framework of SNA. Based on the Mexican experience, the author points out that the pattern of non-response is not random but is higher in the upper layers of informal sector and asserts that a conceptual analysis is essential for non-response. Mixed surveys provide such a conceptual analysis.

**Dr. Unni, Jeemol (1999)**<sup>30</sup> in her paper 'Informal Sector Activities in Rural India' presented results of a methodological study conducted to estimate the size of the informal sector in the Ahmedabad city. She explained that Linked Household-cum-Enterprise Survey approach has been adopted to collect the information on the informal sector. As enterprise survey based approach tends to miss out certain categories of single person own account enterprise. The approach comprised conducting a detailed probe through a household survey to identify informal sector activities of men and women, some of which might not have been reported. All the enterprises so obtained were then

<sup>&</sup>lt;sup>29</sup> Negrete, Rodrigo (1999), 'Surveys concerning informal sector and their use by national accounts systems: some points for discussion' (Paper presented in the third meeting of 'Export Group' at New Delhi during 17-19 May, 1999).website: <u>http://mospi.nic.in/operative\_app.htm</u>

<sup>&</sup>lt;sup>30</sup> Dr. Unni, Jeemol (1999), 'Informal Sector Activities in Rural India', (Paper presented in the third meeting of 'Export Group' at New Delhi during 17-19 May, 1999) website: <u>http://mospi.nic.in/rural\_india.html</u>

included in the enterprise survey enabling estimation of the contribution of specific groups of informal sector workers in terms of GDP.

**Ferran, Lourdes (1999)**<sup>31</sup> prepared a paper on 'Note on Value Added in Informal Sector' and presented by Dr. A.C. Kulshreshtha, noted that the estimation of value added by this sector is extremely complex because of the specific circumstances and conditions of the informal sector. Especially its definition (as there is no clear cut demarcation of the informal sector), its dispersion of informal sector units, and the characteristics of those who work in it, conspicuously their unpreparedness and resistance to offer information. The author has advised that national accounts of the countries should have an entry of value added by the informal sector. The same could be obtained by adopting proper survey techniques. The discussion on these papers presented centered round classification problems i.e. distinction between 'Informal Sector' and 'Unorganised Sector' and ways and means to approach the respondents for getting to the desired information through appropriate survey techniques.

**ILO(1999)**<sup>32</sup>, In the earlier meeting of the group it was recommended that an inventory of the existing country practices to define the informal sector or the related concept be prepared entitled ' Enhancing the international comparability of informal sector statistics a review of national definitions of the informal sector and a proposal for harmonised definition for international reporting' and presented by Mrs. Brigitte du Jeu (ILO), responds to this, as it presents a synoptic table of the country practices by continents highlighting (i) the mandatory criteria from the Resolution concerning statistics of employment in the informal sector adopted by the 15<sup>th</sup> ICLS, (ii) the scope and treatment of special cases of workers and (iii) the other criteria applied by the countries. In view of enhancing the international

<sup>&</sup>lt;sup>31</sup> Ferran, Lourdes (1999), ' Note on Value Added in Informal Sector', (Paper presented in the third meeting of 'Export Group' at New Delhi during 17-19 May, 1999). <u>www.http://mospi.nic.in/value\_added.html</u>

<sup>&</sup>lt;sup>32</sup> ILO (1999), ' Enhancing the international comparability of informal sector statistics a review of national definitions of the informal sector and a proposal for harmonised definition for international reporting', (Paper presented in the third meeting of 'Export Group' at New Delhi during 17-19 May, 1999).website: www.mospi.gov.in/report\_6.htm

comparability of informal sector statistics from the country practices, a framework has been proposed in the paper to agree on a harmonised definition, based on the idea of finding the largest common denominator, for international reporting. In fact the framework proposed in the paper for the international reporting of informal sector statistics provided the basis for discussion on the subject and helped formulating

**Guitierrez, Tatiana Gonzalez & Mr. Oscal Franco (Colombia)(1999)**<sup>33</sup> has prepared a paper entitled 'Definition of the informal sector and classification proposal' and presented it by Mr. Ralf Hussmanns (ILO), proposed a statistical system allowing to identify various employment modes (paid employment and independent employment), particularly for own-account workers in the informal sector ensuring compatibility of the employment statistics with National Accounts System. Five sub-classifications were proposed for the own-account worker's group. The 'typical own-account' is the one having clearly an independent employment type. The other four modes of 'own-account' worker show elements of both, paid employment and independent employment. The sub-classification is to be done through response to questions obtained from the operator of the informal sector. Results of the Bogota Informal Sector Survey of 1995 have been presented to justify the proposal.

**Negrete,Rodrigo (1999)**<sup>34</sup> had studied entitled 'What is to be expected from an operative approach to the informal sector'. He had attempted to unveil the issues associated with defining "informal" both at operative and conceptual levels. He emphasized that a tactical approach to identify the informal sector by means of a survey must guarantee exhaustiveness in relation to the universe that is being sought to be estimated. At the same time, this approach by no means can ever be taken for identification of the said universe. During

<sup>&</sup>lt;sup>33</sup> Guitierrez, Tatiana Gonzalez & Mr. Oscal Franco (Colombia)(1999), 'Definition of the informal sector and classification proposal' (Paper presented in the third meeting of 'Export Group' at New Delhi during 17-19 May, 1999). <u>www.mospi.gov.in/class\_prop.html</u>

<sup>&</sup>lt;sup>34</sup> Negrete Rodrigo (1999), 'What is to be expected from an operative approach to the informal sector' (Paper presented in the third meeting of 'Export Group' at New Delhi during 17-19 May, 1999). Website: <u>http://mospi.nic.in/third\_agenda.html</u>

the course of discussions, it tried to bring out a clear distinction between the meaning of a definition and a description to the informal sector. It justified that the definition is an inescapable condition, whereas a description on the other hand covers only the elements correlated to the phenomenon of informal sector to a reasonable degree. From the operative perspective, the paper details a scheme in which for each criterion of exhaustiveness, key concepts, and for analytical purposes, the topics and aspects that are to be looked forward, in an inquiry directed towards the informal sector. As the end, the paper also attempted to exemplify the issues, to the extent possible, by taking an example obtained from the Micro-business Survey in Mexico in 1996. It emphasized the need to engage in finding a proposition in order to start working with it as a common language to be used in international forums.

Abbasi, Zia (1999)<sup>35</sup> presented his paper on 'Informal Sector Statistics: Australian views on the International Definition'. The main focus of his presentation was on the need to operationalise and harmonise the definition of the informal sector in order to assist national statistical agencies in developing their data collection strategies and to facilitate more meaningful international comparison of the contribution of the informal sector to national employment, income generation, capital formation and GDP. Mr. Abbasi noted that the definition should reflect the needs of policy makers rather than being based on statistical measurement boundaries (e.g. unrecorded sector) or be compared with the black economy. Mr. Abbasi discussed the usefulness of the non-registration and employment size criterion in determining the scope of the sector. He noted that generally speaking employment size provided more effective measure than non-registration for harmonisation purposes. This is because the latter criterion is subjective and is not uniform across reporting countries. He also indicated the need to resolve scope, issues relating to agriculture, rural areas, professional and technical services,

<sup>&</sup>lt;sup>35</sup> Abbasi, Zia (1999), ' informal Sector Statistics: Australian views on the International Definition', (Paper presented in the third meeting of 'Export Group' at New Delhi during 17-19 May, 1999) <u>http://mospi.nic.in/australian\_view.html</u>

outworkers and domestic paid workers. In conclusion, he stressed the need for the Delhi Group to reach agreement on the harmonised definition.

**Norman V.Loayza(1999)**<sup>36</sup> has presented the view that the informal economy arises when excessive taxes and regulations are imposed by governments that lack the capability to enforce compliance. The determinants and effects of the informal sector are studied in an endogenous growth model whose production technology depends essentially on congestible public services. The model concludes that changes, both in policy parameters and the quality of government institutions, promote an increase in the relative size of the informal economy will also generate a reduction in the rate of economic growth.

The paper then uses data from Latin American countries in the early 1990s to test some of the implications of the model and to provide estimates for the size of the informal sector throughout these countries. The empirical approach consists of identifying the size of the informal sector to a latent variable for which multiple causes and multiple indicators exist. The size of the informal sector is found to depend positively on proxies for tax burden and labormarket restrictions, and negatively on a proxy for the quality of government institutions. Furthermore, the empirical results suggest that an increase in the size of the informal sector negatively affects growth by, first, reducing the availability of public services for everyone in the economy, and, second, increasing the number of activities that use some of the existing public service less efficiently or not at all.

Andrew Henley, G. Reza Arabsheibani, and Francisco G. Carneiro (2006)<sup>37</sup> have examined on defining and measuring the informal sector. A range of alternative empirical definitions of the informal activity has been employed in the literature. Choice of definition is often dictated by data

<sup>&</sup>lt;sup>36</sup> Norman V.Loayza (1999), 'The economics of the informal sector: a simple model and some empirical evidence from Latin America' World Bank , Washington, D.C. 20433, USA, 8 December 1999. website: www.worldbank.org/html/dec/Publications/Workpapers/WPS1700series/wps1727.pdf

<sup>&</sup>lt;sup>37</sup> Andrew Henley, G. Reza Arbsheibani, and Francisco G. Carneiro (2006), On Defining and Measuring the Informal Sector', Institute for the Study of Labour (IZA), Margard Ody, P.O. Box 7240, D-53072 Bonn Germany. Website: <u>http://deas.repec.org/p/wbk/wbrwps/3866.html</u>

Different definitions may imply very different conceptual availability. understandings of informality. This paper investigates the degree of congruence between three definitions of informality based on employment contract registration, on social security protection and the characteristics of the employer and employment using Brazilian household survey data for the period 1992 to 2001. 64 percent of the economically active are informal according to at least one definition, but only 40 percent are informal according to all three. Steady compositional changes have been taking place amongst informal workers, conditional on definition. Econometric analysis reveals that the conditional impact of particular factors (demographic, educational attainment, family circumstances) on the likelihood of informality varies considerably from one definition to another. Results suggest growing heterogeneity within the informal sector. Informal activity may be as much associated with entrepreneurial dynamism as with any desire to avoid costly contract registration and social protection. However there is no a priori reason for entrepreneurial activity to be unprotected. Results in the paper confirm this. Consequently definitions of informality based on occupation and employer size seem the most arbitrary in practice even if conceptually wellfounded.

**Dr. G., Raveendran and G.C., Manna (2002)**<sup>38</sup>, has examined the conceptual framework of informal employment in Indian context. This study has shown the steps of development in concept of 'Informal Sector' from ILO mission to Kenya (1972) to Fifth meeting of 'Delhi Group' A conceptual framework of informal employment was presented in the Fifth meeting of Delhi Group at New Delhi during 19-21 September 2001.It is, essentially a classification of jobs by status of employment of various categories of workers in different types of production units consisting of (a) formal sector enterprises (b) informal sector enterprises and (c) households which produce goods for their own final use and/or those employing domestic workers. They may be

<sup>&</sup>lt;sup>38</sup> Dr. G., Raveendran and G.C., Manna (2002), 'Testing the Conceptual Framework of Informal Employment – A Case Study of India' 7p , (Paper presented in the Sixth Meeting of 'Export Group' at Rio De Janeiro during 16-18 September 2002). <u>http://mospi.nic.in/informal\_paper\_2003\_02.htm</u>

performing the jobs as (a) own account workers (b) employers (c) contributing family workers, (d) employees or (e) member of producers' co-operatives. The status of employment may be formal or informal in many of the above categories. The framework, thus, recognizes informal employment in the formal sector, informal sector and households and consists of the following:

- Informal employment in Informal Enterprises (small un-registered or un-incorporated enterprises) including employers, employees, own account workers and unpaid family workers in informal enterprises
- Informal employment outside Informal Enterprises (formal enterprises, households or no fixed employer) including domestic workers, casual or day labourers, temporary or part-time workers, industrial outworkers and un-registered or undeclared workers.

The expanded concept of informal employment thus include all types of remunerative employment which are not recognized, regulated or protected by existing legal or regulatory frameworks as well as non-remunerative work undertaken in an income producing enterprise. These workers are typically deprived of secure work, worker's benefits, social protection and representation or voice. Informal employment relations consist of employees of informal enterprises as well as domestic workers without a regular contract, casual day labourers without a fixed employer, temporary workers who get work through an agency, part-time workers for a fixed employer, industrial outworkers for formal or informal firms and un-registered or undeclared workers.

For of both the labour force survey and informal sector survey in India , all unincorporated proprietary and partnership, non-agricultural enterprises were considered as informal sector enterprises. It included both own-account enterprises and other enterprises. The characteristics of informal sector were examined under the conceptual framework. The criteria of informal employment were as follows: a) casual nature of jobs, b) casual and

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temporary nature of jobs, and c) casual of nature of job and coverage under Provident Fund. The size of informal sector was differed in different criteria. Thus, the choice of criteria for the identification informal employment is a critical factor.

This study concludes that the most distinguishing feature of informal employment may vary from country to country and as such, it may not be possible to use the same criteria in every country. It produces that the harmonization of the definition of informal sector across all the countries is difficult and the criteria for the identification of informal employment may vary from country to country. The problem of deriving internationally comparable estimates of informal employment is a statistical challenge.

Prof. Schneider, Friedrich (2002)<sup>39</sup>, has studied on size and measurement of informal economy. In this paper, estimates of the size of the informal economy in 110 developing, transition and OECD countries are presented. The average size of the informal economy, as a percent of official GNI in the year 2000, in developing countries was 41percent, in transition countries was 38 percent and in OECD countries was 18 percent. The large burden of taxation and social security contributions combined with government regulations were the main determinants of the size of the informal economy. Although the different methods was provided a rather wide range of estimates, there is a common finding that the size of the informal economies for most transition and all investigated OECD countries has been growing over the recent decade. A similar finding can be made for the "informal labor market "which is attracting a growing attention due to high unemployment in European OECD countries. Furthermore, the results of this study show that an increasing burden of taxation and social security payments, combined with rising state regulatory activities, are the major driving forces for the size and growth of the informal economy. To conclude: Informal economies are a complex phenomenon, present to an important extent even in the

<sup>&</sup>lt;sup>39</sup> Schneider, Friedrich (2002), ' Size and Measurement of the Informal Economy in 110 Countries Around the World, The paper was presented at an Workshop of Australian National Tax Centre, ANU, Canberra, Australia, July 17, 2002, Website: friedrich.schneider@jku.at, <u>http://www.economics.uni-linz.ac.at</u>

industrialized and developed economies. People engage in informal economic activity for a variety of reasons, among most important, of which we can count are government actions, most notable taxation and regulation. With these two insights, goes a third, no less important one: a government aiming to decrease informal economic activity has to first and foremost analyze the complex and frequently contradictory relationships among consequences of its own policy decisions and determinants of the size of the informal economy.

Although, different methods were provided a rather wide range of estimates, there is a common finding that the size of the informal economies for most transition and all investigated OECD countries has been growing over the recent decade. A similar finding can be made for the "informal labor market" which is attracting a growing attention due to high unemployment in European OECD countries. Furthermore, the results of this study show that an increasing burden of taxation and social security payments, combined with rising state regulatory activities, are the major driving forces for the size and growth of the informal economy. Finally, Informal economies are complex phenomena, present to an important extent even in the industrialized and developed economies. People engage in informal economic activity for a variety of reasons, among most important, of which we can count are government actions, most notable taxation and regulation. With these two insights, goes a third, no less important one: a government aiming to decrease informal economic activity has to first and foremost analyze the complex and frequently contradictory relationships among consequences of its own policy decisions.

**Gërxhani (2004)**<sup>40</sup> in his literature review of the informal sector in developed and less developed countries states that the existence of the informal sector is quasi assured, with varying consequences. He found that "the literature on developed countries argues more towards the positive effect, while in less developed countries, a negative relationship appears to be more dominant".

<sup>&</sup>lt;sup>40</sup> Gerxhani K.,(2004), ' The informal sector in developed and less developed countries: A literature survey', Kluwer Academic Publishers, Public Choice, 2004 website: <u>http://citeseer.ist.psu.edu/514455.html</u>

He further states that there is a general agreement that the informal sector should be reduced in size or formalized in the long run.

**Sangeeta Pratap and Erwan Quintin**<sup>41</sup> have examined the informal sector in developing countries. The objectives of the study were: to document a set of robust empirical regularities with a satisfactory model of the informal sector should be consistent, to evaluate the extent to which current models of the informal sector are consistent with the existing empirical evidence, to discuss the difficulties associated with measuring informal sector wealth.

This study documents four key facts about informal economic activities: (1) the size of the informal sector varies greatly across nations; (2) this size is strongly correlated with economic development, the tax burden, and the rule of law; (3) the informal sector emphasizes small-scale, self-financed and unskilled labour intensive economic activities; and (4), while financial markets are generally segmented along formal/informal lines in developing nations there is no compelling evidence that this is true for labour markets. We review the existing theoretical literature on the informal sector and describe a simple model with a tradeoff between tax evasion and access to formal sources of outside finance which is consistent with much of the existing evidence. Finally, the study discusses the challenges associated with measuring informal sector assets.

**Yoshiaki Azuma and Herschel I. Grossman (2002)**<sup>42</sup>had studied on theory of informal sector. They concluded that in many countries, especially poor countries, a heavy burden of taxes, bribes, and bureaucratic hassles drives many producers into the informal sector. Is this situation explicable only as a consequence of either the ignorance or the ineptitude of the state authorities? On the contrary, this paper shows that we can attribute the existence of a large informal sector to the fact that, productive endowments contain

<sup>&</sup>lt;sup>41</sup> Sangeeta Pratap and Erwan Quintin (2006), The Informal Sector in Developing Countries, Output, Assets and Emplyment, Research paper no. 2006/130, November 2006, Helsinki, Finland website:www.wider.unu.edu/publications/working-papers/research-papers/2006/en\_GB/rp2006-130/

<sup>&</sup>lt;sup>42</sup> Yoshiaki Azuma and Herschel I Grossman (2002), 'A Theory of the Informal Sector' February 2002. Website: http://ideas.repec.org/p/nbr/nberwo/8823.html

important unobservable components but the state cannot adjust the amounts that it extracts from producers in the formal sector ac- cording to each producer's endowment. Given this fact they say that, if either the distribution of endowments is sufficiently in egalitarian or the production of private substitutes for public services is sufficiently easy, then the state would extract a large enough amount from producers in the formal sector that poorly endowed producers would choose to work in the informal sector. This result obtains both for a proprietary state, which maximizes its own net revenue, and for a hypothetical benevolent state, which would maximize the total net income of producers. But, they also focus that a proprietary state would create an informal sector for a larger set of combinations of parameter values than would a hypothetical benevolent state.

**S.V. Sethuraman** (1997)<sup>43</sup> has focused on significance role of urban informal sector to reduce the poverty and development. He added that, the urban informal sector is a major source of employment and income in developing countries and it is expanding. It has provided jobs to millions who would have been unemployed otherwise. Many people have improved their capabilities and incomes. They have acquired both physical and human capital. And yet the process of generating jobs and incomes in this sector remains inefficient. A majority of the poor is to be found in this sector. There are unmistakable signs that the pressure on this sector to absorb more labour will increase in the future. Such increase in employment is unlikely to be accompanied by increase in incomes unless drastic action is taken soon. In other words, there is every likelihood that urban poverty will rise in developing countries.

The accumulating experiences and knowledge suggest that it is possible to make the process more efficient and equitable. But it should imply surmounting a number of challenges including reforms in policies, regulations and institutions, leading to the integration of the sector with the mainstream development eventually. They are unlikely to come unless those in the

<sup>&</sup>lt;sup>43</sup> S.V. Sethuraman (1997), 'Urban Poverty and the Informal Sector- A Critical Assessment of Current Strategies', Development Policies Department, International Labour Office, Geneva, United Nations Development Programme New York, August 1997 website: <u>http://mpra.ub.uni-muenchen.de/1456/</u>

informal sector organize themselves and exert pressure on the authorities concerned. The prospects for reducing urban poverty in developing countries also depend critically on their overall economic performance. Without adequate economic growth development in the informal sector will only be evolutionary.

Adhikari, B.R. (1994)<sup>44</sup> has analyzed the employment opportunities of labourers in informal sector and formal sector activities with related to native and immigrants labourers in his Ph. D. dissertation. The overall objective of the study was to examine the impact of immigrants on the employment opportunities of the native labourers in both informal and formal sectors of Nepalese secondary and tertiary industries. This study was based on primary data. The main findings related to formal and informal sectors in the study were: the average age of immigrant labourer employed in informal sector was significantly higher than native labourers employed in the same sector. The average age of both types of labourers was higher than 30 yrs. The average literacy rate of native labourers was 72 percent whereas immigrants was 49 percent .The Average age of schooling by native labourers was 4.6 yrs, for immigrants was 2.6 yrs. The total numbers of employment opportunities in formal and informal sector were 44 percent and 87 percent respectively out of 100 each increment in the employment immigrant labourers. The magnitude of employed immigrant labour was found significantly greater in informal sector than in the native labourers in the formal sector. The average monthly earning and remittances by immigrant labourers employed in informal sector was significantly higher than in formal sector.

**Endo Tamaki (2001)**<sup>45</sup> analyzes the impacts of global economic restructuring on labour and life of low-income residents based on a case study at communities in Bangkok. Labour is a key interaction between macro economic restructuring and people's livelihood. Changes in 'job opportunities'

<sup>&</sup>lt;sup>44</sup> Adhikari, B.R.(1994), Ph D dissertation entitled ' Impact of Immigrants on the Employment Opportunities of Native Labourers in Nepal' Central Department of Economics, T.U. Kathmandu ,Nepal June 1994

<sup>&</sup>lt;sup>45</sup> Endo Tamaki, (2001)'Informal Economy in a globalizing world: perspectives of Slum Community in Bangkok, Center for Southeast Asian Studies, Kyto University, Kyoto 606-8501,Japan

of low-income residents will be examined through field survey on their life course and job experiences. Contrary to earlier discussions by the development studies, the informal economy has expanded as globalization has been proceeding. This phenomenon is not only observed in the Third World, but also widely seen in developed countries. As for Thailand, the informal sector that has been existence for a long time is still widely observed. At the same time, especially after economic crisis in 1997, the informalization of the formal sector is increasing. These two phenomena are now coexisting.

Informal sector is generally recognized as a social safety net for a crisis period. However, field survey revealed that it is not a temporary shelter but a life-time work for some workers. Moreover, the expansion of the informal sector is leading more severe competition among informal sector workers over market and source of works. This should result in significant socioeconomic disparities within the informal sector and limiting its function as a social safety net. These disparities are the cause of the different level of workers' strength to correspond and cope with changes and increased competition

**Sylvain Dessy St'ephane Pallage(2001)**<sup>46</sup> have examine on taxes, inequality and the size of informal sector In this note they develop a simple heterogeneous-agent model with incomplete markets to explain the prevalence of a large, low-productivity, informal sector in developing countries. In this model, taxes levied on formal sector agents are used to finance the provision of a productive public infrastructure, which creates a productivity premium from formalization. The model offers endogenous differentiation of rich and poor countries. Complete formalization is equilibrium only in countries with the appropriate initial conditions. They discuss existence of this equilibrium and highlight the ambiguous effect of taxes.

<sup>&</sup>lt;sup>46</sup> Sylvain Dessy St´ephane Pallage(2001), 'Taxes, Inequality and the Size of the Informal Sector' july 2001 (Abstract form of this paper is available from website: http:// <u>www.ideas.repec.org/p/lvl/laeccr/0112.html</u>

**Jan Hanousek and Filip Palda(2003)**<sup>47</sup> have studied on measuring the informal sector on transition economy. An easy and popular method for measuring the size of the underground economy is to use macro-data such as money demand or electricity demand to infer what the legitimate economy needs, and then to attribute the remaining consumption to the underground economy. Such inferences rely on the stability of parameters of the money demand and electricity demand equations, or at very least knowledge of how these parameters are changing. We argue that the pace of change of these parameters (such as velocity) is too variable in transition economies for the above methods of estimating the size of the underground economy to be applicable. We make our point by using Czech and other transition country data from the financial and electricity sectors.

**James H. Anderson (1998)**<sup>48</sup> analyzes the size, origins, and character of Mongolia's informal sector. The explosion of informal entrepreneurial activity during Mongolia's transition to a market economy represents one of the most visible signs of change in this expansive but sparsely populated Asian country. In an attempt to deepen our understanding of the informal sector during transition, this paper takes an eclectic approach, merging the anecdotal experience of numerous qualitative interviews with the hard data provided by a survey of 770 informals in Ulaanbaatar, by a national household survey, and by official employment statistics. The varied sources of data and information are used to generate rudimentary estimates of the magnitude and trends of informal activity in Mongolia, estimates that are surprisingly consistent with each other. The reasons for such rapid growth of informal activity attending the transition are then explored and evaluated. In a broader sense, this paper paints a portrait of the character of the informal sector in

<sup>&</sup>lt;sup>47</sup> Jan Hanousek and Filip Palda (2003), 'Measuring the Informal Sector in a Transition Economy using Macro Methods1, September 2003, Montrreal, Canada (Abstract form from website http://www.papers.ssrn.com/sol3/papers.cfm?abstract\_id=552124

<sup>&</sup>lt;sup>48</sup> James H. Anderson(1998), 'The Size, Origins, and Character of Mongolia's Informal Sector during the Transition' World Bank Policy Research Paper No 1916, World Sank – Europe and Central Asia, Poverty Reduction and Economic Management, May 1998 website:<u>http://www.worldbank.org/html/dec/Publications/Workpapers/WPS1900series/wps1916/wps1916.abst</u> ract.html
Mongolia: what it means to be informal, how informal perceive their employment status, the levels of incomes, the regulatory environment, the attitudes of officials toward the informal sector, the degree of coverage under social and health insurance, and the contribution of micro enterprise to the battle against poverty.

Aureo de Paula and Jos'e A. Scheinkman(2006)<sup>49</sup>, have examined the informal sector. This paper investigates the determinants of informal economic activity. They present two equilibrium models of the determinants of informality and test their implications using a survey of 50,000 small firms in Brazil. They define informality as tax avoidance; firms in the informal sector avoid tax payments but suffer other limitations. In the first model, there is a single industry and informal firms face a higher cost of capital and a limitation on size. As a result informal firms are smaller and have a lower capital-labor ratio. These implications are supported by the empirical analysis. A novel theoretical contribution in this paper is a model that highlights the role of value added taxes in transmitting informality. It predicts that the informality of a firm is correlated to the informality of firms from which it buys or sells. The model also implies that higher tolerance for informal firms in one production stage increases tax avoidance in downstream and upstream sectors. Empirical analysis shows that, in fact, various measures of formality of suppliers and purchasers (and its enforcement) are correlated with the formality of a firm. Even more interestingly, when they look at sectors where Brazilian firms are not subject to the credit system of value added tax, but instead the value added tax is applied at some stage of production at a rate that is estimated by the State, this chain effect vanishes.

**Pietro Gennari(2004)** <sup>50</sup>has examined the estimation of employment and value added in informal sector. In this paper an attempt has been made to

<sup>&</sup>lt;sup>49</sup> Aureo de Paula and Joe'e A. Scheinkman (2006), 'The Informal Sector' July 12 2006, University of Pennsylvania (Available in abstract form from website: <u>http://www.ideas.repec.org/i/H2.html</u>

<sup>&</sup>lt;sup>50</sup> Pietro Gennari (2004), 'The Estimation of Employment and Value Added of Informal Sector in Pakistan' Bangkok, 2004, (This paper was presented in 7<sup>th</sup> Meeting of the Export Group on Informal Sector Statistics(Delhi Group) New Delhi, 2-4 February 2004) http://www.unescap.org/STAT/apex/1/background\_paper\_session3\_escap1.pdf

estimate the contribution of informal sector in terms of its employment and GDP with respect to the Pakistani economy. As a direct estimation of the value added of the informal sector is not possible at the moment, an indirect approach is followed using the 'labour input' methodology, which requires data support from both establishments' and households' surveys. The LFS is the main source currently used in Pakistan for producing statistics on employment of the informal sector. Like in many other countries, the definition of the informal sector adopted in the Pakistani LFS is not fully harmonized with the Delhi Group recommendations, as the criterion of registration of the enterprise is not implemented and households' employing paid domestic employees are included in the definition. Moreover, the quality of the information on the characteristics of the enterprise (above all the one on accountancy practices) collected from employees is not as accurate as the one coming from selfemployed and this is likely to have quite a significant impact on the size of the sector. The main findings of the LFS confirm that large differences in working time, compensation and job turnover exist between formal and informal employment and that wage differentials by sex are higher in the informal sector. At the same time, the results point out that the youngest workers and the less educated are over-represented in this segment of the Pakistan economy, while, contrary to expectation, women are not (but this may be due to underestimation of their participation in the labour market).

The major problems concerns the estimates of productivity by industry of the workforce engaged in the informal sector: except for manufacturing, virtually no estimates of value added per worker are currently published, even if proxies could be calculated for some industries on the basis of the existing sources, provided that data broken down by firm size would be made available by the FBS. An attempt has been made to use the corresponding estimates of value added per worker of the Indian economy, appropriately adjusted to take into account that wages in Pakistan are considerably higher than in India. The results of this exercise show that the contribution of the informal sector to total Value added is substantial in Wholesale and Retail Trade and Hotels and Restaurants, accounting for over half of the total value

added of the industry, and quite large also in Transport and Communications and in Social, Community and Personal Services. Further work is needed to derive appropriate estimate of productivity from Pakistani data sources and to analyze the new methodology used for the compilation of the revised NA, assessing the extent to which informal activities has already been covered by the revised GDP estimates.

**P.F.Blaauw** (2005)<sup>51</sup> has explained the dynamics of the informal sector in South Africa. Unemployment is one of the major macro-economic problems facing South Africa. Many workers who are unable to find employment in the formal sector hope to find some income from work in the informal sector. The activities of day labourers developed as a result of this. The aim of this paper is two fold. The first objective is to address the lack of research on informal labour markets by focusing on the day labourers in Pretoria as a case study. The second objective is to investigate the dynamics underpinning the labour market of day labourers in Pretoria. Day labourers involved in this study were mainly male, young, low skilled, earning low and uncertain levels of income and working under harsh conditions. A significant portion of day labourers in Pretoria previously held formal sector jobs. Long spells of unemployment and low skill levels, make it extremely difficult for day labours to get back into the formal sector. The development of existing and the acquiring of new skills that is in demand in the labour market are vital for these people. Policies, addressing structural unemployment, like training and skills development must be directed to this industry as well. This case study proved that many activities in the informal sector can not provide a permanent solution to unemployment. Being a day labourer is no exception.

Francisco Galrão Carneiro and Andrew Henley(2002)<sup>52</sup> have examined the modeling of formal versus informal employment and earning in Brazil. Many

<sup>&</sup>lt;sup>51</sup> P.F.Blaauw (2005), 'The Dynamics of the Informal Sector in South Africa – A case Study of Day Labourers in Pretoria' Durban, South Africa, 2005, (this paper was presented at the biennial conference of the Economic Society of South Africa, 7-9, September 2005) <u>http://www.essa.org.za/download/2005Conference/Blaauw.pdf</u>

<sup>&</sup>lt;sup>52</sup> Francisco Galrão Carneiro and Andrew Henley(2002), 'Modeling Formal vs. Informal Employment and Earnings: Micro-econometric Evidence for Brazil, January 2002, Brasilia-DF 70.190-160, Brazil. Website: www.scielo.br/scielo.php?script=sci\_arttext&pid=S0101-41612006000400008&Ing=ene&nrm=iso&t

developing economies, especially in Latin America, appear to be experiencing structural growth in their informal sectors, inconsistent with traditional views that the informal sector acts as a buffer against unemployment, or is symptomatic of labour market segmentation. This paper presents microeconometric evidence for Brazil that challenges this conventional wisdom. A model of informal sector choice is estimated using selectivity-corrected predicted earnings for each individual in both informal and formal sectors. The results of the study show that a higher predicted earnings differential between the informal and formal sector is associated with a greater probability of a worker being employed in the informal sector. We conclude that informal employment may be a desirable form of labour market status for many in Latin America, rather than a consequence of structural segmentation or cyclical displacement.

#### 1.3 Need for the study

Informal activities exist all over the world. Street vendors in Mexico City; pushcart vendors in New York city; rickshaw pullers in Kolkatta; jeepney drivers in Manila; garbage collectors in Bogotá; and roadside barbers in Durban are some familiar examples of informal sector activities in the world. Those who work on the streets or in the open-air are the more visible occupational groups in the informal economy. The streets of cities, towns, and villages in most developing countries - and in many developed countries - are listed by barbers, cobblers, garbage collectors, waste recyclers, and vendors of vegetables, fruit, meat, fish, snack-foods, and a myriad of non-perishable items ranging from locks and keys to soaps and detergents, to clothing. In many countries, head-loaders, cart pullers, bicycle peddlers, rickshaw pullers, and camel, bullock, or horse cart drivers jostle to make their way down narrow village lanes or through the maze of cars, trucks, vans, and buses on city streets. But the informal economy also includes activities and workers that are less visible and, even, invisible. Less visible informal workers work in small shops and workshops. On the street corners of most cities, towns, or villages, even in residential areas, are countless small kiosks or stalls that sell goods of

every conceivable kind. Down the crowded lanes of most cities, towns, or villages are small workshops that repair bicycles and motorcycles; recycle scrap metal: make furniture and metal parts; tan leather and stitch shoes; weave, dye, and print cloth; polish diamonds and other gems; make and embroider garments; sort and sell cloth, paper, and metal waste; and more. The least visible informal workers, the majority of them women, sell or produce goods from their homes: garment makers; embroiderers; incensestick rollers; cigarette-rollers; paper bag makers; kite makers; hair band makers; food processors; and others. These least visible workers are not confined to developing countries. Home-based workers are to be found around the world, including: garment workers in Toronto; embroiderers on the island of Madeira; shoemakers in Madrid; and assemblers of electronic parts in Leeds. Some of these home-based workers work on their own account, while others work on a piece-rate basis for a contractor or a firm. Some common informal works are in both developed and developing countries: casual workers in restaurants and hotels; sub-contracted janitors and security guards; casual or day labourers in construction and agriculture; piece-rate workers in sweatshops; and temporary office helpers or off-site data processors. Most workers in all of these categories of work are informally employed, without secure contracts, worker benefits, or social protection.<sup>53</sup>

Informal employment comprises one-half to three-quarters of non-agricultural employment in developing countries in general. Specifically, 48 percent in North Africa; 51 percent in Latin America; 65 percent in Asia; and 72 percent in sub-Saharan Africa were non-agricultural employment in informal sector. Self-employment comprises a greater share of informal employment than wage employment; specifically, self-employment represents 70 percent of informal employment in sub-Saharan Africa, 62 percent in North Africa, 60 percent in Latin America, and 59 percent in Asia<sup>54</sup>.

<sup>&</sup>lt;sup>53</sup> Men and women in the Informal Economy: A Statistical Picture Employment Sector, ILO, Geneva, 2002, p 9. website:.http:// <u>www.ilo.ch/public/english/employment/gems/download/women.pdf</u>

<sup>54</sup> Ibid p7

China, in Asia, is a developing country with abundant labour resources. With economic restructuring and acceleration of globalization, free market competition, state-owned enterprises have also started downsizing their labour force. The informal sector is gaining ground, and to some extent it has become a new force in creating jobs, releasing employment pressure in China's labour market. The emergence of the informal sector has also positively affected employment promotion and poverty alleviation. The informal sector has not only absorbed a large number of employees retrenched from state-owned enterprises, it has also helped raise state-owned enterprises efficiency. It has also provided a vast number of jobs to rural migrant workers. By the end of 1999, the total number of self-employed had reached 82.63 million, 12 percent of the total employed. According to a survey by the All China Federation of Trade Unions of laid-off employees in ten cities and one county, about 65.7 percent of these have higher income than before they were laid-off.<sup>55</sup>

A definition of the informal sector in the Russian Federation is provided whereby the 'informal sector' covers all economic activities which are deliberately concealed from the activities in order to minimize costs and avoid taxes. This sector was accounted for approximately 20 percent of GDP. It was developed during the period of transition to market economy as an alternative to mass unemployment and now provides jobs outside the regulated public sector. This sector has higher demand due to high growth sector, remarkably stable and survival ability in Russian Federation<sup>56</sup>.

In Cameroon of central Africa, the GDP growth rate was decreased from 3.4 percent in 1980 to 1.3 percent in 1990 due to the increased in labour force in this period. But services and industrial activities in formal sector had declined. It was believed that 80 percent of all new jobs were created in the informal

<sup>&</sup>lt;sup>55</sup> Research Group of the Department of Training and Employment, 'skills training in the informal sector in China' Ministry of Labour and Security, Department of Training and Employment People's Republic of China, ILO(2002) p 6 website: <u>http://www.ilo.org/public/english/employment/infeco/download/china.pdf</u>

<sup>&</sup>lt;sup>56</sup> Liudmila I. Velichko and Gortenzia M. Romanenkova, 'Skills Training for Decent Work in the Informal Sector of the North-West Resigion of Russia', ILO (2002), Geneva.

economy. The use of child labour in the informal sector has increased as a result of this economic crisis<sup>57</sup>.

In Tanzania of East Africa, population growth rate was 3.2 percent per annum from 1980 to 1990. Growth rate of formal labour force dropped from 3.3 percent to 2.6 percent between the 1980/90 to 1990/99 periods. The informal sector was estimated to be contributing only 33 percent of GDP of Tanzania in 1990. Report show that about 60 percent of Tanzanian business comes from informal economic activities. In Kenya, in between 1991 and 1994, the informal sector grew 16.1 percent but formal sector grew only by 1.6 percent<sup>58</sup>

In Uganda, employment of informal economy exceeds the formal sector employment. By 1990's 26 percent of all non-farm employment was believed to be in the informal economy in Angola. In South Africa, in 1996, the urban informal employed was one million people whereas in 1999, this had increased to 1.9 million, i.e., rose by 90 percent. In Ghana, 89 percent of labour force is employed in the informal sector. Similarly, one-third of urban labour force in Nigeria was absorbed by informal sector in 1998<sup>59</sup>

The magnitude of Nepalese informal economy cannot be defined due to the absence of latest data in this respect. The Nepal Labour Force Survey had estimated that 8.6 million workers were involved in the broad informal economy including agriculture. If we take account of non-agricultural informal workers, the number is about 1.7 million people aged 15 and over was then employed in the informal sector. This compares with total employment of only 600,000 persons in other jobs outside the agricultural sector. Likewise, total workers involved in the informal economy including agriculture stood at 93.6 percent of the total workforce employed. If we just take non-agricultural informal workers then it accounts for 73 percent of all employment in main job outside the agricultural sector.

<sup>&</sup>lt;sup>57</sup> Jantjie Xaba; Pat Horn and Shirin Motala, 'The Informal Sector in Sub-Saharan Africa' Employment Sector, Working Paper On the Informal Economy, Employment Sector, ILO, 2002/10. website:www.wiego.org/papers/2005/unifem/29\_ILO\_WP\_10\_IS\_SubSaharan\_Africa\_Horn.pdf

<sup>58</sup> Ibid

<sup>59</sup> Ibid

Of those working in the informal sector, just over a million were males and about 600,000 females. If they find employment, the young and the elderly were the age groups most likely to find work in the informal sector. Amongst those employed outside the agricultural sector, some 82 percent of those aged 15 to 19 and as many as 94 percent of those aged 60 and over were employed in the informal sector. Of those in employment, as much higher proportion of women than men were to be found working in the informal sector. Thus, while two-thirds of main jobs outside the agricultural

Dev Raj Dahal argues- "The benefits of informal economy are always underestimated despite its meaningful contribution to the livelihoods of the poor people. Obviously, informal sector continues to grow in direct proportion to the decline of formal economy. New technology tends to marginalize once formal economy by expanding the space of new economy. In Nepal, its contribution to national economy is more than fifty percent."<sup>60</sup> In this definition the informal sector includes all the economic activities except contribution of formal sector, i.e., both agriculture and non-agriculture economic activities have included in informal economy.

## 1.4 Significance of the study

The informal sector has a large number of small-scale production and service activities that are individually or family owned and uses labour intensive and simple technology. They operative like monopolistically competitive, driving profits down to the average supply price of labour and become potential new entrants. They are usually self-employed workers in this sector, have little formal education and generally unskilled, and lack access to financial capital. As a result, worker productivity and income tend to be lower in the informal sector than in the formal sector. More significantly, through informal job, workers are motivated usually to obtain sufficient income for survival relying on their own indigenous resources to create work without support as formal sector gets.

<sup>&</sup>lt;sup>60</sup> Rimal, Bishnu.,(2005), 'Informal Economy: New Challenges for Trade Unions' web site <u>www.gefontine.com.htm</u>

The informal sector plays a significant role for income earning and employment generation in developing countries where formal sector becomes unable to create employment with increasing labour force. By 2000, this sector was providing about 40 percent of total urban employment. However, its share in the labour market continued to grow steadily. Out of every hundred new jobs created during the 1980's seventy have been in the informal sector. Thus, the percentage of informal workers with respect to non-agricultural employment grew from 40 percent in 1980 to more than half of urban employment at present<sup>61</sup>.

A study of informal sector was undertaken based on the experience of 110 countries all over the world, which comprised 26 countries from Asia, 23 from Africa, 18 from Latin and South America, 23 from European transformation countries, 16 from West European OECD and 4 from North American and Pacific countries. The average size of informal sector in percent of GDP for the period of 1999/2000 was 26 percent in Asia, 42 percent in Africa, 41 percent in Latin and South America, 38 percent in European countries, 18 percent in West European OECD countries, 13.5 percent in North American and Pacific countries. The size of informal sector of Nepal, India, Pakistan, Bangladesh, China were 38.4 percent, 23.1 percent, 36.8 percent, 35.6 percent and 19.6 percent respectively in 1999/2000. Among the Asian countries Thailand has the largest informal sector in the year 1999/2000 with 52.6 percent of GDP followed by Sri Lanka with 44.6 percent. These facts show the significance of informal sector more in developing countries than developed countries in the world<sup>62</sup>.

Most of the developing countries face, among other things, the problems related to employment creation and income distribution. Despite our best

<sup>&</sup>lt;sup>61</sup> Vector E. Tokman, (2003), 'Integrating the Informal Sector in the Modernization Process' Website: www.un.org/docs/ecosoc/meetings/2006/forum/Statements/Tokman.pdf

<sup>&</sup>lt;sup>62</sup> S. Friedrich, (2002), Size and Measurement of the Informal Economy in 110 countries around the World' Website: <u>www.unescap.org/tid/gateway/tisgway\_is.pdf</u>

efforts, the scope for generating major increases in industrial employment in large scale manufacturing sector remains limited <sup>63</sup>.

The rate of employment creation resulting from the growth of output in the modern formal sector has not increased to keep pace with the high and rising rates of unemployment and hence reliance is placed on the informal sector which has developed on its own and without the support and blessings of public authorities and quite often with their disapproval<sup>64</sup>.

## **1.5 Conceptual Framework**

The concept of informal sector is related to all the unorganized economic activities though their application in particular case of country is differ. The term" informal sector" came into existence in official documents as a result of an employment mission to Kenya by the ILO in 1972. The term was used to denote tiny units, working hard in the production of goods and services but whose activities were not recognized, recorded, protected or regulated by the public authorities.

A wide range of activities from street vending, shoe-shining, food processing and other petty activities requiring little or no capital and skills to activities involving some amount of skill and capital such as tailoring, repair of electrical and electronic goods, operation of transport equipments were included in the informal sector. Invariably, the motivation for these activities is employment and income and not necessarily the maximization of profit or return on investment.

In 1993 the ILO came-up with a resolution in the ICLS giving a conceptual Framework and guidelines for the collection of statistics on the informal sector. The resolution was intended to provide the first internationally approved technical guidelines for the development of statistics on the sector and to reduce the differences in the informal sector statistics of different countries and thus improve the international comparability of the data.

<sup>&</sup>lt;sup>63</sup> Pack, Howard (1978) 'Macro-economic Implications of factor constitution in Industrial Processes', World Bank Washington, D.C

<sup>&</sup>lt;sup>64</sup> Meier, Gerald. (1984) 'Leading Issues in Economic Development', Oxford University Press; Oxford

The preamble of the 15<sup>th</sup> ICLS recognized that informal sector statistics were especially needed in developing countries where the informal sector was playing an important role for total employment and income generation. It also recognized that at the time when the resolution was adopted, the experience in informal sector measurement was still limited, and countries gained that the concepts and techniques for informal sector measurement would be improved as additional experience.

In February 1993, the UN Statistical Commission endorsed the ICLS resolution and in July 1993, the definition of informal sector adopted by ICLS formed part of the revised SNA adopted by the UN Economic and Social Council. The SNA (1993) characterized the informal sector as consisting of units engaged in the production of goods or services with the primary objective of generating employment and income to the persons concerned. They form part of the household sector as unincorporated enterprises owned by households. The broad characteristics of the informal sector are::

- Private Un-incorporated Enterprises (Enterprises owned by individuals or households that are not constituted as separate legal entities independent of their owners)
- For which no complete accounts are available that would permit a financial separation of the production activities of the enterprise
- Produce at least some of their goods or services for sale or barter
- The employment size of the enterprise is below a certain threshold (to be determined according to national circumstances)
- And/or not registered under specific form of national legislation<sup>65</sup>.

The informal sector includes small – scale operation, simple and labour – intensive technology unregulated and competitive markets, low barriers to entry and family ownership of enterprises. Informal sector activities are largely residual in nature. Thus, the availability and quality of information on the sector tends to be extremely limited.

<sup>&</sup>lt;sup>65</sup> Kolli, Ramesh (2005), 'Delhi Group on Informal Sector and System of National Accounts' website: <u>http://www.unescap.org/STAT/apex/2/APEX2\_S.5\_India-SNA-informal.pdf</u>

By most economic studies and data collection exercise, the classification of the economically active population in Nepal into categories of man workers does not provide a complete picture of the extent of informal sector employment<sup>66</sup>.





(Based on ILO guidelines to define informal sector)

<sup>&</sup>lt;sup>66</sup> UNDP/World Bank (1990), 'Nepal Reliability Poverty in a Resourse-Scarce Economy' Asia p 80, 82

The concept of 'IS' is closely related to the ILO international standard definition of 15<sup>th</sup> conference of labour statisticians. Difficulties of defining IS activities in the agricultural sector the IS has been defined only in respect of non – agriculture. Thus, a person whose main job is not in agriculture has been counted as works in the informal sector if his or her present job registered in private company or other where employee number. of paid employee should be less than 10, an operating own business with less than 10 regular paid employees or contributing family member without pay other. In this concept of IS the location of activities include both rural and urban areas. According to the ILO guideline, the population employed in the informal sector, whether it is their main or second job. However, in the case of Nepal, the informal sector has been defined only on the basis of each person's main job due to insufficiency on information available about the characteristics of the second job.

#### 1.6 Scope of study

Review of the various literature of informal sector and its evolution has revealed that it had begun in the early 1970's when ILO first coined the term 'informal sector'. It has assumed significance due to its strong impact on employment. The scope of 'IS' is widely accepted in the socio-economic development of a country. It incorporates many of the activities, where the government cannot perform. It is seen to absorb an increasing large segment of job seekers and its contribution to manpower development and skill upgradation is significant<sup>67</sup>.

The Asian experience with the informal sector shows that its size and content are determined by the robustness of economic growth on the demand side and on the supply side by the magnitude of the rural labour surplus and the pace of its release arising from an increase in agricultural productivity and smith of non-farm activities. On the supply side, a new phenomenon is that of

<sup>&</sup>lt;sup>67</sup> Hans, H.Murkier and Thomas Walter(1996), ' The Informal Sector: A Source of Income for the Poor' in Attacking the Root of Poverty, p 64

downsizing the formal sector. Educated labour force joined the informal sector after losing their formal sector jobs in the recent year in Mongolia, Vietnam and China<sup>68</sup>

If it is extended to include the agricultural sector, the size of the informal sector rises to 90 percent of total national employment as in India, Bangladesh and Nepal. Amongst Asian countries, the size of the informal sector labour force in many countries goes upto 50-60 percent of total non-agricultural/ urban employment. By all measures South Asian countries reflect an increasing trend in the size of the informal sector.

In Nepal, the evolution of informal sector has been growing from occupation borne activities to business oriented activities and mostly concentrated in urban area, but still in rural area the types of activities are occupational. However, the 'IS' is important in Nepal due to a growing part of the local and national economy, although income earning capacity in each activity is low but they are collectively large and valuable, and it contributes significantly to employment<sup>69</sup>. The present study has focused to incorporate the various characteristics of informal sector activities, particularly those seen in Chitwan district and generally in Nepal. It has tried to examine the meaningful classification of the informal sector and the nature of activities as far as possible with the help of various literatures. These types of classifications are: labour - categories, industrial classification, area-wise classification, sexwise classification, size-classification, occupational classification, etc. Most of the classifications are based on ILO guidelines. This sector in Nepal helps in poverty alleviation programs by generating employment and earning income, both in rural and urban areas. The informal sector is comprised of enterprise / work with a growing market demand that reflects high-income elasticity of demand (e.g., tourism services) and those with low-income elasticity of demand (e.g., rickshaw services). Alternatively, these two groups have been

<sup>&</sup>lt;sup>68</sup> ATM Nurul Amin (2002), The informal Sector in Asia from the recent work perspective, ILO, Geneva pp – XI).

<sup>&</sup>lt;sup>69</sup> ILO (2004), 'The Informal Economy and Workers in Nepal' Series-1, Kathmandu Nepal, p-1.

denoted respectively as the dynamic / modern informal sector and marginal / survivalist groups.

# 1.7 Objectives

The general objective of this study is to analyze the pattern of employment and income generation in informal sector. The specific objectives are as follows:

- To determine the employment pattern in informal sector,
- To determine the characteristic of employment in rural and urban informal sectors,
- To find out relative productivity in rural and urban informal sector,
- To show the occupational effect of employment in informal sector.

# 1.8 Hypothesis

The study plans to test following set of hypotheses:

- 1. There is continuous growth of informal sector in Nepal.
- 2. Growth of informal sector has been rapid in both rural and urban areas.
- 3. There is diversification in the informal sector as it is being expanded to new and upcoming activities.
- 4. It is more labour-intensive and less capital-intensive.
- 5. Through informal sector, average level of earnings remains low but it varies widely within the informal sector itself.

# 1.9 Methodology

In the present study, an attempt has been made to measure the various variables of informal sector activities more so in quantitative terms, than in descriptive terms. To measure the informal sector activities, various methods have been in practice. Due to the heterogeneous nature of informal sector, no single method can capture all the informal sector activities simultaneously. In the past indirect methods and currently survey methods are in practice. Some

of the survey methods in measuring informal sector are: labour force surveys; establishment surveys; mixed household and enterprise surveys; independent informal sector surveys; modular approach; integrated surveys etc.

In national practices, Nepal Labour Force Survey has used household survey method to collect the information of the informal sector in Nepal in 1998/99. It is not a separate survey for informal sector only. ILO in 1993 recommended the mixed surveys household and enterprises as the best means to capture the informal sector.

Various aspects of IS have been tried to capture as far as possible in this study. So, mixed household and enterprise surveys have been mainly used in the study. The study areas were classified into two broad areas: urban and rural. Bharatpur and Ratnanagar are two municipalities in urban areas and 36 VDCs in rural areas of the Chitwan district.

Chitwan is one of the inner Terai districts and situated in the central southern part of Nepal. This district was selected as a study area because of following reasons: After the launching of Malaria Eradication Programme in mid-1950s the process of rehabilitation was accelerated. People from Northern Hills of Nepal and Indian migrants started flowing into Terai and inner Terai of Nepal. In many of these Indian immigrants some of them were entrepreneurs who settled with a view to start small business and help to develop industrial atmosphere at micro level. Most of these settlers from India had not settled permanently in Chitwan. This district is also fertile land for tourism where the informal sector activities have been growing.

## 1.10 Sampling procedure

The present study of informal sector of Chitwan district has classified into rural and urban areas. The urban areas has further classified into Rural1 [Bharatpur Nagarpalika (Municipality)] distributed in 14 wards and U<sub>2</sub> [Ratnanagar Nagarpalika (Municipality)] distributed into 13 wards. The informal sector activities have clustered in city areas in few wards. Among the clustered areas, few locations were randomly selected. The size of major occupations for interview was pre-determined by observation method following a pilot survey. The size of each occupation type was kept in proportion to their universe size as observed in the pilot survey conducted at locations where the informal sector activities were running. In each location the persons for interview were randomly selected on the basis of occupation. Most of the respondents who were in Fixed and Semi-Mobile activities, their interview were taken at working spot itself. The interview of respondents for interview under Mobile activities could not be conducted at the place of their work owing to lack of time and hence their home/residential address was noted during meeting with them at work and thereafter the interview was carried out at their home/residence on a convenient time as fixed. The total size of samples for study of urban area was 266 where in U<sub>1</sub> it was 184 and for U<sub>2</sub> it was 82. According to 2001 census, the total population in U<sub>1</sub> and U<sub>2</sub> were 89,323.and 37,791 respectively.

According to the geographical and political location, the rural areas have been classified into four strata. Using random method of sampling, some VDCs had been selected in each stratum. Each VDC area consists of nine wards. The individual ward is considered representative of the large settlement. In these selected VDCs some wards had been selected by draw of lots from amongst the list of the wards where the informal sector activities have been concentrated.

#### 1.11 Sources of data

Primary sources have been used for collection of data of informal sector in Chitwan District in both rural and urban areas. The informal sector activity in urban area was clustered in few locations and hence it was decided not to give equal weight for sampling to each ward in urban area. In case of rural area, the scenario was quite different with different activities scattered at different locations. From the rural areas 152 households or respondents belonging to informal sector have been selected. The selection of respondents from various strata has been shown in Table 1.1 below. The distribution of strata has based on geo-political criteria.

Strata of Attributes	Hilly areas	Eastern part	Western part	Southern part	Total
No of VDC	9	11	12	4	36
Population	48664	135644	108410	41626	334344
Selected no of VDC	2	4	4	2	12
Selected no of Wards	2	4	4	2	12
Selected no of household or interviewed	22	62	50	19	152

Table 1.1: Distribution of Sample Size

# 1.12 Period of study

The period under study is defined by the Nepal National calendar year. Data collection period of informal sector in Chitwan District was chosen between April 2005 to June 2005 (around 15 Chaitra 2061 to around 15 Ashad 2062 B.S) i.e., it was around three months. Mainly summer and rainy season were selected for data collection. The main reason to select this period was to include various seasonal activities of informal sector as far as possible.

# 1.13 Shortcomings of the study

Efforts were made to obtain reliable and accurate data and information from the respondents in the field survey. Nevertheless, the study has recognized the following shortcomings:

- 1. This study examines the income and employment generation in informal sector at one point of time for the year 2005.
- 2. The present study, which is based on sample survey, is concentrated only in Chitwan district, which may not be fully representative of Nepal.

# 1.14 Chapter scheme

The study is covered through the following chapters:

- 1. Introduction, Review of Literature and Methodology.
- 2. Basic Features of the Nepalese Economy and the district of Chitwan.
- 3. Pattern of Poverty and Unemployment in Nepal.

- 4. Growth of Organized and Unorganized Sectors in Nepal and Chitwan district.
- 5. Pattern of Employment in Informal Sector in Chitwan district.
- 6. Impact of the Informal Sector on Income and Employment.
- 7. Occupational Effect of employment in Informal Sector.
- 8. Role of Government Measures.
- 9. Conclusion and Policy Suggestions

In the following chapter a basic feature of Nepalese economy and the district of Chitwan is being presented so as to give a better understanding of the overall economic situation that would help in analyzing the pattern in a desired direction toward the study of informal sector.

# CHAPTER-II BASIC FEATURES OF THE NEPALESE ECONOMY AND THE DISTRICT OF CHITWAN

This chapter provides the basic features of the Nepalese economy and the district of Chitwan. In the first part we would like to provide general glimpse of the country in the form of rampant poverty, population trend, industrial activities, privatization, constraints and challenges, extreme disparity, unemployment, unexploited resources, lack of infrastructure etc. Similarly, in the second part we would like to give a brief description of Chitwan district in the form of geographical and political division, population status, ownership and size of agricultural land, industrial activities etc.

# 2.1 Basic features of the Nepalese Economy

# 2.1.1 Introduction

A small Himalayan kingdom wedged between two emerging economic powers of Asia, China in the North and India in the east, west and south with an open border. Nepal is а least developed, landlocked, geographically, disadvantageously placed, an economically vulnerable nation of enormous ecological, cultural and ethnic diversity. Nepal is said to be rich in bio-diversity processing and 2.3 percent of the world's hydro resources<sup>70</sup>. Preliminary geographical survey reveal that subterranean resources like iron ore, copper, mica, gold, lead and zinc, limestone, slate, mineral oil and gas, coal, nickel, sulfur, graphite and dolomite, are available in the country. However, the extent and commercial potential of these mineral deposits are not yet known.

Nepal is located in between the latitude 26°22' north to 30°27' north and longitude 80°4' east to 88°12' east like a rectangular shape. There are 6000 rivers and rivulets, 5,000 species of plants, 175 species of mammals, 850 species of birds and over 6,000 species of butterflies available as asset of

<sup>&</sup>lt;sup>70</sup> The World Resources Institute/The United Nations Environment Program/The United Nations Development Program/The World Bank (1998), 1998-99, World Resources: 'A Guide to the Global Environment', Oxford University Press, 1999.

Nepal<sup>71</sup>. The total area of the kingdom is 147,181 sq. km., which is double the size of Sri Lanka, 23 times smaller than India and 68 times less than the size of China. The country is divided in three regions, mountain, Hill and Terai accommodating 7.3 percent, 44.3 percent and 48.4 percent of total population whereas the area in three regions are 35 percent, 42 percent and 23 percent respectively. It has three major river systems namely, Koshi, Karnali and Mahakali toward east to west respectively. There are more than 3915 Village Development Committees (VDCs) and 58 municipalities in the country<sup>72</sup>.

#### 2.1.2 Rampant Poverty

The country's economy depends largely on the use of its natural resource base. It is among the least developed countries of the world. Nepal's economic growth has been hampered by the lack of economic opportunities and infrastructure. Growing poverty and environmental deterioration has further exacerbated the problem. The perception of looking at poverty from human and social dimension contradicts the traditional belief that poverty appears due to the sole lack of economic resources. The conventional definition of poverty has now been gradually broadened and widened since the connotation goes beyond the implication of inadequate level of income to sustain the life. It includes various human dimensional aspects like illiteracy, early marriage, infant death, malnutrition, sickness and so on. Poverty is divided into two categories - absolute and relative - the former deserves more attention for analytical point of view. A poverty line is hypothesized to measure the absolute poverty. The recent estimation done by the NPC in poverty reduction strategy paper is 38 percent whereas the target at the end of plan (FY 2000/01) was 32 percent. The Nepal Living Standard Survey-1996 estimated the poverty line at 42 percent level. Table – 2.1, presents targets and achievements made during the Ninth Plan in relation to poverty and human development indicators.

<sup>&</sup>lt;sup>71</sup> Dahal, Acharya, Dahal, Bhattanchan and Nepal, 'Development Challenges for Nepal' 2000, p9

<sup>&</sup>lt;sup>72</sup> CBS, Nepal Planning Commission, (2003)

Indicators	Target	Progress
Population below poverty line (%)	32.0	38.0
Literacy above 15 years of age (%)	70.0.	49.2
Primary school enrollment rate (%)	90.0	80.4
Infant mortality rate (Per 1000 births)	61.5	64.2
Maternal mortality rate (Per 100,000 births)	400.0	415.0
Total Fertility rate	4.2	4.1
Average life expectancy (years)	59.7	61.9
Population with access to potable water	100.0	71.6

Table 2.1: Human Development Indicators in Nepal during 9<sup>Th</sup> Plan

Source: - 10<sup>th</sup> plan (2002 – 2007).

At the end of ninth plan, population below the poverty line estimated to have been brought down only to 32 percent against the plan target of 38 percent. Similarly, literacy rate of population above 15 years of age reached 49.2 percent against the targeted 70 percent, primary school enrollment 80.4 percent against the targeted 90 percent, infant mortality (Per 1000 births) 64.2 percent against the targeted 61.5 percent, maternal mortality (Per 100,000 births) 415 against targeted 400, total fertility rate 4.1 against 4.2, average life expectancy 61.9 yrs against targeted 59.7 years, and population with access to potable water reached to 71.6 percent against targeted 100 percent (Table 2.1).

The nature of income – based poverty is also rural oriented. It is especially rampant in the rural areas and more intense and severe in the villages of the hilly regions of the mid and far western development regions. Overall poverty has become the multi-dimensional fact of life for the Nepalese people.

According to World Bank/UNDP study, poverty incidence is estimated to be around 70 percent. Estimates vary in different studies but the fact is that poverty is widespread in the country. Poor communities generally exist among agriculturists with subsistence land holdings, occupational castes, suppressed groups (Dalits) and tribes.

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According to Living Standard Survey<sup>73</sup>, 51 per cent of the households felt that their consumption on food was less than adequate at national level. The share of consumption on food was less than adequate in rural and urban areas by 52 and 36 per cent respectively. The share of food consumption of households in Mountain, Hills and Terai were 63 percent, 55 percent and 45 percent respectively. Likewise, 64 percent of the households indicated having less than adequate housing facilities. 37 percent and 66 percent of the households in the urban and rural areas were having less than adequate housing facilities. Similar housing problems had been found in Mountain, Hills and Terai regions. In the case of clothing, 52 percent of the households indicated that they had less than adequate clothing. House proportion with less than adequate clothing in the rural areas was 60 percent and in the urban it was 27 percent. Likewise, household proportion with less than adequate clothing in Mountain, Hills and Terai were corresponding 68 percent, 62 percent, and 51 percent with significant differences. There were 59 percent of the households reporting to have less than adequate health care in total. Nearly 73 percent of the households responded that their income was less than adequate. 51 percent of households in urban and 74 percent in rural areas had less than adequate income.

Nepal has embraced human development as an over arching goal. To this end, the country has made significant improvements in education, health, and other social sciences after 1990. However, the level of human development in Nepal remains one of the lowest in the world. In terms of human development, Nepal was ranked 129<sup>th</sup> in 174. HDI (Human Development Index) value for Nepal in 2001 was 0.480 indicating a low level of human development even in South Asian context. All countries in South Asia were better than Nepal in terms of HDI value except Bangladesh and Bhutan with the corresponding HDI value by 0.470 and 0.477<sup>74</sup> but HDI value of Nepal in 2004 was 0.504 and the rank of the country was 140.The following strategies have been taken in the10<sup>th</sup> plan for alleviating poverty through employment generation: -

<sup>73</sup> CBS, (1997)

<sup>&</sup>lt;sup>74</sup> Nepal Government/Ministry of Education and Sports (2002), 'Human Resource Development' 2002,

- To increase employment opportunities.
- To provide the access of the poor to employment opportunities.
- To launch income generating and employment targeted programs for backward classes and areas.
- To increase the productivity of employment opportunities in order to augment the income generation from them.

# 2.1.3 Population Trend

Rapid population growth rate is one of the basic features of developing economy like Nepal. The population age group structure, growth rate of population, active population, proportion of skilled and unskilled labour, proportion of active and inactive population etc. determine the economic development of the country. The population size, growth rate, density of population in period 1911-2001 has been recorded.

Census Year	Total population	Annual growth Rate	Persons/sq. Km.
1911	5,638,749	-	38.31
1920	5,573,788	-0.13	37.87
1930	5,532,574	-0.07	37.59
1941	6,283,649	1.16	42.69
1952/54	8,256,625	2.27	56.10
1961	9,412,996	1.64	63.96
1971	11,555,983	2.05	78.52
1981	15,022,839	2.62	102.07
1991	18,491,097	2.08	125.64
2001	23,151,423	2.25	157.36

Table 2.2: Population Size, Growth Rate and Density, Nepal 1911-2001

Source: Population Monograph of Nepal, vol.1, table no. 2.1, CBS/ HMG (current Nepal Government), Kathmandu Nepal , 2003.p38

The population of the country did not grow at a uniform rate. However, the period 1911-1930 is known as abnormal situation in the Nepalese census history when the population growth rate had declined and main reasons were, the effect of worldwide epidemic and the heavy casualties suffered by

Nepalese army in the First World War<sup>75</sup>. In the census 2001, Nepal's population reached 23.2 million with annual average growth rate of 2.25 percent in 1991-2001. In all, the population density of the country was less than 40 persons per square kilometers upto 1930. By, 2001 the figure had risen to 157 persons for the same area. After 1961 annual growth rate shows that the population of Nepal has been increasing very rapidly with more than 2 percent per annum.

## 2.1.4. Industrial Sector

Industrialization has a significant part to play in the long-term development of the country. It is one of the best training grounds for skill development and also an important source of structural change and diversification, and it can raise the flexibility of the economy and reduce dependence on external forces. It also produces employment, foreign exchange, and domestic savings.

Development of the industrial sector has been accorded priority for generating employment opportunity, and developing sustainability in the export in a way to contribute to the domestic economy. However, this sector has not been able to make the desired contribution to the national economy. The interaction of structural weakness with poor or underdeveloped resource endowment linked with underdeveloped infrastructure, small markets, geographical location, and lack of skill manpower, slow and ineffective privatization process, inadequate foreign investment and absence of technological advancements are the main factors of the slow industrial development in Nepal.

In order to maximize the contribution of industrial sector in the gross domestic product, it has been clearly felt that there is a need to make the private sector more active, efficient, reliable and commercial by having expansion and diversification in the industrial production. For achieving industrial upliftment, it has become necessary to be capable in the international market by having

<sup>&</sup>lt;sup>75</sup> Population Monograph (2003)

qualitative and competitive product through timely policy reforms and process reform along with legal provisions.

Even some changes have been noticed in the industrial structure. Contribution to the gross domestic product of the industrial sector has not exceeded 10 percent. In terms of industrial units, more than 90 percent industries belong to cottage and small-scale industry category. Such industries have contributed about 76 percent to employment and 49 percent to the value addition. Due to gradual decline in the growth rate of industrial production indicators during the Ninth Plan period, industrial production was to have increased at the annual average rate of 2.6 percent only and thus target of increasing industrial production annually at the rate of 13 percent could not be achieved. The contribution of industrial sector in gross domestic product remained at less than 10 percent against the targeted 14 percent, while it was estimated to create 350,000 additional employment opportunities during this period under the industrial sector. Of this target, only about 151,000 employment opportunities could be created and the target as such could not be met. This achievement becomes only 43 percent of the target (10<sup>th</sup> plan).

Annual percentage change of GDP was not satisfactory in the whole period of around one decade. It was negative i.e., decreased, in FY 2001/02. It was the emergency period in Nepal when the inter conflict reached climax with political instability. The figure of GDP in the time series was about 5 percent only but in China and India it was around 10 percent and 8 percent respectively. The major contributor to GDP in Nepal is agriculture sector which has shown a declining trend. The other sector occupying a significant share in the GDP is non-agriculture sector and its performance is also not very encouraging. Internal conflicts and resulting problems in law and order situation had squeezed the non-agriculture economic activities, which showed some improvement after Maoist announced ceasefire <sup>76</sup>.

<sup>&</sup>lt;sup>76</sup> Economic Survey, 2005/2006 p6

Fiscal/Year	GDP	Agriculture sector	Non-agriculture sector
1994/95	2.7	-0.9	5.1
1995/96	5.4	3.7	6.5
1996/97	4.8	4.2	5.2
1997/98	3.3	0.8	4.7
1998/99	4.5	2.8	5.3
1999/00	6.1	4.9	6.8
2000/01	4.9	5.5	4.5
2001/02	-0.3	2.2	-1.9
2002/03	3.1	2.5	3.5
2003/04	5.1	3.9	2.9
2004/05	3.0	3.5	2.8
2005/06	3.3	1.1	4.6

Table 2.3: Gross Domestic Product (Annual percentage change)

(At factor cost of 1994/95)

Source: Economic Survey 2005/06, table1 (e), pp7-8, 2006/07 table 1(e), p 10, GON/ Ministry of Finance, Kathmandu, Nepal.

# 2.1.4.1 Privatization of public enterprises

Privatization has been accepted as important component of the Liberal economic policy. The government has either privatized or liquidated a total of 23 public enterprises<sup>77</sup>.

Objectives of the Tenth Plan related to industrial activities are as follows: -

- To increase contribution of industry to gross domestic product through expansion and increase in industrial production by having necessary incentive and support to the private sector.
- To enhance industrial competitiveness by having foreign investment and appropriate technology as much as possible in the areas of comparative advantage.

<sup>&</sup>lt;sup>77</sup> Economic Survey, 2002/03

• To reduce poverty by increasing income and purchasing poverty rural people with a view to create employment in rural areas through cottage and small industries and micro enterprises.

# 2.1.4.2 Long-term Concept

The long-term concept of this sector will be to achieve sustainable industrial development through emphasis on private sector by having enhanced competitiveness in the areas of competitive advantage and mitigation of negative effects on environment. Enhancement of production and productivity and ensuring the environment conducive to industrial development through creation of industrial environment will be the long-term target.

# 2.1.4.3 Constraints and challenges

Major internal causes like, weak security in industrial sector, excessive investment in the industries having lesser value addition, lack of appropriate control in quality standard and worldwide economic recession and cold events have led to decrease in demand causing negative impact in this sector. Hence, industrial production has been affected as well significantly creating serious problem through the increase in the number of unemployed persons. Similarly, lack of industrial development based on feasibility, not receiving foreign investment sufficiently, non-extension of industries in the rural area, lack of industrial development by identifying areas of competitive advantage, weak competitive capacity, weak forward and backward linkages, nondevelopment of national resource, means, manpower and material have been the major problems of this sector.

## 2.1.5 Extreme Disparity

There is extreme disparity in the distribution of wealth and income. Land is the major asset and the source of income in Nepal. According to the NLSS (Nepal Living Standard Survey Report) 1996 the concentration index for the total land operated was 0.54. This reflects the presence of large number of small farms in the economy. The bottom 40 percent of agricultural households operated only 9 percent of total agriculture land area, whereas the top 6 percent of

agricultural households, occupied more than 33 percent of the total land. In the same report, there were 40 percent small farmers operating less than 0.5 hectare and 13 percent large farmers with 2 hectare and more land. There were more small farmers in the hills than in the mountains and the terai. The largest 13 percent of agricultural households operated 48 percent of agricultural land in the country. In rural areas, 14 percent people enjoy 52.07 percent of the total income, but 49.24 percent people have only 12 percent of total income. In urban areas, 15 percent people enjoy 53.55 percent of income but 30.57 percent people have only 7.36 percent of total income. A comparative study of income or consumption inequality in some selected neighbour South Asian countries has been shown in Table 2.4.

Table 2.4 depicts that poorest 10 percent in the share of income or consumption in Nepal is 3.2 percent, which is the lowest among the five countries. On the other side, the richest 10 percent in the share of income or consumption is 29.8 percent, which is the highest figure among these countries. In inequality measures, the gap between the richest 10 percent to the poorest 10 percent is 9.3 percent, which is again the largest figure in corresponding countries. Similarly, Gini index shows that Nepal has more inequalities after India among the five neighbour countries of South Asia.

Country	Survey Year	Share of income or consumption (%)				Ineq Meas	Gini Index	
		Poorest 10%	Poorest 20%	Richest 20%	Richest 10%	Richest 10 % to poorest 10%	Richest 20 % to poorest 20%	
Nepal	1995/96	3.2	7.6	44.8	29.8	9.3	5.9	36.7
India	1999/2000	3.9	8.9	41.6	27.6	7.0	4.7	63.0
Pakistan	1998/99	3.7	8.8	42.3	28.3	7.6	4.8	33.0
Bangladesh	2000	3.9	9.0	41.3	26.7	6.8	4.6	31.8
Sri Lanka	1995	3.5	8.0	42.8	28.0	7.9	5.3	34.4

Table 2.4: Income or Consumption Inequality in South Asian Countries

Source: Human Development Report, 2004, New York.

#### 2.1.6 Unemployment

Employment is the main means of transforming economic development into an opportunity for poverty alleviation, providing employment to povertystricken masses to reduce poverty and make economic development efforts more sustainable. It also strengthens social and political stability. In the absence of economic growth efforts, mere employment targeted programmes cannot provide employment opportunities to the whole labour force. Hence, employment should be taken as an important link in the process of economic development and consideration should be given to how more employment opportunities can be generated in the development.

Recently the rate of unemployment has increased more rapidly in Nepal. However, there is no sufficient information about employment situation in Nepal. From the available estimates of unemployment, the rate of unemployment in the country was at 3.5 percent. According to the NPC-1977, the rate of unemployment in the country was 5.6 percent. Among them 5.3 percent were males and 6 percent were females and corresponding rural and urban areas were 5.6 percent and 6 percent. According to the household budget survey of 1984/85 the rate of unemployment in the country was 3.1 percent-7.7 percent for urban males, 9 percent for females, 2.2 percent for rural males and 3.2 percent for rural females. From these figures, it appears that unemployment is a serious problem in urban areas but not in the rural areas in Nepal.

LSMS (Living Standards Measurement Survey)-1995/96 shows that the rate of unemployment was 4.9 percent at national level. 8 percent for urban males, 5.3 percent for rural males, 8.8 percent for urban females and 4 percent for rural females was recorded in this report. Furthermore, these figure of unemployment concluded that a more serious problem was seen in urban females as compared to rural areas but did not appear to be consistently more affected by unemployment than males.

Similarly, in CBS-1999 on the Report of Nepal Labour Force Survey, shows that unemployment rate was much lower in the west of the country than elsewhere and highest unemployment rates were to be found in urban areas. Unemployment rate in eastern terai was 13 percent where at Kathmandu valley it was 10 percent.

Total population of age 10 years and above in Nepal is 16,770,279 according to current population census 2001. Among them 63.4 percent are economically active and remaining 36.6 percent are not economically active. Among the economically active 58.2 percent are usually active, that is, number of months of employment or unemployment is equal or greater than six months and remaining are 5.2 percent known as not usually active. Among the usually active 53.1 percent are employed. Employed is defined as number of months of employment is greater than number of months of unemployment. On the other hand, the number of months of unemployment being greater than employed is known as unemployed.

The figure of unemployed is 5.1 percent. Among the unemployed 1.06 percent worked for some time and the remaining 4.07 percent did not work at all.

Conous / ourses	Unemployment rate*						
Census / survey	Total	Male	Female				
2001 / census	8.1	7.0	9.2				
NLFS 1998/99	5.2	4.1	6.3				
NLSS 1996	4.9	5.6	4.1				

Table 2.5: Comparison of Unemployment Rate by Sources of Estimates

\* Number of unemployed persons per 100 economically active populations Source: CBS, population census 2001; CBS, NLFS 1998/99; NLSS 1996.

The unemployment rate of population in 2001 is 8.1 percent, which is the highest rate than in the other two previous surveys. Unemployment rate of males is 7 percent and that of females is 9.2 percent in 2001. Hence, the unemployment problem is showing rising trend in Nepal (Table 2.5).

The population under poverty has reached from 3.5 million to 5 million in the last decade. The later figure represents 23 per cent of the total population<sup>78</sup>.

<sup>&</sup>lt;sup>78</sup> The Rising Nepal, National Daily, Feb 10, 2003, Kathmandu.

This is enough to understand unemployment situation of the country. Unbalanced opportunities, rapid population growth and lack of modernization in agriculture are a few reasons behind this. Nearly 60 per cent of the world's labour force would be in Asia by 2010, with China alone making one quarter of the global labour force. Thus, the greater part of the jobs that needs to be created by 2010 must come in Asia and Sub-Saharan Africa, the ILO report suggests. "Only through pro-jobs and pro-poor policies can we address this growing employment crisis and place decent work at the heart of economic and social policies," the report says.

Policy makers should focus on measures to secure and spread the recovery and ensure faster growth for work opportunities. The ILO suggests employment intensive investment. It has stressed promotion of private sector for creating more jobs. Furthermore, policy makers need to focus on reducing the vulnerability of developing countries

## 2.1.7 Unexploited resources

Nepal has mineral, forest and water resources. Different types of minerals are found in different parts of the country. Because of the lack of scientific and extensive geographical survey, the actual statistics of the mineral resources are not available. However, based on preliminary survey, iron, copper, limestone, marble, slate, mineral oil and gas, coal, nickel, sulphur, graphite and dolomite exist in the country. The economic exploitation of these minerals have been limited till now because of lack of capital, technical know-how and transportation, etc. Copper is known to be available in more than 65 places, lead and zinc deposits in over 30 places and iron ores are reported from about 40 places. Their cost benefit analysis is not yet known.

Land resources and human resources are also important. Forests have not been used and exploited on sustained yield basis. The share of forests in the country's GDP is about 15 percent which also remains the source of livelihood for a large section of the population. Efforts have not also been made to ensure the utilization of forests along scientific lines for industrial processing purpose. Because of the reckless and rampant destruction of the forest, the areas under forests have decreased from 50 percent of total areas to 29 percent having adverse effects on Geo-physical stability. In Nepal, water resources are adequate to provide irrigation facilities to 2.65 million hectare and to generate not less than 83 thousand megawatt of hydropower. But so far less than 40 percent of irrigation potential and one percent of hydropower potential have been exploited. Electricity is available to about 9 percent of the population. Water delivery has proved to be far behind the stated capacity and it also remains unexploited at skill level.

#### 2.1.8 Lack of Infrastructure

Infrastructure is pre-requisite for economic development of Nepal. It has only 16835 kilometers of road including 7534 kilometers of earthen roads, which is extremely inadequate for transportation purpose, especially in view of the mountainous nature of Nepalese terrain. There are no river navigation facilities. There is only one and small segment railway Janakpur – Jayanagar railway, 52 km in length, and only one ropeway system, Bhaise – Teku ropeway, covering a length of 42 km of cable way. As it remains out of service lacking proper repair and maintenance. HMG has decided to stop its operation. A cable car service spanning of 3.1 km between Kuringhat of Chitwan district and Manakamana of Gorkha district is built and operated by private sector. The trolley bus service was established in 1974 and its length is 13 km route between Tripureshwor and Suryabinayak in Kathmandu valley. 60 district headquarters have access to road network 10<sup>th</sup> plan has targeted to extend this access to 70 districts.

#### 2.2 Chitwan District

## 2.2.1 Introduction

Chitwan District is one of the seventy-five districts of the country. It is also known as 'Rapti Valley'. The district covers 2238.39 square kilometers in Central – Southern Nepal. In world map, the district stretches between 83°54'45" east to '84°48'15" east longitude and between 27°21'45" North to 27°52'30" North Latitude. Dhading District, Makwanpur District and Parsa

District in the east, Nawalparasi district and Tanahun District in the west (Narayani River), Gorkha District and Dhadhing district in the northern and Bihar state of India in the South make the boundary of the district.

# 2.2.2 Topography and political division

According to rural-urban division of this district, there are two municipalities in urban area covering 102.48 sg. km., which is 4.58 percent of total land of the district whereas in rural area, there are thirty six VDCs covering 1,227.12 sq. km. and it is 54.82 percent of the total land of this district. The area of Chitwan National park is 750 sq. km. and other forest is 158.79 sq. km. Similarly, in physical division, plain, hills and forest areas of Chitwan district are 867.75 sq. km. (38.75 percent), 462.25 sq. km. (20.65 percent) and 908.79sq. Km.(40.60 percent) respectively. The District varies in topography and physiographic feature as the country. The attitude rays between 141 meters to 1100 meters above the sea level.

Table 2.6: Distribution of Chitwan District

Regions	Area (in sq km)	Percent
Plain*	867.35	38.75
Hills*	462.25	20.65
National park and other forest	908.79	40.60
Total	2,238.39	100.0

Source: District profile of Chitwan, 2002 and \* Cultivated Land only

Table 2.7: Rural/Urbar	Division o	of Chitwan	District
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Sector	Area (in sq km)	Percent
Rural (36 VDCs)	1,227.12	92.29
Urban (2 Municipalities)	102.48	7.71
Total	1329.6	100.00

Sources: - District profile of Chitwan, 2002

The data collection on population before 1971 in this district was from informal source. So, due to insufficient source, it is difficult to draw exact conclusion about population. Actually, this district came into existence of development after the application of Rapti Valley Development Project (1957) for the settlement of immigrants who came from other districts of Nepal. After the facilities of transportation, communication, irrigation for agriculture, eradication of malaria, control of wild animals, this district became suitable for settlement.

## 2.2.3 Population status

Census	Households	I	Populatior	n	Average	Growth	Sex
year		Total	Male	Female	household	rate	ratio
1920		20520				-	
1941		26239				1.12	
1954		42724				4.06	
1961		67882				5.79	
1971		183644	94404	89240		9.95	1.06
1981	41414	260571	133349	127222	6.29	3.50	1.05
1991	65147	354488	175656	178832	5.44	3.08	0.98
2001	94319	470713	233044	237669	4.99	2.84	0.98

Table 2.8: Distribution of Population of Chitwan District Since 1921

Sources: - District profile of Chitwan, 2002

Table 2.8 shows that after 1981 the population growth rate has increased with number of household but household growth rate is higher than population growth rate. During 1981 to 1991 the population growth rate is 3.08 whereas household growth rate is 5.44. Average household size is continuously decreasing; similarly, sex ratio also has become adverse to females.

Table 2.9:Population 10 Years of Age and over byEconomic Activity and Sex

Area	Economically Active			Economically Inactive			
	All	Male	Female	All	Male	Female	
Nepal	10637243	5971024	4666219	6133037	2359552	3773484	
	(63.43)	(71.68)	(55.29)	(36.57)	(28.32)	(44.71)	
Chitwan	208516	119723	88792	154058	59489	94570	
	(57.51)	(66.81)	(48.42)	(42.49)	(33.19)	(51.58)	

Sources: Statistical Year Book of Nepal 2003, CBS Note: the figure within parentheses are %.

Table 2.9 shows that active population at national level of both sexes in latest census (2001) is 63.43 percent whereas male is 71.68 percent and for female is 55.29 percent But in Chitwan District, active population of male and female is 66.81 percent and 48.42 percent respectively, whereas in all, it is 57.51 percent. In conclusion, people want to give birth to more boys as compared to girls due to traditional concept.

 Table 2.10: Distribution of Active Population Trend in Chitwan District

 (percent)

Economic	1	1981		1991	2001	
Approach	Male	Female	Male	Female	Male	Female
Active	70.0	30.1	63.6	47.5	66.81	48.42
Inactive	30.0	69.1	36.4	52.5	33.19	51.58

Sources: - Nepal Districts Profile, 1999

Share of active population of male was greater than female in Chitwan District. Percentage of active population of female in 1991(36 percent) was greater than in census 1981 (30.1 percent), but the active population of male had decreased in 1991 as compared to 1981. Active population of male in Chitwan District according to table-2.10 in 2001 was 66.81 percent but in 1991 it was 63.6 percent, hence the active population in 2001 was greater than 1991. Similarly, active population of female in 2001 (48.42 percent) was greater than the previous census 1991 (47.5 percent).

Table 2.11: Population	n in Cl	hitwan by	Location,	Area,	Density	and	Sex
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Sector	Population		Area in	Density	
	Total	Male	Female	square km	
Rural	341544 (72.55)	167492 (71.87)	174052 (73.23)	1227.12 (92.29)	278.33
Urban	129169 (27.45)	65552 (28.13)	63617 (26.77)	102.48 (7.71)	1260.47
Total	470713	233044	237669	1329.60	354.03

Sources: - District profile of Chitwan, 2002. Note: - the figure within parentheses are percent.
The distinction between urban and rural area is based on the official classification made by the Ministry of Local Development. Accordingly, the VDC lies in rural area whereas municipality lies in urban area. In Chitwan District, there are 2 municipalities and 36 VDCs (Village Development Committees).

Total area of this District is 2,238.39 square km and total population of the latest census (2001) is 470,713. Hence, the population density is 210 persons per sq.km, 40 percent of this district is covered by national park and wildlife conservation, so excluding forest area; the actual population density of this district is 354 persons per sq.km. Among the total population 470,713; 27.45 percent live in urban area and corresponding land area is only 7.71 percent. 28.13 percent male of this district live in urban area that is greater than those females who live in urban area (26.77 percent). The Table 2.11 shows that population density of rural and urban area is 278 and 1260 respectively. Economic development depends on the economic growth and employment situation of the district. The pace of development not only depends on human resources but also on activities of agriculture, industries, business, transport, communication etc.

Age	1991			2001				2011*				
Group	Female		Male		Female		Male		Female		Male	
	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
Total	178832	-	175656	-	237669	-	233044	-	315593	-	309451	-
0-9 yrs	50073	28.0	50940	29.0	64171	27.0	65252	28.0	75742	24.0	86646	28.0
10&more	128759	72.0	124716	71.0	173498	73.0	167792	72.0	239851	76.0	222805	72.0

Table 2.12: Sex-Wise Distribution of Labour Force, Chitwan

Sources: - District profile of Chitwan, 2002; \* projected

In Table 2.12, the total population of female in census 1991 was 178,832 and among them 128,759 i.e., 72 percent was active population but in 2001 is 73 percent and expected active population of female for 2011 will be 76 percent. It shows that the active population of female is increasing since 1991. Similarly, the active population of male in 1991, 2001, and 2011 are

71percent, 72percent and 72percent respectively and this increasing trend is less than the growth rate of female. Among 253,475 of total population in 1991, the economically active population of female was 50.79 percent whereas for male it was 49.21 percent. Similarly, in 2001, female is 50.83 percent and male is 49.17 percent.

The age grouped 0-14 years and above 65 years, from the population here defined as dependent population. The dependence ratio i.e., inactive population, is very high but it is showing decreasing trend (Table 2.13).

Year	Children (0-14)	Old age (above 65)	Total
1991	76.8	5.8	82.6
2001	71.4	6.3	77.7
2011	63.9	7.0	70.9

 Table 2.13: Dependency Ratio in Chitwan District (percent)

Source: District profiles of Chitwan, District Development Committee Office, 2004, p 22

## 2.2.4 Ownership and size of agricultural land, Chitwan

Agriculture is the backbone of the country's economic development where majority of the population depends. This sector has been a major source of production, income and employment opportunities in Chitwan as in Nepal. Its development is ultimately based on the land holding distribution. Size and ownership of agricultural land distribution is given below in tabular form:

According to this source (Table 2.14) total household was 95,180 and among them 685 households (0.72 percent) were landless families. Similarly, largest numbers of households i.e. around 25 percent belong to the size of holding group 0.5 to 1 hectare. Hence, small size of land holding is greater in number as compared to other groups. In other words, more than 55 percent number of households are holding less than 1 hectare. There is no sufficient information about productivity and related classification of land in this district. According to the latest information, among the cultivated land, only 53.24 percent have the facility of irrigation.

Ownership of land (in hectare	Percent	Cumulative percentages
Landless	0.72	0.72
Less than 0.2	10.08	10.80
0.2-0.5	20.63	31.43
0.5-1.0	24.78	56.21
1.0-2.0	19.69	75.90
2.0-3.0	6.43	82.33
3.0-5.0	16.75	99.08
5.0-7.0	0.51	99.59
7.0-10.0	0.26	99.85
10.0 and more	0.15	100.00

Table 2.14: Size and Ownership of Agriculture LandDistribution, Chitwan

Source: - District Animal Service Office, Chitwan District Profile, 2001

## 2.2.5 Industrial activity in Chitwan District

The district, like the country, needs to strengthen its economy through the development of industrial sector. However, the share of industry in Nepal's GDP is only 10 percent (Economic Survey 1998/99) and the proportion of Labour force involved in industry is minimum. At present, the expansion and development of productive industries is indispensable for the country's over all development. The existing population depending on agriculture should be diverted to non-agriculture sector. It could contribute not only to resolve the problems of unemployment and underemployment but also help to give momentum in the process of economic development. In this context, the industrial activities in this district are very slow. Among the active population, only 3.06 percent are employed in the industrial sector. Large numbers of cottage industries are established in Nepal, which is the unique character with the Nepalese economy. Same reflection can be found in this district.

Types of manufacturing	Number of registration	Number of renewed	Number of employees
Oil and grain mill products	711	472	1180
Bricks and stone products	44	33	1732
Construction services	385	242	540
Leather and leather products	15	4	20
Plastic and polythene products	36	24	210
Soap	5	1	4
Readymade clothes, clothes and pashmina products	111	61	260
Woolen carpet and rugs	16	2	40
Hotels and tourism	138	115	1150
Wood and steel furniture	201	135	83
Live animals and agriculture firms	15	12	70
Bee – keeping	19	16	64
Iron and steel basic industries	261	168	730
Cement, lime and plasters	174	83	360
Animal feeds	78	56	224
Poultry farming	87	87	375
Bakery, spices, noodles, biscuits	115	67	232
Dairy products	8	6	30
Stationary	22	15	45
Candle	11	5	20
Knitting mills	17	8	30
Printing, publishing and film industries	48	36	170
Jewellery and related articles	16	13	31
Miscellaneous	234	123	500
Total	2767	1784	8130

Table 2.15: Pattern of Cottage Industries in Chitwan, 2001

Table-2.11 shows employment situation of cottage industry in Chitwan District, 2001/02

Most of the cottage industries are unstable, in primary stage and establishments are in rural area. However, they were able to employ only 8130 persons in 2001/02. According to the Industrial Census of CBS, 1997,

the number of manufacturing industries engaged 10 or more were 71 in this district. 3933 numbers of workers were employed where investment of fixed capital was NRs 432 million and the total production was NRs 1502.4 million whereas their value added was NRs 849.4 million.

 Table 2.16: Classification of Manufacturing Industries, Chitwan

(NRs	in	mil	lion)
(1413).		11111	non

Name of main Industrial group	No. of establishments	No of persons engaged	No of workers	Wages and Salary NRs	Fixed Capital NRs	Production NRs	Value Added NRs
No of units Less than NRs 10 Million of fixed Capital	62	3234	3068	29.4	81.0	383.4	116.4
No of units Rs 10-50 Million of fixed Capital	6	314	308	6.0	102.5	164.2	86.2
No of units having Rs50 Million or above of fixed Capital	3	385	379	10.5	248.5	954.8	646.8
No of units of 10 or more persons engaged	71	3933	3755	45.9	432.0	1502.4	849.4

Source : HMG, CBS Industrial Census 1997

Table 2.16 shows that the industrial investment in the fixed capital with less than NRs 10 million is known as small-scale industry according to industrial classification in Nepal. The number of industries in this group was 62 in Chitwan District. However, the number of industries in large-scale group was only 3, but total production was NRs 954.8 million and value added was NRs 646.8 million. From this group, 63.55 percent and 76.15 percent of total industrial production and total value added respectively was obtained in Chitwan District in 1997.

# Conclusion

This chapter has provided the basic features of Nepal economy and the district of Chitwan. Nepal is one of the least developed and landlocked countries in Asia. Though it has sufficient hydro and mineral resources but these have not been properly utilized and commercial potential of these resources deposits are not yet known. Nepal Living Standard Survey 1996 estimated the poverty line at 42 percent level but in NLSS 2003/04 this level declined to 30.85 percent which shows the same improvement in this regard. However, the overall poverty is rural oriented especially hilly regions of the mid and far-western development regions. HDI value for Nepal in 2001 was 0.480 indicating a low level in South Asian Context. According to HDR 2004, the HDI value of Nepal was 0.504

The population growth rate in Nepal has been increasing very rapidly with more than 2 percent per annum. On the other side, the industrialization has significant role to play in the long-term development of the country to provide employment opportunities. However this sector has not been able to make the desirable contribution to the national economy due to interaction of structural weakness, poor or under developed resource endowment linked with underdeveloped infrastructure, small markets, geographical location, and lack of skilled manpower, slow and ineffective privatization process, inadequate foreign absence of technological upgrading, political instability are the main factors of the slow industrial development in Nepal. GDP growth rate, agricultural growth rate and non-agriculture growth rate, each of these are found to grow in the range of around 5 percent per year in recent years which is low. The privatization has been accepted as important component for liberal economic policy for the economic development of the country.

Similarly poorest 10 percent have consumed 3.2 percent and richest 10 percent have consumed 29.8 percent, which is the largest figure among the countries (Table 2.4). Unemployment is a serious problem for the country. It is increasing more rapidly in Nepal. However, there is lack of sufficient information about employment situation in Nepal. From the available

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estimates the unemployment rate of population in 2001 is 8.1 percent which is the highest so far. Nepal has mineral, forest and water resources in different parts of countries. Human resources also remain unexploited. Infrastructure is the prerequisite factor for economic development. There are extremely inadequate transportation facilities.

Chitwan is one of the seventy-five districts, which is also known as seventysixth district and situated in mid-southern part of Nepal. There are two municipalities and thirty-six VDCs in the district. After the eradication of malaria, the settlement for the immigrant people became wide and suitable. The settlement began under 'Rapti Valley Development Project- 1957'. With the pace of development the Indian people specially came for business purpose having temporary settlements in the district.

The population growth rate of the district in 1952/54 was 4.06 percent and it reached to the highest rate 9.95 percent in 1971. Thereafter, it started to decline and in latest census it was 2.84 which is still above the national level (2.24 percent per annum) of Nepal. Population each of male and female of age 10 years or more in 2001 was just greater than seven-tenth which was the highest figure of each sex as compared to the previous censuses. Moreover, dependency ratio of children in this district is decreasing but for old age it is increasing. More than 55 percent households are holding less than one hectare land which shows that small size of land holding is greater in the district. Like Nepal, the larger number of small and cottage industries are established but only 3.06 percent of active population is employed in the industrial sector in the district.

In the following chapter we shall highlight the pattern of poverty and unemployment situation in Nepal, which plays a basic role in determining the nature of informal sector activities.

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# CHAPTER-III PATTERN OF POVERTY AND UNEMPLOYMENT IN NEPAL

This chapter deals with the various dimensions of poverty and unemployment in Nepal. Here our objective is to know the pattern of poverty and unemployment in Nepal which eventually acts as the background of informal sector. In order to understand the nature of poverty, different measures of poverty which had been taken in different time periods and the dependent trends have also been detailed. Similarly employment situation in Nepal, labour force, unemployment rate, employment opportunities and some estimates of informal sector have been briefly explained.

# 3.1 Pattern of Poverty in Nepal

The level of income, human development indicators and different aspects of social inclusion are considered as the basis for analysis of different poverty dimensions. The poverty line is determined in terms of the adequacy of income whether or not it is sufficient to purchase the goods and services of basic needs. The poor is identified after taking into account all the goods and services of the basic needs, and subsequently identifying their prices. If the income does not meet the spotted prices, the person is identified as poor. Basically this concept is used to explain the pattern of poverty in Nepal.

# 3.1.1. Introduction

Poverty in general has been defined in terms of income or food consumption, food per capita, requirement of energy etc. Poverty is thus inability of attaining basic minimum needs of foods, clothing, and shelter in order to ensure continued survival. Poverty has many facets and manifestations. It is not only an economic but also human problem. Sometimes the complexity of poverty is not properly understood.

Poverty, as a vicious circle, is traditionally deep-rooted problem in Nepal. Poverty is providing a fertile ground for the disorder which in turn is pushing the economy into a down spiral. Since it is complex and chronic, routine attempts will be insufficient to get rid of it. As the economy is based on agriculture, and the agriculture sector is based on erratic monsoon, the production and productivity are very low and uncertain.

#### 3.1.2. Poverty by sector

In the past, various agencies had conducted surveys and studies to identify the poverty and its level in Nepal applying different bases and definitions. 'A state of economic, social and psychological deprivation occurring among people or countries, lacking sufficient ownership control or access to resource to maintain minimum standard of living'<sup>79</sup>

Poverty means more than lower level of income. It is a state in which opportunities and choices needed to human development are denied to lead a long healthy, creative life and to enjoy a decent standard of living, freedom, dignity, self respect, and respect to others.

NPC-1977, individual In poor person was defined as an with income/consumption levels below the physiologically required level and had also defined poverty in terms of basic needs. Thus, poverty is deprivation of material requirements for minimum acceptable fulfillment of human needs. According to minimum subsistence criteria of poverty, 34.3 percent in rural, 19.9 percent in urban and 33.7 percent of households were below poverty line whereas 32.1 percent in rural and against 20 percent in urban and 31.5 percent of population were below poverty line. 41.2 percent in rural, 22.1 percent in urban, 40.3 percent at national level of households were below poverty line in Nepal according to minimum subsistence income criteria. On the other hand 37.2 percent in rural, 17 percent in urban and 36.2 percent at national level of population were below poverty line.

<sup>&</sup>lt;sup>79</sup> NHDR (1998), 'Nepal Human Development Report' p 125, Nepal South Asian Centre, July 1998, Kathmandu, Nepal

# 3.1.3. Incidence of poverty

After reprocessing the data of 1984/85 in1989 the poverty line was calculated. The population below the poverty line was defined under certain assumptions.

First, the poverty line was defined by requirement of to supply of the minimum caloric requirement 2250 Kcals, at 1988/98 price level. This amounted to Rs 210 per person per month in the Hills and Rs 197 in Terai. It suggested that about 40 percent of population was poor in absolute way.

Second, poverty line was defined in terms of the internationally accepted threshold of US \$ (Dollar) 150 per capita per annum. The proportion of population with an income level below the poverty line was estimated at 71 percent at the national level.

The third approach, the definition of the term poor by Michael Lipton i.e., as those whose expenditure on food consumption is above 70 percent or more of total expenditure. This suggested that two-thirds of the population were below the poverty line

Another study of poverty, is based on data of 1992<sup>80</sup> and evaluated household levels of income and expenditure based on prevailing prices without adjusting for the inter-district variation. Incidence of poverty measurement was based on either in terms of per capita income or consumption expenditure or in terms of food expenditure

Region	Criteria							
	Per capita income	Per capita consumption expenditure	Per capita food expenditure					
Terai	34.3	34.0	34.0					
Hills	64.0	64.0	64.0					
Mountain	64.2	64.1	63.9					

Table 3.1: Incidence of Rural Poverty by region underDifferent Criteria, 1992

Source: Nepal Human Development Report-1998, UNDP

<sup>&</sup>lt;sup>80</sup> Chhetri, Devendra. (1996), 'Some Aspects of poverty in Nepal, Microanalysis' Kathmandu ,Nepal , Agricultural Projects Services Centre.

In Table 3.1, rural poverty in Terai was the lowest whereas by any criteria, it is the highest and almost equal in hills and mountain regions of Nepal which is nearing two-thirds of the total population there.

Ecological Zone	Poverty incidence-percentage People Living Below Poverty Line	Poverty Gap- Depth/ Intensity of poverty	Severity of Poverty
Mountain	56.0	18.5	8.2
Hill	41.0	13.6	6.1
Terai	42.0	9.9	3.4
Urban	23.0	7.0	2.8
Rural	44.0	12.5	5.1
Nepal	42.0	12.1	5.0

Table 3.2: 1995/96 Survey: Income Poverty Indicators (Percent)

Source: World Bank (1999) Nepal: poverty at the Turn of Twenty First Century.

In 1995/96, 44 percent of the rural population was living in poverty against 23 percent in urban area. The poverty line was derived assuming NRs. 4404 per person per year. People living below Poverty Line in Mountain, Hill and Terai were 56 percent, 41 percent, and 42 percent respectively whereas national level was 42 percent. The poverty gap analysis shows how far below the poverty threshold income/consumption level the poor are concentrated. Larger the poverty gap greater is the depth/intensity of poverty. The severity by measuring the poverty gap in construction, gives greater weight to those who are further below the poverty line. Again, higher the numerical value of the index, the deeper and severe is poverty. The estimation shows that while the poverty gap and poverty measures are only 7 percent and 2.8 respectively for urban areas, the corresponding values are over 12 percent and 5 percent for all of Nepal and are far higher for the hills (13.6 percent and 6.1 percent) and the mountain areas (18.5 and 8.2 percent respectively). Thus, all the three estimations (incidence, intensity and severity) suggest that poverty is more rampant, deeper and severe in rural (as compared to urban) areas and that as it is much worse in the Hills and Mountains as compared to both urban as well as rural Tarai. According to CBS-1996, incidences of poverty by rural/urban division were 47 percent and 18 percent respectively at national level. Poverty estimates based on an identical level of daily per capita minimum caloric requirement of 2250 Kcals were presented at an annual rate of more than 3 percent and the number of absolute poor was almost doubled in the past 20 years.

Table 3.3: Trend in Incidence of Poverty by Rural/ urban Residence

(Percent)

Source	Year	Rural	Urban	Nepal	Population ('000)	Annual Change
NPC	1977	37.2	17.0	36.2	4897	-
MPHBS	1985	43.2	19.2	42.5	6852	5.00
World Bank/UNDP	1989	42.0	15.0	40.0	7694	3.07
CBS	1995/96	47.0	18.0	45.0	9507	3.36
CBS	2003/04	34.62	9.55	30.85	7513	-2.62

Source: Nepal Human Development Report-1998, UNDP, Poverty trends in Nepal (1995/96 and 2003/04), CBS, September- 2005, Nepal

Table 3.3 shows that 4,897,000 persons were suffering from poverty according to the NPC-1977. In 1985 Nepal Rastra Bank through MPHBS (Multi-Purpose Household Budget Survey) estimated incidence of poverty, whereas annual growth rate of poverty was 5 percent and 42.5 percent at national level. 43.2 percent in rural and 19.2 percent in urban areas. The absolute number of poor decreased from 9,507,000 in 1995/96 to 7,513,000 in 2003/04 and the annually change decreased by negative 2.62.

## 3.1.4 Situation of inequality in Nepal between 1995/96 and 2003/04

Growth is necessary but not sufficient condition for reduction of poverty and conflict in the society. As the income level becomes high in any country the government should make such policy which helps to reduce inequality for sustainable economic development of developing countries. Real per capita expenditure grew by 43 percent, while poverty declined by 26 percent, during the 8 years between the two NLSS surveys. A comparison of inequality between two surveys 1995/96 and 2003/04 and their finding in the context is

depicted in Table 3.8. The measures of inequality using the ratio of selected percentiles of the per capita expenditure distribution (p10, p25, p50, p75, p90) and Gini coefficients has computed that Inequality has increased across the entire per capita expenditure distribution except between p25 and p10, Gini coefficient has increased from 34.2 to 41.4. Inequality in the upper half is greater than the bottom half (1.48 to 1.58). Both inequality and Gini coefficient in urban areas is higher than in rural areas.

# 3.1.5. Comparison of human poverty index of Nepal with neighbour countries

A comparison of human poverty of Nepal with particular neighbouring countries will be meaningful in poverty analysis. In Table 3.4 below most of the neighgouring countries of Nepal on the basis of income and socioeconomic situation has been shown.

	Human	Inco	ome	National	HPI1
Country	Poverty Index Value (%)	US \$ 1 a day (1990-2002) (%)	US \$ 2 a day (1990-2002) (%)	poverty line (1990-2002) (%)	Rank
Nepal	41.2	37.7	82.5	42.0	69
India	31.4	34.7	79.9	28.6	48
Sri lanka	18.2	6.6	45.4	25.0	76
Bangladesh	42.2	36.0	82.8	49.8	72
Pakistan	41.9	13.4	65.6	32.6	17

Table 3.4: Human Poverty Index and Income Poverty inNeighbour Countries, 2004

Source: Human Development Report, 2004, UNDP

One common measure of poverty is income measure in terms of consumption and expenditure. At the international level those earning less than US \$ 1 a day are often described as poor. Poverty encompasses deprivation as well as the inability to gain access to resources that would keep such household out of their struggle for day-to-day subsistence. For poverty reduction five capabilities<sup>81</sup> that need to be addressed if our goal is to be achieved in a sustainable and effective manner, are a) Human capabilities (education, health, nutrition), b) Economic capabilities (consumption, income, assets), c) Political capabilities (rights, influence, freedom), d) Socio-cultural capabilities (status, dignity), e) Protective capabilities (security, environment).

#### 3.1.6. Evaluation of poverty reduction programmes in Nepal

In Nepal, the lowest 20 percent of the population shares only 7.6 percent of the total income whereas 45 percent of the income consumption has been accruing to the top 20 percent of the population. This shows that the growth model of economic development actually failed to eliminate or even reduce widespread poverty in Nepal like in most of the developing countries. The income inequalities have been more severe in developing countries than others. A study on income distribution exhibited that the lowest 40 percent of the population received an average 25 percent of the total income in most socialist countries. It was 16 percent for developed countries and only 12 percent of income share was for the bottom 40 percent people in developing countries.

The greater inequality in income distribution in the world's poorest country was the consequence of the lack of income transformation mechanisms. They relied more on the philosophy of 'trickle down effect' and the economic growth. Growth oriented approach of planning the public distribution system of goods and services are bound to fail in reducing mass poverty. Our planning approach has been failing in the sense that only a minuscule amount of resources trickle down to the poor.

The root cause of the poverty persistence in developing countries like Nepal is the urban bias and anti-poor policy of the state. While about 75 percent of the population in developing countries resides in rural area, more than 80 percent private investments and major chunk of public expenditures are diverted to urban development and industries. In Nepal, effective income transfer

<sup>&</sup>lt;sup>81</sup> His Majesty Government (currently Nepal Government)/ Ministry of Education and Sports (2002), 'Human Resource Development' 2002, Kathmandu Nepal.

mechanisms are non-existent or even if they are, they are ineffectively administered. The income transfer mechanisms such as social security payments, unemployment compensation, welfare payments (subsidized food, housing, etc.) and employment opportunity have been successfully implemented in many countries.

## 3.2. Pattern of Unemployment in Nepal

Nepal labour force survey report on 1998/99, shows that in the case of estimates for the total currently active population (15 years and above as being 9.641 million), the 95 percent lower and upper bounds for this estimate are 9.410 and 9.873 million respectively. This means that we can be 95 percent confident that the number of people currently economically active lies within this range. In the same way the unemployment rate has been estimated. Accordingly 0.178 million population are currently unemployed and 95 percent lower and upper bounds for this estimate are 0.153 and 0.203 million respectively. For male and female, rural and urban are shown in the form of absolute as well as relative terms are given below in Table 3.5

	Estimated 95 percent confidence interval								
Attributes	Curre	nt Unemplo (millions)	yment	Unemployment rate (percent)					
		Lower	Upper		Lower	Upper			
Nepal	0.178	0.153	0.203	1.8	1.6	2.1			
Male	0.098	0.083	0.113	2.0	1.7	2.3			
Female	0.080	0.067	0.093	1.7	1.4	1.9			
Urban	0.077	0.089	0.086	7.4	6.6	8.2			
Rural	0.101	0.077	0.124	1.2	0.9	1.4			

 Table 3.5: Estimation of Unemployment Rate

Source: NLFS, 1998/99, CBS, table B.2, pp 92-93.

The number of unemployed has not been reduced even though the number of Nepalese going for foreign employment is increasing. According to the population census 2002, unemployment rate was 5.1 percent in population above the age of 10 years and old. However, according to the NLSS 2003/04,

among the population of the age of 15 or above, 2.9 percent were unemployment, 74.3 percent were employed, and remaining 22.8 percent were economically inactive. Among the unemployed 3.1 percent were male and 2.7 percent were female, and the youth unemployment was found to be 15 percent. The employed, unemployed and economic inactive situation of Nepalese population has been shown in Table 3.6.

#### Table 3.6: Employment Status in Nepal FY 2003/04

				(i crocint)					
Region	Employed	Unemployed	Economically Inactive	Total					
Gender-wise									
Male	73.3	3.1	19.6	100.0					
Female	71.7	2.7	25.6	100.0					
	Development region-wise								
Eastern	74.9	2.9	22.2	100.0					
Central	72.4	3.3	24.3	100.0					
Western	73.2	2.7	24.1	100.0					
Mid-western	77.0	2.8	20.2	100.0.					
Far-western	80.4	1.4	18.2	100.0					
	Geographical region-wise								
Mountain	86.7	1.3	12.0	100.0					
Hills	76.0	2.1	21.9	100.0					
Tarai	71.1	3.8	25.1	100.0					
Nepal	74.3	2.9	22.8	100.0					

(In 15 years or above population)

(Dorcont)

Source: economic survey 2006/07, NG, Ministry of Finance, table7(d), p78, July 2007.

#### 3.3 Introduction of Employment

Employment is the main means of transforming economic development into an opportunity for poverty alleviation providing employment to poverty stricken masses to reduce poverty and make economic development efforts sustainable. It also strengthens social and political stability. In the absence of economic growth efforts, mere employment target programmes cannot provide employment opportunities to the whole labour force. Hence, employment should be taken as an important link in the process of economic development and concentration should be given to how more employment opportunities can be generated in the development process.

#### 3.3.1. Structure of the Economy

Nepalese economy, whereas the size of the farm is small, technology is traditional, market intervention is limited, agriculture is considered as a way of life. The modern sector of the economy like industry, trade services contribute just above 50 percent of the gross domestic product. Land is the important asset of the Nepalese, but its distribution is skewed. Majority of the people owe marginal land, not enough to meet even the food requirements of the family. Household savings is low at around 3 to 5 percent, so investment in agriculture is low leading to lesser improvement in agriculture. Similarly, industrial development is limited. It is based on imported raw materials and has to face competition from large-scale industries of neighbouring countries of India and China. The balance of merchandise trade is adverse, leading to the deficit in the current account of the balance of payments.

The structure of the economy is changing Urbanization is growing at a higher rate, leading to the development of modern urban and traditional rural economies. Urban-rural dualism is developing. Consequently the dual economic structure is emerging prominently. With the formation of dualistic economy the problem of unemployment has been reflected in a more pronounced way. The expectation of getting higher wage and other opportunities in the urban areas, rural to urban migration is occurring at an accelerated rate while urban jobs are getting restricted. This phenomenon led to seasonal or temporary employment in urban areas. In the rural sense also, with the introduction of education youths are more attracted to non-agricultural employment opportunities, but the rural areas do not have adequate capacity to employ.

# 3.3.2. Employed population and Duration of Work

The information from all economically active population about the duration worked in one year reference period was gathered first time in census 1991 and repeated in census 2001.

 Table 3.7: Distribution of Economically Active population\*, 1991-2001

 (Percent)

Duration of work		1991		2001			
	All	Male	Female	All	Male	Female	
<3 months	2.25	1.86	2.82	5.03	3.68	6.80	
3-5 months	6.01	5.02	7.47	6.72	5.04	8.91	
6-7 months	26.26	24.43	28.95	4.50	3.62	5.62	
8+ months	65.04	68.19	60.38	83.75	87.66	78.66	
n	7339586	4375583	2964003	9900196	5606774	4293422	

Source: CBS, Population Monograph of Nepal, Kathmandu, 2003. \*10 years and above

Table 3.7 shows that 84 percent of usually active population worked for more than 8 months in census 2001 which has increased by 18 percent than the previous census 1991. This indicates that the extent of underemployment in the country has reduced. Data further reveal that more females are underemployed as compared to males. As a result of proportion worked for 6 to 7 months declined sharply. Interestingly, those who worked for less than 3 months recorded marked increase, more importantly for females from 2.82 percent in 1991 to 6.8 percent in 2001.

## 3.3.3. ILO framework for measurement of active population

The recommended framework by ILO in 1990 for the measurement of the usually active population is presented in the following form



# Figure 3.1: ILO framework for measurement of the usually active population

Source: Population Monograph of Nepal Vol. 1, fig 8.1, p 3

The above framework is a fundamental base for classifying of population of Nepal in 2001census and the work force could be used to arrange in other various groups and sub- groups which is the standard frame of population statistics prescribed by ILO.





Source: Population Monograph of Nepal, 2003, Vol. 1, fig 8.2, p 327

In Figure 3.2, population figure is given in parenthesis; percentages are percent of the total population of10 years and over/more. To simplify the presentation response categories1, 2,3and 4 in question 16 of census 2001 and they are presented as a, b, c and d are denoted as 'a' for economic activity, 'b' for extended economic activity, 'c' for looking for/seeking economic job and 'd' for did not do any economic work/activity

# Figure 3.3: Census 2001 data fitted in the ILO framework and beyond



Source: Population Monograph of Nepal 2003, Vol. 1 , fig 8.3, p 328

In above Figures 3.1, 3.2 and 3.3 the classification of active population, according to ILO framework of latest census 2001 of Nepal has been shown. In Figure 3, each box explains itself about the exact figure of employment and unemployment situation of Nepal and also we can compare it with other countries based on ILO framework.

#### 3.4. Some Estimation in Informal Sector Activities in Nepal

The regular data collection in informal sector in Nepal has not been done neither from the government side nor from non-government side. However, in ad hoc from the government side, there are only two informal sector studies by indirect ways but not in separate informal sector surveys as have been taken in India in different times. One of the studies was based on the primary data collected by the Nepal Rastra Bank's Multi-Purpose Household Budget Survey in 1984/85 and the other study was based on the Report on Nepal Labour Force Survey 1998/99 taken by CBS, HMG (Now Nepal Government). In both surveys the informal sector was based on non-agricultural sector and the main occupation was base for informal sector.

The survey (MPHBS-1984/85) provides the percentage distribution of economically active (greater than 10 years) persons over 62 activity groups has been based on main occupation. The proportions used are based on observation and experience of rural Nepal as well as both the plains and hill regions of neighboring states of India. Breaking down the economically active population by the same proportion, and making some assumptions, falls in the informal sector, yields estimates of the number of main workers engaged in each activity. Using same proportion of the data of 1984/84, the estimation of informal sector activities for 1990 has been shown in Table 3.8.

According to the estimated figures in 1990, from the economically active population the employment of main workers in the informal sector was estimated at 1.2 millions, around 76 percent among them was in rural areas, 10.9 percent of the rural and 31.7 percent (Table 3.8) of the urban of the active population were employed in informal sector in Nepal.

Occupational		Rural			Urba	n	Total	
group	% of total	Workers ('000)	Population .of informal sector	% of total	Workers ('000)	Population. Of Informal sector	Workers ('000)	Population of Informal sector
Economically active population >10 yrs ('000)	-	8261	-	-	918	-	9179	
Sales workers	2.8	231	25.6	8.4	78	26.4	308	25.8
Service workers	1.5	120	13.4	6.2	67	19.6	178	14.9
Production workers	3.1	254	28.2	9.6	88	30.3	343	28.7
Transport workers	0.1	12	1.3	1.9	18	6.1	29	2.4
General labour	3.5	285	31.6	5.6	51	17.7	336	28.2
Total: informal sector	10.9	903	100.0	31.7	291	100	1194	100.0
Agriculture	82.2	6791		34.9	320		7111	
Residual (formal)	6.9	568		33.4	307		874	

Table 3.8: Estimated Informal Sector Employment – 1990 (percent)

Source: World Bank/UNDP, 'Nepal Relieving Poverty in a Resource-Scarce Economy' Vol. II, 15 August 1990 Kathmandu, Nepal, Table no I.6-1 and p81

In rural Nepal within the informal sector sales workers, service workers, production workers, transport workers were 25.6 percent, 13.4 percent, 28.2 percent, 1.3 percent respectively which was less than the corresponding items in the urban areas except the corresponding figure of general labour in rural areas. General labour was defined as the labour not engaged sufficiently regularly in any activity to warrant classification that represents a pool of marginal (highly underemployed) and it was in large size in rural compare to urban Nepal.

The magnitude of Nepalese informal sector cannot be defined because of the absence of latest data in this respect. Nepal Labour Force Survey (1998/99) had estimated that 8.6 million workers were involved in the broad informal sector including agriculture sector. If we take account of non-agricultural informal workers, the number was about 1.7 million people aged 15 and over

were employed in the informal sector. This compares with the total employment of only 600,000 persons in other jobs outside the agricultural sector. Total workers involved in the informal economy including agriculture stood at 93.6 percent of the total workforce employed. If you just take non-agricultural informal workers then it accounts for 73 percent of all employed in main jobs outside the agricultural sector.

Of those working in the informal sector, just over a million were males and about 0.6 million females. If they find employment, the young and the elderly groups are likely to find work in the informal sector. Amongst those employed outside the agricultural sector, some 82 percent of those aged 15 to 19 and as many as 94 percent of those aged 60 and over were employed in the informal sector.

In this report, a much higher proportion of women than men were to be found working in the informal sector. Thus, while two-thirds of main jobs outside the agricultural sector held by males were in the informal sector, as many as 86 percent of the equivalent female jobs were in the informal sector.

The largest group of informal sector workers was in shop sales persons<sup>82</sup>. Poverty in general has been not only due to lack of sufficient income or lack of food consumption only but it is lack of all the human basic needs. In broad sense, it is a state in which opportunities and choices needed to human development are denied to lead a long healthy, creative life and to enjoy a decent standard of living, freedom, dignity, self-respect, and respect to others. In 1977, in Nepal poverty was measured on the basis of minimum subsistence consumption and minimum subsistence income. According to these criteria 42.5 per cent were below poverty line. According to the recent information, rural poverty is 34.62 per cent, urban is 9.55 per cent and in Nepal 30.85 per cent people are below poverty line it shows the decreased trend of incidence in Nepal. Human resources development has defined that under poverty reduction the following five capabilities should be overcome and they are: Human capabilities (education, health, nutrition), Economic capabilities

<sup>&</sup>lt;sup>82</sup> CBS (1998/99), 'Report on the Nepal Labour Force Survey' Kathmandu, Nepal, pp 61-64

(consumption, income, assets), Political capabilities (rights, influence, freedom), Socio-cultural capabilities (status, dignity) and Protective capabilities (security, environment).

Poverty reductions programs have failed in Nepal though the main objective of the plans was to reduce poverty. The root cause of the poverty persistence in developing countries like Nepal is the urban bias and anti-poor policy of the state. While about 75 per cent of the population in developing countries resides in rural areas more than 80 per cent private investment and major chunk of public expenditure is diverted to urban development and industries. In Nepal, effective income-transfer mechanisms such as social security payments are nonexistent or even if they are, they are inefficiently administered. The income transfer mechanisms such as unemployment compensation, welfare payments (subsidized food, housing, etc) and employment opportunity have been successfully implemented in many countries.

Estimation of informal sector using two surveys in Nepal shows that the number of employed according to 1984/85 of age 10 years and above were 1.2 millions but it was 1.7 millions of age 15 years and more according to 1998/99 in non-agricultural informal sector. Thus, the increasing number of employed in informal sector has accepted the hypothesis which was one of the important hypotheses of present study.

# Conclusion

Poverty is a multidimensional aspect. One of the aspects generally is the lack of sufficient income or a lack of food consumption but in the broad sense it is a lack of all human basic needs. According to Nepal Living Standard Survey-2003/04, rural poverty was 34.62 percent, urban was 9.55 percent and in Nepal it was 30.85 percent. There is decreasing trend of incidence of poverty in Nepal.

Poverty reduction programs have failed in Nepal though the main objective of the various plans was to reduce poverty. The root cause of the poverty persistence in developing countries like Nepal is the urban bias and anti-poor policy of the state.

The nature of informal sector is not a new phenomenon in Nepal. However, it is not clearly defined here from government side though two indirect surveys have done some work related to identification of informal sector. In both surveys informal sector has been explained to play significant role in economic development of the country. The first survey (MPHBS-1984/85) estimates that 10.9 percent of the rural and 31.7 percent of the urban active population were employed in informal sector in Nepal. Whereas, second survey (NLFS-1998/99) had estimated that 8.6 millions of workers were involved in the broad informal economy including agriculture sector. If we take account of non-agricultural informal workers the number was about 1.7 million people aged 15 and over. It is found that 73 percent of all employed in main jobs outside the agricultural sector were in informal sector. In the following chapter we shall be taking up the issues of the growth of organized and unorganized sector in Nepal and Chitwan district.

# CHAPTER-IV GROWTH OF ORGANIZED AND UNORGANIZED SECTORS IN NEPAL AND CHITWAN DISTRICT

This chapter deals with the growth of organized and unorganized sector in Nepal and Chitwan district. Historical development and status of both sectors in Nepal and in Chitwan district are being explained briefly. Moreover, significance of unorganized sector and informal sector (a subset of the unorganized sector) with their activities has also been highlighted briefly in Nepal. Our major objective is to know about informal sector activities especially those prevailing in Chitwan district.

## 4.1 Organized sector in Nepal

# 4.1.1 Introduction

It is hard to know the share of the organized or modern sector in total employment in the country. Similarly, the available statistical data is not only sketchy but is also inconsistent<sup>83</sup>. However, the organized sector is defined in terms of commercial establishments employing 10 or more workers. This makes the share of organized sector in total employment small and somewhat ambiguous as well. In 1992, the total number of workers employed in the organized sector was 0.22 million. Subsequent surveys relating to the industrial sector have put the number of employees in the manufacturing sector at 0.35 million. If the number of government employees (0.34 million) is added to this, the number of organized-sector workers stands at 0.69 million or 7 percent of the total employment. According to the World Bank estimate for 1993, the employment in organized sector was 0.97 million which was almost 10 percent of the total employment in 1993 in Nepal.

Another estimate (ILO SAAT 1997), which regards the employment in the organized sector was 0.84 million i.e., 8.5 percent of the total employment,

<sup>&</sup>lt;sup>83</sup> ILO(1997), 'Employment in Nepal – Prospect and Policies' ILO(SAAT), New Delhi, 1997, p 19

including self-employment. Despite variations in measurement, above estimates agree that the organized sector covers only a small proportion i.e., 7 to 10 percent. This implies that wage legislative process wretched impact only a small body of labourers<sup>84</sup>.

Various manufacturing establishments are registered are classified under Nepal Standard Industrial Classifications (NSIC) as per international standards.

Items	Total	Ten or more than 10 engaged persons
No. of establishments	9359	2054 (21.95)
No. of persons engaged	152579	129088 (84.6)
No. of employees	136911	124559 (90.98)

 Table 4.1: Some Indicators of Manufacturing Establishments, 1986/87

 (As per NSIC classification)

Sources: Statistical Pocket Book, Nepal, 1990, CBS, Kathmandu, table no 10.1(a), 10.1(b) parentheses shows the percent

Table 4.1 shows that among the manufacturing establishments, 7305 i.e. around four-fifth (78.05 percent) were less than 10 persons of size of manufacturing where 84.6 percent were persons engaged and 91 percent were employed.

The indicators of EDR shows that it was more satisfactory and CDR was worst as compared to other development regions. WDR and FWDR were also quite good in the progress. The manufacturing industries of development regions show that the economy was very poor during 1996/97 to 2001/02 in Nepal. Number of establishments of manufacturing, number of persons engaged and employees in different development regions during the two different times has been shown in Table 4.2.

<sup>&</sup>lt;sup>84</sup> NHDR (1998), 'Nepal Human Development Report-1998, Nepal South Asian Centre, Kathmandu, Nepal, pp 105-106

Indicators	Year	EDR	CDR	WDR	MWDR	FWDR	Total
Total No. of	1996/97	704	2019	519	182	133	3557
establishments	2000/01	825	1496	583	153	156	3213
	% change	4.04	-7.22	2.95	-4.25	4.07	-2.51
Total No. of person engaged	1996/97	31657	137455	17821	5751	4624	196708
	2000/01	57150	98989	23764	6250	5720	191853
	% change	15.91	-7.88	7.46	2.10	5.46	-0.62
Total No. of	1996/97	29809	132130	16376	4635	4366	187316
employees	2000/01	54885	93888	22094	5821	5255	181943
	% change	16.49	-8.19	7.77	5.86	4.74	-0.72
No of districts		16	19	16	15	9	75

Table 4.2: Regional Development of Manufacturing Establishments(as per classifications)

Sources: \* Statistical Year Book of Nepal, 1999, CBS, Kathmandu, table no 13.1-13.6 \*\* Statistical Year Book of Nepal, 2003, CBS, Kathmandu, table no 13.1 and 13.2

Around 77 percent establishments, 86 percent persons engaged, 86.5 percent employees were in eastern and central development region but the number of districts were less than half (46.7 percent) in 1996/97. 72 percent number of establishments, 81 percent persons engaged, 82 percent employees were in same location in 2001/02 that shows that the disparity has slightly decreased.

Table 4.3: Distribution of Manufacturing Establishments by Fixed Assets

Classification of fixed Assets	No. of establishments	No. of person engaged	No. of employees
Fixed assets <1 crore	3203 (90.03)	103932(61.24)	122323 (65.30)
Fixed assets 1 - 5 crore	282(7.93)	40554 (23.90)	39903 (21.30)
Fixed assets 5 or more crore	72(2.03)	25222(14.86)	25090 (13.40)
Total	3557 (100.00)	169708 (100.00)	187316 (100.00)

Sources: Statistical Year Book of Nepal, 1999, CBS, Kathmandu, table no 13.7 (Figures in parentheses indicate percentages)

Year	No of Industries Registered		Fixed Capital Investment (NRs In Million)					
	Private firm	Private Ltd.	Partner- ship	Total	Private firm	Private Ltd.	Partner- ship	Total
1900/91	946	43	123	1112	905.0	137.2	184.0	1226.2
	(85.0)	(3.9)	(11.1)	(100.0)	(73.9)	(11.1)	(15.0)	(100.0)
1991/92	5020	242	465	5727	1840.6	382.2	351.2	2574.0
	(87.7)	(4.2)	(8.1)	(100.0)	(71.5)	(14.9)	(13.8)	(100.0)
1992/93	6087	296	398	6781	2070.0	590.0	490.0	3150.0
	(89.8)	(4.4)	(5.8)	(100.0)	(65.7)	(18.7)	(15.6)	(100.0)
1993/94	8535	321	630	9486	3630.0	630.0	1460.0	5720.0
	(90.0)	(3.4)	(6.6)	(100.0)	(63.5)	(11.0)	(25.5)	(100.0)
1994/95	7833	247	439	8519	4280.6	679.8	409.6	5370.0
	(91.9)	(2.9)	(5.2)	(100.0)	(79.7)	(12.7)	(7.6)	(100.0)
1995/96	8638	544	468	9650	3850.0	2890.0	480.0	7220.0
	(89.5)	(5.6)	(4.9)	(100.0)	(53.3)	(40.0)	(6.7)	(100.0)
1996/97	7404	346	446	8196	4080.0	1360.0	600.0	6040.0
	(90.3)	(4.2)	(5.5)	(100.0)	(67.5)	(22.5)	(10.0)	(-16.3)
1997/98	8669	511	470	9650	4780.0	3470.0	710.0	8960.0
	(89.8)	(5.3)	(4.9)	(100.0)	(53.3)	(38.7)	(8.0)	(48.3)
1998/99	8773	533	684	9990	5100.0	3640.0	880.0	9620.0
	(87.8)	(5.3)	(6.9)	(100.0)	(53.0)	(37.8)	(9.2)	(100.0)
1999/00	8889	689	549	10127	6650.0	3240.0	450.0	10340.0
	(87.8)	(6.8)	(5.4)	(100.0)	(64.3)	(31.3)	(4.4)	(100.0)
2000/01	8368	542	407	9317	4550.0	2380.0	390.0	7320.0
	(89.8)	(5.8)	(4.4)	(100.0)	(62.2)	(32.5)	(5.3)	(100.0)
2001/02	8851	513	526	9890	4110.0	2910.0	700.0	7720.0
	(89.5)	(5.2)	(5.3)	(100.0)	(53.2)	(37.7)	(9.1)	(100.0)
2002/03	6778	340	454	7572	5023.8	531.4	354.8	5910.0
	(89.5)	(4.5)	(6.0)	(100.0)	(85.0)	(9.0)	(6.0)	(100.0)
2003/04	5985	600	548	7133	4622.7	1027.9	469.4	6110.0
	(83.9)	(8.4)	(7.7)	(100.0)	(75.5)	(16.8)	(7.7)	(100.0)
2004/05	6972	559	499	8030	8790.3	1532.8	684.2	11010
	(86.8)	(7.0)	(6.2)	(100.0)	(79.9)	(13.9)	(6.2)	(100.0)

Table 4.4: Number of Cottage and Small Scale Industries Registered

Sources: Economic Survey, Fiscal Year 2005/06, GON, MOF, July 2006, Table 8.14 (p 63) within parentheses show growth rate

The manufacturing establishments have been classified on the basis of fixed assets used by them. Small scale manufacturing units have employed larger number of employees and have also engaged larger number of persons. Around 90 percent establishments were from fixed assets less than one crore and it employed around two-third (65.3 percent) of the total employees.

Table 4.4 depicts number of industries registered under the type of ownership i.e. private firm, private limited, and partnership and investment in fixed capital form. In the beginning the situation of the cottage and small scale industries showed increasing trend. In terms of registration as well as in fixed capital investment during the last five years they showed decreasing trend.

Numbers of industries registered as private firm are generally greater (85.0 per cent) but the fixed capital investment was less during 1990/91 to 2004/05. In both private limited and partnership industries fixed capital investment were greater as compared to number of industries registered. Fixed capital investment was decreasing in last five years.

#### 4.1.2 Wage structure

The wage structure shows the economic status of the country. Industrialization is very low although modern industries began operating in Nepal since 1936. The employment generating capacity of the existing industries is quite unsatisfactory. The situation has gone worse with the onslaught of the new economic policy by including privatization, liberalization and globalization. However, the minimum wage rate in 1965 was fixed only in limited industries of Biratnagar, in eastern Nepal, where modern industries originated, the same wage rates were extended to other industries and districts of the country in 1966. Only the 1973 adjustment covered all industries all over the country. In 2003, the minimum daily wage rate per worker was NRs 90 and for child labour i.e. minor wage rate was NRs 73/day.

# 4.2 Unorganised Sector in Nepal

In the context of Nepal the definition of "informal sector" in most of the literature, which is limited, has been used as synonymous with "unorganised sector". Formal sector or organized sector is limited size in Nepal and the unorganised sector is large and it can be classified into agriculture sector and non-agricultural informal sector. Hence informal sector is a subset of unorganized sector. In this study, a difference has been made between organized sector and informal sector.

# 4.2.1 Definition of Informal Sector Employment

Definition of Informal Sector in Nepal and its neighbours are as follows:

**Bangladesh:** In Bangladesh, informal sector was defined according to "Annual Establishment and Institution Survey, 1992/93". In this survey, the informal sector includes household economic activities, household-based economic activities

**India:** In India, informal sector information was collected in 'estimate based surveys of the unorganised sector, 1988/93'. In this survey, unorganised sector is defined as enterprises (defined as undertakings engaged in the production and/or distribution of goods and/or services not for the sole purpose of own household use) on which no data are collected through administrative records or by some Act. These include all enterprises other than those belonging to (i) the public sector, (ii) the corporate sector (including the corporative sector), and (iii) registered under the Indian Factories Act 1948 and covered by the regular Annual Survey of Industries. Estimation are based on the surveys like: enterprise surveys, transport, hotels, and restaurants 1988/89: educational, medical, community, cultural and other services 1991/92: storage and warehousing 1992/93: and mining and quarrying 1992/93: survey of manufacturing establishments/enterprises 1989/90: surveys of trading establishments/enterprises 1990/91.

**Nepal**: in Nepal the separate informal sector survey has not been done up to now. However, Nepal Labour Force survey (1998/99) has defined the informal

sector. According to this survey- "a person whose main job is not in agriculture has been counted as working in the informal sector if his or her present job satisfies each of the conditions shown in a single row in Table 4.5.

Employment status	Institutional sector	No employees	of
Paid employee	Private unregistered company Or other	Less than 10	
Operating own business with no employees			
Operating own business with regular paid employees Or contributing family member without pay Or other		Less than 10	

 Table 4.5: Classifying Non-Agricultural Sector Jobs as Informal

Source: Nepal Labour Force survey (1998/99), CBS/HMG, KAthmandu, Nepal

Where a person is not currently employed, the informal sector status is calculated on the basis of the main job in the last year or (if he or she did not work during the last year) the most recent job".<sup>85</sup>

**Pakistan:** The definition of informal sector employment in Pakistan is based on 'Labour Force Survey: Pilot Study, 1992'. According to this survey informal sector employment means persons working unincorporated enterprises (including quasi-corporations) owned by own account workers irrespective of the size of the enterprise, or by employers with less than ten persons engaged. Enterprises exclusively engaged in non-market production are excluded.

Sri Lanka: The definition of informal sector employment in Sri Lanka is based on 'Survey of Household Economic Activities 1984/85' In this survey, household economic activities mean households with at least one member who is self-employed in agriculture or engaged in a non-agricultural activity on an own account basis either as a primary or a secondary activity. Excluded are households engaged in non-agricultural activities which employ one or more regular employees. Included are households engaged in non-

<sup>&</sup>lt;sup>85</sup> NLFS (1998/99), 'Report on the Nepal Labour Force Survey 1998/99, CBS, Nepal p16.

agricultural activities which do not employ any hired labour or which employ casual workers on an ad hoc basis and all households engaged in agricultural activities irrespective of whether or not they employ hired labour<sup>86</sup>

# 4.2.2 Micro Finance

In Nepal, micro finance industry has three forms –informal institutions, semiformal institutions and formal institutions. Informal institutions include the *Dhikuti, Bheja, Pewa,* user groups, and professional credit unions. All these are solidarity groups. *Dhikuti* originated from Thakali and *Bheja* from Magar community. Saving and credit are mobilized to the members only in the *Dhikuti* whereas in *Bheja* system funds are raised from each household within its jurisdiction, and mobilized for community project and ceremonies. *Pewa* also is common and popular in Nepalese women and daughters in rural area. Millions of micro saving and micro credit units are mobilized through *Pewa* especially in rural areas in Nepal<sup>87</sup>

The history of informal micro finance institution in Nepal is immemorial, but the history of formal institutions is just five decades old. Micro finance institutions have grown like mushroom especially after the restoration of democracy in 1990. Thousands of micro finance institutions are operating. Nepal Government has also been running different micro credit projects in the name of the alleviation of the poverty. But most of the micro finance institutions and projects are based either in the urban area or periphery of the urban areas. Some are doing business in the name of poor. Some are expropriating the money of poor for rich through micro finance institutions. Thousands are running without the license of Nepal Rastra Bank. Most of the micro finance institutions are out of the supervision and monitoring of the concerned authorities. Different types of institutions are delivering the same financial product for different prices and are being run under different acts. So, Nepal Government has made the policy announcement in the Public

<sup>&</sup>lt;sup>86</sup> ILO (2001/02), 'Key Indicators of the Labour Market' 2003, Geneva pp 244-245.(The definition of informal sector employment of Bangladesh, India, Pakistan and Sri Lanka)

<sup>&</sup>lt;sup>87</sup> Baral, K.J., (2006), 'His Majesty's Government Policy Announcement on Micro Finance Industry' 2006. (this paper available from web)

Statement on Income and Expenditure Statement of the Fiscal Year 2005/06 to bring the micro finance institutions under one umbrella act; to streamline the services of micro finance industry to the poor, ultra poor, women, and rural area as an instrument of reducing the poverty and hunger; and to develop the sustainable micro finance institutions.

# 4.3 Informal Sector Activities in Nepal

The informal sector is heterogeneous in terms of activities and actors. Sectors of the economy involving informal operators include commerce, agriculture, construction, manufacturing, transportation and services — in other words, virtually every sector. The informal financial sector, including moneylenders and moneychangers, play a major role in many countries. Almost all crafts and most other occupations can be found in the informal sector: hairdressers, beauticians, money changers, bidi workers, rickshaw pullers, plumbers and mechanics, head load workers, garbage pickers, vegetable sellers, kiosk operators, second-hand clothes dealers, tailors, textile workers, wood carvers, watch repairers, furniture carpenters, charcoal dealers and domestic servants. Those persons who live near by forests and collect the firewood and then supply it to the market known as 'Daure' (special code of fire wood collectors), is also an informal work in hillside and in Terai of Nepal.

Some of the important informal activities in Nepal are as follows:

# i) Cottage industries

In rural areas most households are engaged in cottage industries although the vast majority of products are for home consumption. Income from this source is relatively insignificant especially to the poorer households. It is different in the case of the economically better-off households who have been able to exploit, to their advantage, various incentive measures introduced for the development of cottage industries.

## ii) Occupational castes

Occupational castes/artisans in Nepal include tailors, leather workers, blacksmiths etc in the hill regions. In the Terai, they also include milk-sellers,

sweet-makers, barbers, washer-men, gardeners, carpenters, oil pressers, and etc. These groups are usually the poorest and the most disadvantaged members of a village.

#### a) Tailors

Tailoring as an occupation in Nepal has a long history but in modern time the occupational concept has changed. Rural tailors tend to migrate in stages, first to smaller roadside locations and then, if successful, to large towns. This is because the kinds of product demanded by the relatively sophisticated urban peasants. Demands on skill – and experience of the tailor impose what might be termed 'entry costs' in that many rural tailors will find it difficult to set up and run a successful business in large towns. The tailors' establishments in towns are rarely 'soap' in the sense of retail outlets but generally rented space next to, or on the porch, of a cloth shop.

The existence of a large number of tailors in the towns indicate that tailoring as an occupation still provides income for many poor households. Yet for a vast majority of them, it provides a minimal livelihood rather than a business enterprise in usual sense.

## b) Metal-workers

In the hill towns where historically brass and copper work was done by specific sub-castes of Newars craftsmen. The small scale production of household utensils and vessels has declined drastically over the past twenty-five years because of the competition from cheap mass manufactured products. The number of metalworking in establishments has been actively using the simplest tools rather than a business enterprise.

## c) Cobblers.

Sarkis shoemaking leather-working, an occupation previously employing some of the underprivileged and poorest households, the cobblers (sarkis), is on the decline because of competition from mass-manufactured footwear, only in the largest urban areas can a few shoemakers find a foothold making modern black shoes for the wealthier townsfolk.
## d) Porters

Porting is an activity contributing only a fairly small part of same household's income. It is extremely strenuous work. The demand for portage has increased generally large centers of demand in the hills, which have to be supplied by the import of goods from India and Tarai and the opening up of major roads with off-road transport linkages being served by wage porters. Increased tourist trade, particularly, trekking has also led to Increased demand for porters.

## e) Small business

Reduced income in peasant households has forced many to turn to various non-agriculture sources including small business to supplement their farm income. At the same time relatively advantaged peasants and large landowners also began to look for investment possibilities outside agriculture. The term 'small business, is used in the widest sense in as much as it includes the sellers of home-cooked food and sweets, itinerant petty hawkers and peddlers who combine commodity production on a minute scale with other equally marginal forms of activity, as well as the small businessmen with recognizable, if often simple, premises.

In towns peddlers and hawkers constitute the most numerous stratum and the most vulnerable. A survey in Kathmandu revealed that in trade sub-sector, 48 percent were engaged in textiles and garment trade, 15 percent in fruits and vegetables and rest cosmetic, tea and sweets, cigarettes and nuts, shoes, bags etc. In the service sector 36 percent were engaged in shoe repairing, 25 percent in hair cutting, 20 percent in tailoring, 12 percent in watch repairing and 7 percent in gas lighter refilling.

## f) Shop keeping

In the 1960s there was a tremendous increase in the number of small shops which stock cheap household goods and groceries. This surge reflected a combination of increasing pressure on rural incomes, growth of demand for imported goods, and exceptionally low entry costs into this particular branch of business.

## g) Hotel and Catering

The growth of towns particularly along the roadsides has been associated with a massive increase in the number of establishments providing foods and drinks for travelers and tourists, and for those working in the town and unable to go home for meals or refreshments.

## h) Service and repairing businesses

Since 1960s there has been a rise in these businesses. Probably the most common of these are the small watch repair, radio repair businesses and workshops for motor vehicles of all kinds. Technical skills are required for these services which also limits entry to some extent.

## i) Rickshaw pulling

Rickshaw pulling work is another informal activity in most of the towns in Terai of Nepal. Although, rickshaw-pulling work was started from Japan and more recently it was developed in Asian countries. According to Gallagherl's estimates in 1988, there are 3.8 million of rickshaws in Asia, more than half of which are in India (1.7 million), others countries figure are 750,000 in China; 698,000 in Bangladesh in which 88,000 were in Dhaka only in 1988; 300,000 in Indonesia; 150,000 in Vietnam; 60,000 in Myanmar; 50,000 in Nepal; 10,000 in Philippines; 500 in Singapore; and 20,000 in other remaining Asian countries<sup>88</sup>.

## 4.3.1 Significance of informal sector in Nepal

Low-income countries are characterized by dualism in labour market: formal and informal sectors. There are measurable technological differences between two sectors. The majority of the workers are in unorganized sector (or informal sector). In Nepal, for example, 90 percent of the workers are in unorganized sector and they do not get any social security benefits. In terms

<sup>&</sup>lt;sup>88</sup> Amin, A.T.M.N., (2002), 'The Informal Sector in Asia from the Decent Work Perspective' Employment Paper, Employment Sector ILO, Geneva, 2002 p25

of numbers, agricultural workers dominate the total labour force. A large proportion of the population in South Asia lives in rural areas and this population continues to grow at a substantial rate. Given limit to the cultivatable land in Nepal, high growth rates of rural labour force will not be productively absorbed in the agricultural sector. There is a need to shift the work force from agriculture to non-agriculture in order to increase the labour income. Changes in the occupational structure may reflect relocation of surplus labour force from farm to non-farm sectors. Due to various constraints in Nepal the shift of labour force is moving towards informal sector<sup>89</sup>.

Unorganized sector, popularly known as informal sector can be defined as in the Nepalese context as those sectors emploving less than 10 employees/workers, without formal registration and fixed and working capital amount less than Rs. 50,000 as a small units of business activities. The common characteristics of this sector are: free entry and exist of the workers, low income, low productivity, low capital intensity and low scale of operation. Similarly, agricultural activity in up to 3.4 Hectares agriculture land employing less than 10 workers is also known as informal sector<sup>90</sup>.

In Nepal, the informal sector is divided into two major parts:

a) Urban informal sector, and, b) Rural informal sector

Basically, non-agricultural business activities in rural area in Nepal are of traditional type and limited but larger percent of population lies in this area whereas in urban informal sector activities are non-agricultural small business activities, dynamic and modern type as compared to rural activities, in increasing trend with vulnerable and feeling insecure in their business. Rural as well as Urban informal sector, according to the nature of work, can be classified as follows:

1) Agriculture: Semi-peasant, rural poor, Hali, Gothala, Khetala, Kamaiya.

<sup>&</sup>lt;sup>89</sup> Mahendra Dev (2000); Economic Liberalization and Employment in South Asia; Discussion papers on development policy no 29, Development Research, Bonn, August, 2000, Website: zef\_dp29-00.pdf

<sup>&</sup>lt;sup>90</sup> Acharya Bedraj (2005); Labour Economics in Nepal –2005, NEFAS, Kathmandu, Nepal.

- 2) Sideline agriculture: animal husbandry, poultry farming, horticulture and other cash crops, dairy, bee keeping, sericulture, fishery.
- 3) Trades: Small retail shop, food stall, street venders, Khoka shops, vegetables and fruits sellers.
- Services: Electric and electronics repair, cycle, motorbike and automobile, Bhariya, mechanics, barbers, beauty parlor professionals, garbage cleaners, hawkers, boot polish professionals, domestic helpers and mid-wives, bottle collectors and rag collectors, laundry, butcher,
- 5) Construction: small scale builders, masons, joiners brick layers, carpenters, plumbers, house painters, electricians electrical repairs, irrigation and building construction workers. Tailors, stone query labourers, brick kiln workers.
- 6) Transportation: taxi, bus/ mini-bus, truck and load carrier, thela carts, rickshaw/ tanga, tractor, loaders.

One of the Nepali scholars, Dev Raj Dahal argues- "The benefits of informal economy are always underestimated despite its meaningful contribution to the livelihoods of the poor people. Obviously, informal sector continues to grow in direct proportion to the decline of formal economy. New technology tends to marginalize once formal economy by expanding the space of new economy. In Nepal, its contribution to national economy is more than fifty percent." <sup>91</sup>

Nepali informal sector is often considered as a female dominated sector, this sector absorbed a significance number of women workers. Information shows that out of total female labourers force 94 percent are active in rural areas and 91 percent are engaged in agriculture where only 4 percent of the female labour force is employed in formal sector. Underemployment rate of labour force is 40 percent. Similarly, full employment and unemployment rate of labour force are 46 percent and 14 percent respectively. 92 percent of the

<sup>&</sup>lt;sup>91</sup> Rimal Bishnu (2004); Informal Economy New Challenges for Trade Unions; GEFONT ,Vice-Chairman, Oct. 20,2004, Sweden.

total labour force is in rural area. It is obvious that the largest labour force of this number is in informal sector. Out of this number about 81 percent is active only in agriculture. Besides peasant and non-wage agricultural workers, there are two categories of agriculture wage labourers. In first category, those labourers whose means of survival is only wage. Whereas second covers those means of livelihood is the wage labour and their self-employment. It is estimated that there are 20 millions wage labourers in Nepalese agriculture sector whereas 500,000 families are landless. These families cover one millions workers of the total labour force and only 7-10 percent are in formal sector <sup>92</sup>

This indicates that the remaining labour force is in informal sector and agricultural sector.

According to the estimate, 1.7 million people aged 15 and over are currently employed in the informal sector. This sector accounts for 73 percent of all employment in main jobs outside the agriculture sector. Among the73 percent, 67.4 percent are male whereas 86.5 percent female. Among those currently employed outside the agricultural sector, some 82 percent of those aged 15 to 19 and 94 percent of those aged 60 and over are employed in informal sector<sup>93</sup>.

Non-agricultural rural informal sector indicates that there are various establishments of traditional and non-traditional cottage industries in Nepal. The traditional cottage industries in Nepal are follows: hand loom, pedal loom, semi-automatic loom, wrapping, dyeing, printing, sewing, knitting, local carpet, woolen carpet, pasmina, woolen garment, carpentry, woolen handicraft, bamboo and cane goods, materials made from natural fibers, hand made paper, gold, silver, brass, copper work and ornaments, image making from precious and semi precious stones, honey, big cardamom processing, poultry, leather cutting drying village tanning and leather works, jute, Babio, Choya, goods from cotton thread, leather goods, artistic goods from bones and horns,

<sup>92</sup> Ninth Plan

<sup>&</sup>lt;sup>93</sup> Nepal Labour Force Survey-1998/99, CBS, HMG, Nepal

stone carving, stone studded, metal goods, painting, pauwa, batic, material made from hand made paper, incense, dolls, toys and stone studded metal filigree commodities.

Due to the Nepal's own specific condition, the urban informal sector is not so large but recently has been increasing trend. The urban informal sector includes mainly non-agricultural activities. Major portion of the labour force in this sector is active as 'self-employed' workers.

In most of the developing countries, the informal sector makes major contributions to the economy, particularly in terms of employment. However, the informal sector is characterized by low productivity and low wages, poor working conditions and long working hours. There is a need to enhance productivity and incomes in the informal sector to tackle the problem of poverty. A two-pronged strategy could be adopted. Individuals involved in marginal and subsistence activities should be assisted in such a way that their incomes raise, their working conditions improve, and they move out of poverty. Policy interventions to achieve this include the provision of credit, education and skills training, improved access to physical infrastructure, the extension of social protection, assistance in the formation of self-help groups and business and workers associations, and the strengthening of linkages with the formal sector. The component of the informal sector, that is modern and dynamic and has the potential for growth and economic viability should be assisted in such a way that it can graduate to the formal sector. Policy interventions include the removal of excessive barriers to entry into the formal sector in terms of registration costs, regulations and bureaucratic requirements. Countries may wish to share their experiences in poverty reduction related to the informal sector and help develop recommendations to enhance productivity and incomes to improve working conditions in this sector. The Committee on Poverty Reduction may also wish to provide the secretariat with guidance on any further work in the area of poverty and the informal sector.

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## 4.3.2 Some Important Characteristics of Informal Economy in Nepal

The basic features of informal economy in the context of Nepal, were explained by ILO which we quote here under:

- Low and limited structure and coverage of organisation;
- Low levels of fixed investment and labour-capital mix, where the investor him/herself works as self employed worker and hires additional wage-labour in accordance with the requirements;
- Difficulties in separating business and personal or household expenses leading to insecure working capital;
- Range of production from petty commodity to small factories;
- Hierarchy of intermediaries;
- Easy decapitalisation due to the lack of entrepreneurial skills and also because of vulnerability to risks;
- Lack of access to training leading to low productivity (thin profit margins) as informal workers generally lack skills;
- Labour relations based on verbal contracts dominated by casual employment and social relationships as opposed to formal contracts;
- Home based-family based pattern of production;
- The owner assumes all financial and non-financial obligations;
- Lack of capacity to identity, understand, reach, or use specific markets;
- No social protection to workers against contingencies;
- Diverse character of wages and high wage differentials with domination of piece rate wages;
- Lack of innovation because of isolation and lack of research and development;

- Output not fully accounted for in the national accounts;
- Low coverage by trade union movement
- Increasing number of immigrants in informal economic activities;
- Workers under various kinds of harassment in the comparison to the formal sector<sup>94</sup>
- 4.4 Organised Sector in Chitwan District

Characteristics	Rural		Urban		Total	Percent
(household having)		U1	U <sub>2</sub>	Total		
Agriculture land only	7832	2860	1341	4201	12033	12.96
Livestock only	1461	816	270	1086	2547	2.74
Poultry only	349	79	43	122	471	0.51
Land and livestock	24815	4905	3104	8009	32824	35.35
Land and poultry	1383	115	100	215	1598	1.72
Livestock and poultry	831	101	63	164	995	1.07
Land, livestock and poultry.	22780	672	839	1511	24291	26.16
None of all	6022	10374	1696	12070	18092	19.49
Total	65473	19922	7456	27378	92851	100.00

Table 4.6: Household Having Agriculture Land,Livestock and poultry, Chitwan

Sources: 'Population of Nepal', population census 2001, Selected tables (central Development Region), CBS, Kathmandu, Nepal June 2002, Table 2 p 116

From the latest census it shows that just greater than one-eighth (12.96 percent) households were used land as agriculture only. More than one-third (35.35 percent) households were land and livestock and just greater than one-fourth (26.16 percent) households were in land, livestock and poultry. This information shows that number of households dependent in agricultural sector has been decreasing in Chitwan district (Table 4.6). Comparing to previous census 1991.

<sup>&</sup>lt;sup>94</sup> ILO (2004), 'The Informal Economy and Workers in Nepal', series-1, Kathmandu, Nepal, pp22,23.

Type of activity	Rural		Urban				
(household having)		U <sub>1</sub>	U2	Total	(Percent)		
Not having economic activities	52415	15200	5765	20965	73380		
	(80.06)	(76.30)	(77.32)	(76.58)	(79.03)		
Manufacturing	775	273	107	380	1155		
	(1.18)	(1.37)	(1.44)	(1.39)	(1.24)		
Trade/Business	3581	2561	868	3429	7010		
	(5.47)	(12.85)	(11.64)	(12.52)	(7.55)		
Transport	571	208	77	285	856		
	(0.87)	(1.04)	(1.03)	(1.04)	(0.93)		
Services	4956	933	398	1331	6287		
	(7.57)	(4.68)	(5.34)	(4.86)	(6.77)		
Others	3175	747	241	988	4163		
	(4.85)	(3.75)	(3.23)	(3.61)	(4.48)		
Total	65473	19922	7456	27378	92851		
	(100)	(100)	(100)	(100)	(100)		

 Table 4.7: Without Economic Activity and Non-Agricultural Economic

 Activities, Chitwan

Sources: 'Population of Nepal', population census 2001, Selected tables (central Development Region), CBS, Kathmandu, Nepal June 2002, Table 3. p 158 ;Note: the figure within parentheses are percent

Not having economic activities and non-agricultural economic activities of Chitwan district has been depicted in Table 4.7. In rural areas, four-fifth (80.06 percent) households were under not having economic activities, 7.57 percent were under services activities. While among the households of  $U_1$ , around three-fourth (76.3 percent) were under not having economic activities, one-eighth (12.85 percent) were in trade/business activities and around 5 percent were in services sectors. More or less same conclusion was found in  $U_2$ .

## 4.5 Unorganised Sector in Chitwan District

The development of unorganised sector in Chitwan district has been increasing with the pace of development. The size of unorganised sector is larger than organized sector. There were 59 different types of industries where 3300 small scale and cottage industries were initially registered under

different types of industries among them only 2142 were running where the numbers of employees were 12988<sup>95</sup>. In this district the population of 10 years age and more were 187743. Hence, more than nine-tenth (93 percent) of this population were employed in unorganised sector.

Major Occupations	Active population (10 years and over)	Percent
Legislators, selling officials and managers	1704	0.9
Professionals	6740	3.6
Technicians and associate Professionals	5075	2.7
Clerks or office Assistants	5558	3.0
Service workers and Soap and market sales Workers	25696	13.7
Skilled and semi-skilled agricultural forestry and fishery workers	84115	44.8
Craft and related trade workers	21501	11.5
Plant and machine operators and Assemblers	5198	2.8
Elementary occupations	31958	17.0
Not stated	199	0.1
total	187743	100.0

Table 4.8: Economicall	v Active Po	pulation in I	Major Occu	pation, Chitwan

Source: Statistical year book of Nepal, 2003, HMG/CBS, Kathmandu, Nepal table no 1.8, p40

Usually economically active population of age 10 years or above, major occupation in Chitwan district is depicted in Table 4.8 Though this classification has not clearly distinguished between organised and unorganised sector in each major occupations, however, the coverage weight of agriculture and forestry which is one of the unorganised sector showed a decreasing trend as compared to previous data (agriculture and forestry was 76 percent in 1991) was just greater than two-fifth (44.8 percent) from latest information. The weight of service sector in 1991 was 12.75 percent whereas in 2003 it reached to 13.7 percent. Elementary occupation was around one-

<sup>&</sup>lt;sup>95</sup> 'District profile of Chitwan' 2004, Office of District Development Committee-Chitwan pp 64-65

sixth (17 percent) implying that more than four-fifth occupations (83 percent) were engaging toward modern activities.

## 4.5.1 Informal Sector Activities in Chitwan District

The various types of informal sector activities have been done more in Chitwan as compared to other districts in Nepal. The east-west highway passes through the two municipalities of this district. Similarly, Kathmandu-Pokhara highway also passes through the district from hillside. On the other hand, it has links to India, owing to being a border district. Most of the employees in this district come from other neighbouring districts from hillsides and a few of them come from eastern part of terai and another few from India. This district has been emerged as a fertile land for Informal sector activities. To provide services to the people is one of the important activities of the informal sector. The major part of the dual economic structure is the informal, unorganized and predominately services related sector. Most observers have been mesmerized by the information technology enabled services and high tech services to notice that the rest of the services sector is also important<sup>96</sup>. Most of the informal sector activities have run on a temporary basis. Due to the lack of data on informal sector activities, the exact size (universe) of each activity could not be found. However, some of the informal sector activities in this district are as follows:

a. Rickshaw pulling: Rickshaw pulling work is one of the informal activities in U<sub>1</sub>. In U<sub>2</sub> and the rural areas from where the east-west highway has passed the rickshaw is used to carry goods but they were small in size. There were 1350 rickshaws<sup>97</sup> registered in 'Chitwan Rickshaw Trade Union'. There are 22 rickshaw service centres in U<sub>1</sub> and one in rural area. Similarly, there are 7 factories to make body of rickshaws<sup>98</sup> in this district. Most of rickshaw pullers are not localites.

<sup>&</sup>lt;sup>96</sup> virmani Arvind(2008); Growth and Poverty: policy implications for Lagging States, Economic & political Weekly, p58, Jan 12-18, 2008, India. Website: www.epw.org.in

<sup>&</sup>lt;sup>97</sup> this figure was available from 'Chitwan Rickshaw Trade Union' February 2005.

<sup>&</sup>lt;sup>98</sup> 'Chitwan industrial directory' 2005. ' union of industries', chitwan

- b. Cottage industries: In rural areas most households are engaged in cottage industries although the vast majority of products are for home consumption. Income from this source is relatively insignificant especially for the poorer households. It is different in the case of the economically better-off households who have been able to exploit, to their advantage, various incentive measures introduced for the development of cottage industries. Bamboo products, making mat from straw, toys etc. are some examples of cottage industries in this district.
- **c. Occupational castes**: still in rural areas in Terai who had come from other hilly districts and hilly part of this district occupations are based on caste basis. These include tailors, leather workers, blacksmiths etc. in the urban part of the district. Some of them have come from eastern Terai and Bihar (India). They also include milk-sellers, sweet-makers, barbers (around 250 barbers are there in this district majority of them were from 'Thakur'<sup>99</sup>), fisher-men [ there are two types of castes in this group in this district 'Bote' (2562 size of population) and 'Maghi' (408 size of population) they collect the fish from the rivers and sell in local market and others], washer-men, gardeners, carpenters, oil pressers, etc. These groups are usually the poorest and amongst the most disadvantaged groups of village.
- d. Tailors: in rural area of this district tailoring, traditionally is treated as an occupational job but recently this concept has changed even in rural area. Few people from other castes have also come into this profession. Rural tailors tend to migrate in stages, first to smaller roadside locations and then, if successful, to large towns. This is because the kinds of product demanded by the relatively sophisticated urban peasants demands a skill and experience of the tailor, making it difficult for many rural tailors to set up and run a successful business in large towns. The tailors' establishments in towns are rarely 'soap' in the sense of retail outlets but generally rented space next to, or on the porch, of a cloth shop. In the urban areas people have involved in this occupation across various castes

<sup>&</sup>lt;sup>99</sup> this information has taken from 'Chitwan barbers union' in 2005 march ,'Thakur' a occupational caste of barber

as a business. Majority of tailors have come either from other districts of Nepal and a few of them were from India. The existence of a large number of tailors in the towns indicate that tailoring as an occupation still provides income for many poor households yet for a vast majority of them, it provides a minimal livelihood rather than a business enterprise in usual sense.

- e. Metal-workers: In the hills towns and rural area of the district where historically iron, brass and copper work was done by specific 'Vishwokarma' and sub-castes of Newars craftsmen. However, the small scale production of household utensils and vessels has declined drastically over the past twenty-five years. It is because of the competition from cheap mass manufactured products. The number of metalworking establishments engaged in this activity are using the simplest tools rather than a business enterprise.
- f. Cobblers. Sarkis shoemaking leather-working, an occupation previously employing some of the underprivileged and poorest households, the cobblers (sarkis), is on the decline because of competition from massmanufactured footwear. Only in the largest urban areas a few shoemakers can find a foothold by making modern black shoes for the wealthier townsfolk.
- g. Small business Reduced income in peasant households has forced many to turn to various non-agriculture sources including small business to supplement their farm income. At the same time relatively advantaged peasants and large landowners also began to look for investment possibilities outside agriculture. The term 'small business, is used in the widest sense in as much as it includes the sellers of home-cooked food and sweets, itinerant petty hawkers and peddlers who combine commodity production on a minute scale with other equally marginal forms of activity, as well as the small businessmen with recognizable, if often simple, premises. In towns peddlers and hawkers constitute the most numerous stratums and the most vulnerable. The trade sub-sector are: textiles and

garment selling activities, fruits and vegetables sellers, cosmetic goods sellers, photo-poster selling activities, tea and sweets, engaged in selling cigarettes and nuts, shoes, bags, dolls and toys, etc. Under the service sector, the business activities are: shoe repairing and polish work, hair cutting, tailoring, gas lighter refilling, umbrella and light repairing work etc.

- h. Shop keeping In the 1960s in the process of development of Chitwan which is known as 'Rapti Valley', there was a tremendous increase in the number of small shops both in rural and urban areas which stock cheap household goods and groceries. This surge reflected a combination of increasing pressure on rural incomes, growth of demand for imported goods, and exceptionally low entry costs into this particular branch of business.
- i. Hotel and Catering The growth of towns particularly along the roadsides of east-west and north-south high-ways has been associated with a massive increase in the number of establishments providing foods and drinks for travelers and tourists, and for those working in the town and unable to go home for males or refreshments.
- **j.** Service and repairing businesses service and repairing business activities in this district have been increasing with its development. Since 1960s there has been a rise in these businesses. Probably the most common of these are the small watch repair, radio repair businesses and workshops for motor vehicles of all kinds. Technical skills are required for these services which also limit entry to some extent.
- k. Construction workers: most construction workers are either landless labourers, or seasonal migrant (e. g., small farmers who migrate during slack seasons to supplement their yearly subsistence). In the local people many of them are women who come with their families. Those labourers who come from India (Bihar) or eastern part of Nepal from Terai are men labourers. Hiring is done by middlemen ("Thekadar", i.e. gang leader or a kind of subcontractor). Sometimes these workers are contracted directly from rural areas. In some urban areas, construction workers wait at a

particular location for the subcontractors to come and hire them for the day. Some work is unskilled (e.g., earth digging or brick breaking), other skilled (e.g., masonry, carpentry, painting and plumbing). Women are most often hired for unskilled but still difficult work (e.g., brick breaking, as a helper to the skilled labour).

#### 4.6 Survey Methods of Informal Sector

The features of informal sectors include their small size, high mobility and turn over, seasonal variations in business activity in specific areas, lack of recognizable features of identification/location, lack of usable business records, possible reluctance to survey participations etc. further reason is it was often believed in the past that informal sector units and their activities were unmeasurable and it was impossible to conduct statistical survey of the informal sector.

Meanwhile, the experience gained in a number of countries has shown that survey data on the informal sector can be obtained with acceptable quality, provided the survey design and operations are adapted to the particular characteristics of the informal sector. This may require modifications of traditional survey methods or even the development of new methods. There are various methods for surveying the informal sector rather than one single method only. The most appropriate method always depends upon the measurement objectives pursued, which are determined by the data requirements of each country. A combination of survey methods can be useful for a development of comprehensive programme of informal sector data collection.

Informal sector employment and/or unregistered employment have been measured through household surveys by a large number of countries. In Nepal, unregistered employment used to take information from informal sector through 'Report on the Nepal Labour Force Survey-1998/99. Establishment surveys will be applicable where the informal sector activities are registered. The present study assumes that the informal sector activities are unregistered which was the case in Nepal. Mixed household and enterprise surveys have

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proven to be the most suitable survey approach if the aim is to collect comprehensive data on the informal sector as a whole and the various segments. Independent informal sector surveys using mixed household and enterprise survey approach which has been used in India to collect the data in informal sector or unorganised sector, are based on a multi-stage design involving following steps:

- 1. Selection of sample areas as PSUs.
- 2. Household listing or interviewing
- 3. Selection of sample household with owners of informal sector businesses as USUs
- 4. Main interviewing of sample households and business owners.

The present study has mainly followed this method to take information from rural areas. It has to try as far as possible by using appropriate size, stratified according to the density of informal sector activities of different types of occupations. Some types of informal sector activities which tend to be concentrated heavily in specific areas, with a view to ensuring an adequate representation of all such activities in the sample and reducing clustering effects which may be seen in urban areas. To cover the homeless respondents in informal sector, it was tried to obtain the information at the working spot both in urban as well as rural areas but it became more fruitful in urban area due to heavy concentration of such employees in a specific area.

Many informal sector activities are subject to seasonal and other variations over time. The information of informal sector activities were taken within three months' period and the questionnaire has included most of the activities which had been done within one year and at the time of interview.

## 4.7. Technique of Analysis

We have already explained about the methodology of the data collection and sampling procedure of the study areas in chapter-1. These collected data have been analyzed of the study area under informal sector activities in different chapters (v, vi and vii) following this. In these chapters to attain the objectives specified by related hypothesis, various analytical methods have been used depending upon the nature and type of data concerned with the related variables in the informal sector. Different methods for testing different hypotheses were adopted. For analyzing the results, help of computer was taken. Statistical Package for Social Sciences (SPSS) Version 13.0 was used to find a statistically significant relationship. To meet the nature of the objectives and corresponding hypotheses, the following techniques have been used which are summarized as follows:

- 1. To describe the employment pattern and characteristics of informal sector activities under various classifications in most of the cases  $\chi^{2}$ -test has been used. In those few cases where the  $\chi^{2}$ -test is not applicable, simple tabular form in percentage basis technique has been used to describe the relation between related variables.
- To find out and to compare the relative productivities between related variables under informal sector activities Arithmetic Mean, Correlation Coefficient, t-test, z-test, p-value, Paired Samples Mean test and Independent Samples mean test have been used.
- 3. To estimate the relation between income and employment under different occupations and related variables in informal sector activities Multiple Regression in Cobb-Douglas form (in log<sub>e</sub> linear i.e. e-based) technique has been used to find out the association between dependent and explanatory variables in income earning functions.

## Conclusion

The organized or modern sector in terms of establishments employing 10 or more workers and makes a small size around 7 to 10 percent of the total employment was defined as a formal sector and the remaining 93 to 90 percent of the total labour force including agriculture workers were defined as unorganized or informal sector but for operational purpose only nonagricultural except formal sector workers was defined as informal sector workers in Nepal in 1998/99. Thus, unorganized sector is very large and classified a) agriculture b) Non-agricultural informal sector hence informal sector is a subset of unorganized sector. NLFS-1998/99 has defined as a person whose main job is not in agriculture and working as a employee in a private unregistered company or the other where the number of employees are less than 10 or operating own business with no employees or operating own business with regular paid employees having less than 10 employees or contributing family member without pay or others. The available statistical data shows that it is not only sketchy but also inconsistent.

Micro-finance activities play significance positive role to the development of informal sector activities the history of informal micro finance institutions in Nepal is immemorial but the history of formal institution is just five decades old. Micro-finance institutions have grown like mushroom especially after the restoration of democracy in 1990. There are thousands of micro-finance institutions in operation. Nepal government, NGOs and INGOs have been running a number of micro credit projects in the name of poverty alleviation. Very few people in informal sector are facilitated from these activities.

In organized sector, the minimum monthly wage rate was started on the basis of skill category in Nepal since 1965. The time series of minimum monthly wage rate shows that the range of wage rate between different categories except some few cases continuously has been decreasing. The present study has related to the wage rate of 2003 in the series where the minimum daily wage rate per worker was NRs. 90 and for child labour or minor wage rate was NRs. 73 per day.

The history of informal activities in Nepal is heterogeneous character like other developing countries but differ in development situation and mostly traditional types in backward rural areas. Specially, in new urban areas the development of this sector is going toward modern development type rather than traditional caste basis. Some of the informal sector activities in Nepal are: hair dressers, beauticians, money changers, bidi workers, rickshaw pullers, kiosk operators, plumbering, mechanics, head load workers, garbage

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pickers, vegetable sellers, fruit sellers, meat shop, second hand cloth sellers or new readymade clothes sellers, tailoring, textile workers, wood carvings, watch repairs, furniture carpenters, fire wood collectors and sellers, etc.

The development of organized sector in Chitwan district is not old. Only oneeighth (12.96 prcent) of the total households of the district completely depended on agriculture land, just greater than one-fourth (26.16 percent) households were in land, livestock and poultry, and more than one-third (35.35 percent) households were in land and livestock. In 2001, according to the latest census, 79.3 percent of the total households were under not-having economic activity. It meant, their work was not related to business purpose or not registered form or they were not paying tax according specific tax law. Most of the unorganized sector lies in this criterion. The share of unorganized sector in the district is very large and in last census, nine-tenth (93 percent) of age 10 years and more were employed in this sector and in elementary occupations it was 17 percent. The main informal sector activities in this district are: rickshaw pullers, bamboo products, tailoring, vegetable sellers, fruits sellers, construction workers, providing services to hotel and catering, fire wood collection and selling works, etc.

There are various methods for surveying the informal sector rather than one single method only. The most appropriate method always depends upon the measurement objectives pursued which is determined by the data requirement of each country. According to the definition of informal sector in Nepal and the present study, has used mixed household and enterprises survey methods to collect the information from informal sector.

In the following chapter our effort would be to analyze the pattern and characteristics of employment in Chitwan district using field report of the informal sector sample survey.

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## CHAPTER-V PATTERN OF EMPLOYMENT IN INFORMAL SECTOR IN CHITWAN DISTRICT

In the previous chapter we have analyzed the employment situation of Nepal in different sectors (organized, unorganized). According to our objectives of the study this chapter provides analysis of sample survey of informal sector in Chitwan district. Employment pattern and characteristics of employment of informal sector activities of the respondents have been analyzed comprehensively as far as possible on the basis of sex, basic features, age, industrial classification, labour categories, location and size classification.

#### 5.1 Basic features of the respondents

We define what we mean by  $U_1$ ,  $U_2$  and rural as under:

- U1: The area of municipality which is old and developed, also known as "Bharatpur Nagarpalika" in Chitwan district of Nepal.
- U<sub>2</sub>: The area of the "Ratnanagar Nagarpalika" (municipality) which is new and less developed compared to "Bharatpur Nagarpalika".

Urban: The areas of both municipalities of the district.

**Rural**: The area, which is inhabited by villagers having mostly agricultural activities and the VDC (Village Development Committee) lie in the area.

Here the literacy of the respondents in different locations is examined first. In the context of literacy, total number of respondents was classified between male and female, urban and rural,  $U_1$  and  $U_2$ , which is shown in Table 5.1. In  $U_1$ , 83.7 per cent were literate and among them 86.1 per cent were males and 79.0 percent were females. In  $U_2$ , 87.8 per cent were literate, in which 90.2 per cent were males and 81.0 per cent were females. In case of rural area, 82.2 per cent were literate, in which 82.2 per cent were males and 82.4 per cent were females. In this district, 84.0 per cent of those employed in the

informal sector were literate. However, the distribution of male and female in different locations was not found significantly different in informal sector. Most of the persons who were from outside of the district go to  $U_1$ . So, the figure of literacy of  $U_1$  was found to be lower than that in  $U_2$ .

Location	Literacy	Male	Female	Total	$\chi^2$ values
U <sub>1</sub>	Literate	105 (86.1)	49 (79.0)	154 (83.7)	1.864
	Illiterate	17 (13.9)	13 (21.0)	30 (16.3)	
	Total	122 (100.0)	62 (100.0)	184 (100.0)	
U <sub>2</sub>	Literate	55 (90.2)	17 (81.0)	72 (87.8)	2.121
	Illiterate	6 (9.8)	4 (19.0)	10 (12.2)	
	Total	61 (100.0)	21 (100.0)	82 (100.0)	
Urban	Literate	160 (87.8)	66 (79.5)	226 (85.0)	2.773
	Illiterate	23 (12.6)	17 (20.5)	40 (15.0)	
	Total	183 (100.0)	83 (100.0)	266 (100.0)	
Rural	Literate	97 (82.2)	28 (82.4)	125 (82.2)	0.005
	Illiterate	21 (17.8)	6 (17.6)	27 (17.8)	
	Total	118 (100.0)	34 (100.0)	152 (100.0)	
Total	Literate	257 (85.4)	94 (80.3)	351 (84.0)	1.401
	Illiterate	44 (14.6)	23 (19.7)	67 (16.0)	
	Total	301 (100.0)	117 (100.0)	418 (100.0)	

Table 5.1: Distribution of Literacy by Sex

Figures within parentheses are percentage

Table 5.2: Distribution	of Marital Status by	/ Location
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Characteristics	Description			$\chi^2$ values	
		Rural	Urban	Total	
Marital status	Married	140 (92.1)	240 (90.2)	380 (90.9)	0.414
	Unmarried	12 (7.9)	26 (9.8)	38 (9.1)	
	Total	152 (100.0)	266 (100.0)	418 (100.0)	
Residence	Rented	61 (40.1)	204 (76.7)	265 (63.4)	55.716*
	Own house	91 (59.9)	62 (23.3)	153 (36.6)	
	Total	152 (100.0)	266 (100.0)	418 (100.0)	

\*0.01 level of significance; figures within parentheses are percentage

Area-wise marital status and residential situation of the respondents have been shown in Table 5.2. Among the respondents 90.9 per cent were married in which 92.1 per cent of rural respondents were married and 90.2 per cent urban respondents were married. Hence, the distribution of marital status between locations was not found significantly different. 63.4 per cent of the total respondents (418) used rented residence during informal activity. Around one-third of the respondents were found working (36.6 per cent) in informal sector through their own houses. Moreover, 40.1 per cent in rural and 76.7 per cent in urban were rented. Thus, the distribution of residence of the respondents between location was found significantly different. It meant that the significant number of respondents in urban location were in rented houses as compared to the situation in rural location.

Characteristics	Description		$\chi^2$ values		
		Male	Female	Total	
Residence	Rented	198 (65.8)	67 (57.3)	265 (63.4)	2.633
	Own house	103 (34.2)	50 (42.7)	153 (36.6)	
	Total	301 (100.0)	117 (100.0)	418 (100.0)	
Marital Status	Married	272 (90.4)	107 (91.5)	379 (90.7)	0.122
	Unmarried	29 (9.6)	10 (8.5)	39 (9.3)	
	Total	301 (100.0)	117 (100.0)	318 (100.0)	

Table 5.3: Residence and Marital Status by Sex

Figures within parentheses are percentage

Residential situation and marital status of the respondents have been shown in Table 5.3. It was found that 65.8 per cent male respondents and 57.3 per cent female respondents employed in different informal sector activities were in rented houses. The sex distribution between rented and own house was not found significantly different. In the total, around two-third (63.4 per cent) respondents were in rented houses. Around nine-tenth (90.7 per cent) respondents were married. 90.4 per cent male and 91.5 per cent female respondents were married. Hence, the distribution of marital status between sex was not different significantly.

## 5.2 Employment Pattern on the basis of Age

Characteristics	Description		$\chi^2$ values		
		Male	Female	Total	
Age Group	10-24 25-49 50 and above	41 (13.6) 230 (76.4) 30 (10.0)	12 (10.3) 94 (80.3) 11 (9.4)	53 (12.7) 324 (77.5) 41 (9.8)	0.974
	Total	301 (100.0)	117(100.0)	418 (100.0)	

Table 5.4: Distribution of Working Age and Sex

Figures within parentheses are percentage

Age group of the total respondents was distributed between sex which has been shown in Table 5.4. Only 12.7 per cent of the total respondents were in child labour and in youth labour group while more than three-fourth (77.5 per cent) of the total respondents were in 25-49 age groups in which 76.5 per cent were male respondents and 80.3 per cent were female respondents. Only 10.1 per cent of higher age group (50 and above) were in informal sector. The distribution of the respondents between different age groups and sex was found not to be significantly different. It meant, the number of the total respondents in different age groups in the term of male and female was more or less proportionately distributed.

Characteristics	Description			χ² values		
		Rural	Urban	Total		
Age Group	10-24 25-49 50 and above	14 (9.2) 115 (75.7) 23 (15.1)	39 (14.7) 209 (78.6) 18 (6.7)	53 (12.7) 324 (77.5) 41 (9.8)	8.9**	
	Total	152 (100.0)	266 (100.0)	418 (100.0)		

Table 5.5: Distribution of Working Age and Location

\*\*Significance at 0.05 level; figures within parentheses are percentage

Total respondents of different age group were distributed in different locations which have been shown in Table 5.5. More than three-fourth respondents in each location were from 25-49 age group. The size of urban of 25-49 age

group was greater than rural. More than three-fourth (77.5 per cent) respondents were from 25-49 age group. The size of child and youth age group (10-24) in rural was around one tenth (9.2 per cent) while in urban it was around one seventh (9.2 per cent) while in urban it was around one seventh (14.7 per cent) in urban. The size of higher age group in rural was 15.1 per cent while urban was 6.7 per cent. One-tenth respondents were from 50 and above age group. Thus, the distribution of respondents of different age group between rural and urban locations was found significantly different signifying the role of the location in informal sector activities and age of the participants.

Age group	n					C	aste					Total	
(Years)		Brahmin/ Chhetri		Vaisya		Da	Dalit		lim	Ot	hers		
		М	F	М	F	М	F	М	F	М	F	М	F
		n=100	n=74	n=117	n=123	n=39	n=115	n=120	n=4	n=25	n=1	n=301	n=117
10-14 (Child)	3	0.0	0.0	0.0	0.0	2.6	6.6	0.0	0.0	4.0	0.0	0.7	0.9
15-24 (Youth)	50	8.0	8.1	9.4	17.4	23.1	6.7	30.0	0.0	20.0	0.0	12.9	9.4
25-44 (Prime working)	295	76.0	74.3	73.5	73.9	48.7	80.0	60.0	75.0	56.0	100.0	68.8	75.2
45+ (Higher age)	70	16.0	17.6	17.1	8.7	25.6	6.7	10.0	25.0	20.0	0.0	17.6	14.5
Total	418	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 5.6: Distribution of Working Age, Castes and Sex

Sex-wise distribution of each caste by working age group has been shown in Table 5.6. Child labour had been seen in both sexes of Dalit while male child labour is found in others. Around one-fourth (25.6 per cent) Dalit males which was the largest per cent among the castes were from higher age. On the other hand, around one-fifteenth (6.7 per cent) Dalit females were working in various informal sector activities and were in the higher age group. In any age group, both sexes of Brahmin/Chhetri equally participated in informal sector activities. Larger per cent of higher age of female and larger per cent of male of higher age of male of Vaisya were employed in the informal sector activities.

Age group	n		Caste													
(yrs)		Brahman/chhetri		nhetri	Vaisya		Dalit		Muslim			Others				
		U1	$U_2$	Rural	U1	$U_2$	Rural	U1	$U_2$	Rural	U1	$U_2$	Rural	U1	$U_2$	Rural
	418	n=87	n=31	n=56	n=57	n=27	n=56	n=14	n=12	n=28	n=12	n=9	n=3	n=14	n=3	n=9
10-14	3	0.0	0.0	0.0	0.0	0.0	0.0	7.1	8.3	0.0	0.0	0.0	0.0	7.1	0.0	0.0
15-24	50	5.7	9.7	10.7	12.3	14.8	7.1	42.9	25.0	3.6	16.7	22.2	66.7	21.4	33.3	11.1
25-44	295	83.9	74.2	62.5	75.4	77.8	69.6	35.7	41.7	75.0	66.6	66.7	33.3	57.2	66.7	55.6
45+	70	10.4	16.1	26.8	12.3	7.4	23.3	14.3	25.0	21.4	16.7	11.1	0.0	14.3	0.0	33.3
Total	-	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Table 5.7: Distribution of Working Age, Castes and Location

The age distribution of different castes in different locations has been depicted in Table 5.7. The highest percentage of each caste in most of the locations was from prime working group (25-44). Relatively larger number of respondents of Dalits were found in rural area compared to other castes. Larger per cent of higher age group of Brahmin/ Chhetri and Vaisya were working in rural informal sector activities compared to each U<sub>1</sub> and U<sub>2</sub>. More than 70 per cent of U<sub>1</sub> and U<sub>2</sub> of Brahman/Chhetri and Vaisya were from prime working age group. Among the castes, largest per cent of rural was "others" caste. Muslim mostly worked in urban locations.

Age	n	Sex									
group (yrs)		Male		Female							
, , , , , , , , , , , , , , , , , , ,		U <sub>1</sub>	U2	Urban	Rural	U1	U2	Urban	Rural		
	418	n=122	n=61	n=183	n=118	n=62	n=21	n=83	n=34		
10-14	3	0.8	1.6	1.1	0.0	1.6	0.0	1.2	0.0		
15-24	50	14.8	18.0	15.8	8.5	8.1	9.5	8.4	11.8		
25-44	295	72.1	67.2	70.5	66.1	79.0	76.2	78.3	67.6		
45+	70	12.3	13.2	12.6	25.4	11.3	14.3	12.1	20.6		
Total	-	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		

Table 5.8: Distribution of Prime Working Age, Sex and Location

It was found that the use of child labour in both males and females was in urban areas but its size was very small. The distribution of male employed in different urban locations was more or less same proportion in each different age group but in case of rural it was different. Larger per cent of youth were employed in urban compared to rural area of male respondents but in case of female it was the reverse situation. The volume of prime working age was 70.5 per cent. The size of youth labour of male was greater than female respondents. Relatively larger per cent of female than male respondents were in prime working age group (25-44).

Sex	n		Age group					
		Child labour n=3	Youth labour n=50	Prime working n=295	Higher Age n=70	N=418		
		10-14	15-24	25-44	45+			
Male	301	0.7	13.0	68.8	17.6	100.0		
Female	117	0.9	9.4	75.2	14.5	100.0		
Total	418	0.7	12.0	70.6	16.7	100.0		

(percent)

 Table 5.9: Distribution of Sex by Prime Working Age

Table 5.9, shows the "child labour", "youth labour", "prime working" and "higher" age of females and males employed. Females had the higher percent in "child labour" and "prime working" age group than in males. Percentage distribution of male and female in different age groups was found more or less same or same proportion. Involvement from "higher age" group in each sex was greater than from "youth labour" age group in the informal sector. Three fourth female respondents were in prime working age group which was the larger than male respondents. In higher age the size of males was greater than females.

Age group			Total		
(in years)	n	U₁ n=184	U₂ n=82	Rural n=152	N=418
10-14 (Child labour)	3	1.1	1.2	0.0	0.7
15-24 (Youth labour)	50	12.5	15.9	9.2	12.0
25-44 (Prime working)	295	74.5	69.5	66.4	70.6
45+ (Higher Age)	70	12.0	13.4	24.3	16.7
Total	418	100.0	100.0	100.0	100.0

 Table 5.10: Distribution of Location by Age Group (percent)

In the Table 5.10, the total number of employed in each location was distributed between different age groups. 'Prime working age' was the highest among the age group in each location and the size in urban was greater than rural. Higher age group was greater in rural than each of  $U_1$  and  $U_2$ . Around three-fourth (74.5 percent) respondents of  $U_1$  were in "prime working" age group. Around one-fourth (24.3 percent) respondents, which was the larger size among the locations, of rural was found in higher age group.

Attributes	n		)	Total		
		10-14 n=3	15-24 n=50	25-44 n=295	45+ n=70	N=418
Services	163	0.0	15.3	69.9	14.7	100.0
Purchase and sales	127	2.4	11.8	70.1	15.7	100.0
Production and sales	7	0.0	0.0	42.9	57.1	100.0
Purchase, production and sales	121	0.0	8.3	73.6	18.2	100.0
Total	418	0.7	12.0	70.6	16.7	100.0

Table 5.11: Distribution of Industrial Classification Age Group by (percent)

The number of respondents of each industrial activity was distributed between different age group. About 70 percent of "service activity" was from "prime working" age group. 57.1 percent respondents of "production and sales activity" were in "higher age" group, which was the largest size among the industrial activities. Around 70 percent in each industrial activity except "production and sales" were from "prime working" age group in informal sector

activities. Child labour was found in "purchase and sales" activity but its size was small (Table 5.11).

					(	Percent)
Attributes	n		Total			
		10-14	10-14 15-24 25-44 45+			
		n=3	n=50	n=295	n=70	
Mobile	124	1.6	13.7	70.2	14.5	100.0
Semi- Mobile	47	0.0	8.5	80.9	10.6	100.0
Fixed	247	0.4	11.7	68.8	19.0	100.0
Total	418	0.7	12.0	70.6	16.7	100.0

Table 5.12: Distribution of Mobility by Age Group

Table 5.12 shows that each "mobility activity" was separated between different age groups. Seven-tenth (70.2 percent) of Mobile Activity was captured by prime working age group and around one-eighth (13.7 percent) were from youth labour in this activity. Four-fifth respondents (80.9 percent) of "Semi-Mobile Activity" were in prime working age group and 68.8 percent of "fixed activity" was in this age group. More than four-fifth (80.9 percent) respondents of "semi mobile" were in prime working age group which was the largest size among the criteria of "mobility" but their size was very small. 19 percent of fixed activity was from old age group whereas it was 14.5 percent from "mobile activity". Among the respondents from the 'higher age', the largest size was in "fixed activity". Among the respondents higher age the smallest in size was from "semi mobile".

# 5.3 Industrial Classification of respondents employed in the informal sector:

Total respondents were explained on the basis of industrial classification. The total respondents were distributed in different industrial classification i.e., they were employed in "service activities"; in "purchase and sales" activities; "production and sale activities"; and "purchase, production and sale activities" according to their nature of activity which are explained on the basis of mobility, sex, locations etc.

		Types of mobility					Total			
Industrial Classification	n	Mobile		Semi-	Mobile	Fixed				
Classification		М	F	М	F	М	F	М	F	Т
		n=10 7	n=17	n=23	n=24	n=17 1	n=76	n=30 1	n=117	N =418
Services	163	46.8	0.0	65.2	0.0	46.8	23.7	48.2	15.4	39.0
Purchase and sales	127	33.6	58.8	21.7	70.8	18.1	36.8	23.9	47.0	30.4
Production and sales	7	0.9	0.0	0.0	4.2	2.3	1.3	1.7	1.7	1.7
Purchase, production and sales	121	18.7	41.2	13.1	25.0	32.8	38.2	26.2	35.9	28.9
Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 5.13: Distribution of Industrial Classification, Mobility and Sex

(Percent)

The distribution of industrial classification by types of "mobility" and sex has been shown in Table 5.13. No female respondent was found in "mobile" and "semi-mobile" activity under "services sector". The largest size in "mobile" for male respondents was "services sector" and its size was around half (46.8 per cent) while for female under "mobile" activity it was "purchase and sales" and its size was just less than three-fifth (58.8 per cent). The remaining female respondents in "mobile" were in "purchase, production and sale" activity. Females were not found at all in "services" and "production and sale" in "mobile activity". Around two-third (65.2 per cent) of male respondents in "semi-mobile" were in "purchase and sales" activity. The largest size for each sex was "fixed" activity. It meant, either male or female respondents was preferred to "fixed activity". In "fixed activity" too, the largest size for male was "services" and for female here it was "purchase, production and sales".

Around half (48.2 per cent) of the male respondents and around half (47.0 per cent) of the female respondents were in "services" and "purchase and sells" respectively. Around one-fourth (26.2 per cent) male respondents and more than one-third (35.9 per cent) female respondents were in "purchase,

production and sales" activity. Only 1.7 per cent of the total respondents were in "production and sales" activity under informal sector.

It is derived that the male respondents preferred to "services sector" while female respondents preference was for "purchase and sales" activity and the least preferred by each was "production and sales" activity. This we can find from Table 5.14.

 Table 5.14: Distribution of Sex and Location by Industrial Classification

 (Percent)

Attributes	n	Location					
		Rural		Urban			
		М	F	Т	М	F	Т
		n=118	n=34	n=152	n=183	n=83	n=266
Services	163	43.2	5.9	34.9	51.4	19.3	41.4
Purchase and sales	127	16.9	41.2	22.4	28.4	49.4	35.0
Production and sales	7	2.5	0.0	2.0	1.1	2.4	1.5
Purchase, production and sales	121	37.3	52.9	40.8	19.1	28.9	22.2
Total		100.0	100.0	100.0	100.0	100.0	100.0

In rural location, the largest size of industrial group was "purchase, production and sales" activity and its volume was around two-fifth (40.8 per cent). The second largest activity in rural area was "services" as, its volume was more than one-third (34.9 per cent) where the size of male was just greater than two-fifth (43.2 per cent) and female was 5.9 per cent only. Female respondents were totally absent in "production and sales" activity in the rural area.

In urban areas the largest show was occupied by the "services" activity where more than half (51.4 per cent) of the male respondents and around one-fifth female (19.3 per cent) respondents were employed while second largest activity was "purchase and sales". In each activity the gap between males and females was greater in rural areas.

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## 5.4 Labour Categories in Informal Sector:

		(percent)
Types of employment	Frequency (n)	Percent
Self-employed (single person)	159	38.0
Family members employed	148	35.4
Family and unpaid others employed	6	1.4
Family, unpaid and wage earners employed	40	9.6
Self-employed and wage earners employed	36	8.6
Wage earning employed	29	6.9
Total	418	100.0

Table 5.15: Types of Employment in the Informal Sector

It is found from Table 5.15 that the largest size of employment among the total respondents was self-employed i.e. single person employed and it had covered 38 percent. Second largest size was family members employed and its size was 35.4 percent remaining types of employment were small and disposed in many different ways. Self-employed with single person and family members employed were mostly leading types of employment and had been observed in informal sector in Chitwan district during this study. Besides these two types, around one tenth (9.6 percent) respondents were in "family, unpaid and was earners employed". The smallest size among the types of employment was "family and unpaid others employed" which was less than two percent of the total respondents.

Table 5.16 shows the distribution of each sex under different type of employment. Just less than three-fifth (57.3 percent) female respondents were in "family member employed" and only 3.4 percent of female respondents were in "self-employed and wage earners employed". There were no females respondents on 'female and unpaid other employed'. The largest size of males was 'self-employed' and the least one was 'family and unpaid other employed'. Second largest size for males was family "member employed" and for females it was "self-employed". "Self-employed" and "family member employed" taken together was covered 73.4 percent of the

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total types of employment. Among the types higher percentage of male respondents was "self employed" while it was "family member employed".

Type of employment	n	Sex			
		Male		Ferr	nale
		n	%	n	%
Self-employed	159	130	43.2	29	24.7
Family members employed	148	81	26.9	67	57.3
Family and unpaid others employed	6	6	2.0	0	0.0
Family, unpaid and wage earners employed	40	26	8.6	14	12.0
Self-employed and wage earners employed	36	33	11.0	3	2.6
Wage earning employed	29	25	8.3	4	3.4
Total	418	301	100.0	117	100.0

 Table 5.16: Distribution of Sex by Types of Employment

(percent)

Thus, it is evident that the informal sector activities are mainly centered around self-employed and family employment. Others are not so important, although there taken together are around one-fourth of the total employment as per our survey results.

## 5.5 Location perspective of Informal Sector Employed

Location perspective is one of the important classifications of informal sector of the study. Total respondents were explained on the basis of mobility i.e., mobile, semi-mobile, and fixed where they are working their business i.e., particular spot were own-house compound; rented premises; friends or in their relative house; public places; or at construction with respect to sex, location has explained. Similarly, the means of mobility by sex and location have also been explained.

Characteristics Description				$\chi^2$ values	
		Male	Female	Total	
Mobility	Mobile Semi-mobile Fixed	107 (35.5) 23 (7.6) 171 (56.8)	17 (14.5) 24 (20.5) 76 (65.0)	124 (29.7) 47 (11.2) 247 (59.1)	25.907*
	Total	301 (100.0)	117 (100.0)	418 (100.0)	

Table 5.17: Distribution of Sex and Mobility

\* Significance at 0.01 level; figures within parentheses are percentage

Distribution of nature of mobility between sex has been shown in Table 5.17. More than half (56.8 per cent) of the male respondents were under "fixed activity" while around two-third (65.0 per cent) of the female respondents were in this activity. Lower per cent of female and higher share of male was found in "mobile" activity. More female and less male was found under "semimobile" activity in informal sector but the share of the activity was around onetenth (11.2 per cent) of the total. The distribution of males and females between different criteria of "mobility" was found highly significant.

Table 5.18: Dist	ribution of Lo	ocation and	Mobility
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Charac	teristics		$\chi^2$ values		
Desc	ription	Rural Urban		Total	
Mobility	Mobile Semi- mobile Fixed	36 (23.7) 16 (10.5) 100 (65.8)	88 (33.1) 31 (11.7) 147 (55.2)	124 (29.7) 47 (11.2) 247 (59.1)	4.803
	Total	152 (100.0)	266 (100.0)	418 (100.0)	

Figures within parentheses are percentage

Table 5.18 shows the statistical test of the mobility and location distribution of respondents. One-third urban respondents and around one-fourth (23.7 per cent) rural respondents were in "mobile" activity while two-third (65.8 per cent) rural respondents and more than half (55.2 per cent) urban respondents were in "fixed activity". "Mobile" in urban, "fixed" in rural was found preferred and

the chi-square test between "locations" and "mobility" did not differ significantly. Therefore it can be argued that mobility levels between urban and rural areas are almost similar within any meaningful difference.

Characteristics Description			$\chi^2$ values		
		U <sub>1</sub>	U2	Total	
Mobility	Mobile	58 (31.5)	30 (36.6)	88 (33.1)	1.872
	Semi-mobile	19 (10.3)	12 (14.6)	31 (11.7)	
	Fixed	107 (58.2)	40 (48.8)	147 (55.2)	
	Total	184(100.0)	82 (100.0)	266 (100.0)	

Table 5.19: Distribution in Different Urban Locations and Mobility

Figures within parentheses are percentage

The distribution of respondents between "mobility" and urban locations has been shown in Table 5.19. We know that  $U_1$  is old and developed with more than double population in 2001 compared to  $U_2$ . It was found that the size of "mobile" and "semi-mobile" in  $U_2$  was greater according to the percentage basis of each size. Around three-fifth (58.2 per cent) activity in  $U_1$  was found in "fixed" activity but it was half (48.8 per cent) in  $U_2$ . Around seven-tenth (69.2 per cent) respondents of the total urban activities were found in  $U_1$ . Similarly the absolute size of each activity was greater in  $U_1$ . However, the distribution of urban respondents between two urban locations and different criteria of "mobility" was not significantly different.

Distribution of respondents of sex, location, and mobility by working places which has been shown in Table 5.20. Here, we have excluded two items from the list of location of work due to very small in size being not applicable for statistical tool. The two items were, "friend or relative places" and "construction places" and their size were 2 and 10 respectively in terms of absolute numbers. Out of the total size of the respondents being 418.

Characteristics	Description	Working places			$\chi^2$ values	
		Own house	Rented premises	Public places	Total	
		compound n=85	n=165	n=156	n=406	
Sex	M F	57 (19.7) 28 (24.1)	114 (39.3) 51 (44.0)	119 (41.0) 37 (31.9)	290 (100.0) 116 (100.0)	3.404
Location	U <sub>1</sub> U <sub>2</sub> Rural	21 (11.5) 9 (11.3) 55 (38.5)	85 (46.4) 34 (42.5) 46 (32.2)	77 (42.1) 37 (46.2) 42 (29.3)	183 (100.0) 80 (100.0) 143 (100.0)	41.285*
Mobility	Mobile Semi- mobile Fixed	2 (1.7) 1 (2.3) 82 (33.7)	8 (6.7) 6 (14.0) 151 (62.2)	110 (91.6) 36 (83.7) 10 (4.1)	120 (100.0) 43 (100.0) 243 (100.0)	299.405*

Table 5.20: Distribution of Sex, Location, and Mobility by Working Places

\*Significance at 0.01 level; figures within parentheses show the percent

Around two-fifth male respondents were in each "rented premises" and "public place" while for female respondents were more than two-fifth (44.0 per cent) and around three-tenth (31.9 per cent) respectively. Thus in the distribution of respondents between sex and working places did not differ significantly. It meant, the distribution of male and female in different working places was not meaningfully different. Around half (46.4 per cent) of the U<sub>1</sub> respondents were in "rented premises" while in rural area it was around one-third (32.2 per cent) and for U<sub>2</sub> it was greater than two-fifth (42.5 per cent). The largest size for U<sub>2</sub> was "public place" (46.2 per cent). Under "own house compound" the largest size for "own house compound" was found in rural location. Here the distribution of the respondents between locations (U<sub>1</sub>, U<sub>2</sub> and rural) and working places (own house compound, rented premises and public places) was found different which was statistically significant.

More than 90 per cent respondents of mobile and more than 80 per cent respondents of semi mobile were found in public places. Around two-third (62.2 per cent) respondents of "fixed" were in "rented premises" and one-third of them were in "own house compound". Thus, the distribution of respondents between "mobility" and "working places" was found to be different and it was statistically different.

Category	n	%of total	% of	Sex	
			mobile	Male n=105	Female n=19
On head	13	3.1	10.5	11.4	5.3
Shoulder	2	0.5	1.6	1.9	0.0
Back	2	0.5	1.6	1.9	0.0
Cycling	25	6.0	20.2	19.0	26.3
Cart (thela)	43	10.3	34.8	28.6	68.4
Animal cart	3	0.7	2.4	2.9	0.0
Small tractor	2	0.5	1.6	1.9	0.0
Rickshaw	31	7.4	25.0	29.5	0.0
Others	3	0.7	2.4	2.9	0.0
Total	124	29.7	100.0	100.0	100.0
Not mobile	294	70.3	-	-	-
Ground total	418	100.0	_	_	_

Table 5.21: Distribution of Mobile Category by Sex

Distribution of respondents who were involved under "mobile category" between male and female has been shown in Table 5.21. 29.7 per cent of the total respondents were involved in "mobile category". More than one-third (34.8 per cent) "mobile" respondents used in "cart (thela)" and its size for male respondents was 28.6 per cent while for female the ratio was more than two-third (68.4 per cent). 93.6 per cent human capital asset had been used under mobile while for male it was 92.3 per cent and for female it was 100 per cent. It means that generally human labour was used by the respondents even when they were engaged in mobile activities. Females used the hand
cart to the maximum extent while males used rickshaw and hand carts almost equally.

This analysis suggests that persons engaged in "mobile activity" making sizable component as 30 per cent of the total respondents were engaged in such activities that required. "Mobile activities" required mainly some capital assets and for this purpose traditional "thela" (hand carts), rickshaw and cycling were most preferred mode of movement. These are the cheaper assets. Due to lack of even small amount of capital for having some mode of movement around 14 per cent respondents carried their activities without any aid of movement due to lack of even the small money to invest in that or due to smallness of their activities.

## 5.6 Size Classification in Informal Sector Employment

Total respondents of the informal sector was also classified on the basis of size i.e., number of persons employed in their businesses which is one of the important classifications in the informal sector. 'Own Account worker'; 'Micro-Enterprises'; and 'Small-Scale Enterprises' were the three categories in which the other variables i.e., sex, location, castes, mobility, industrial classification etc. and their activities were also examined. From this study the trend and nature of occupations can be explained in more systematic and meaningful way.

		S	Total		
Employment status	n	Male n=301	Female n=117	N=418	
1-person (Own account worker)	179	27.4	48.8	42.8	
2-4 (Micro enterprises)	225	69.2	47.8	53.8	
5-9 (Small scale enterprises)	14	3.4	3.3	3.3	
Total	418	100.0	100.0	100.0	

(Percent)

It is obtained from Table 5.22, that more than two third (69.2 percent) of male respondents and just less than half (47.8 percent) of female respondents were in Micro-Enterprises. Just greater than one-fourth (27.4 percent) male respondents and around half (48.8 percent) female respondents were in "own account worker". In total the size of 'own account worker' was greater than two-fifth (42.8 percent) while Micro-Enterprises was more than half (53.8 percent) of the total respondents. It was found that male respondents preferred "micro-enterprises" while female respondents preferred to "own account workers" and "micro-enterprises". This could be used to infer that males generally engaged in somewhat larger informal sector activities whereas, females were distributing their activities almost equally between own account and micro enterprises.

			E	Employment status				
Attributes		n	Own account worker 1-person n=179	Micro- enterprises 2-4 n=225	Small scale enterprises 5-9 n=14	Total N=418		
Location	Rural	152	29.1	43.6	14.3	36.4		
	Urban	266	70.9	56.4	85.7	63.6		
	Total	418	100.0	100.0	100.0	100.0		
Mobility	Mobile	124	48.0	16.4	7.1	29.7		
	Semi- mobile	47	15.1	8.0	14.3	11.2		
	Fixed	247	36.9	75.6	78.6	59.1		
	Total	418	100.0	100.0	100.0	100.0		

 Table 5.23: Distribution of Size Classification by Location and Mobility

 (Percent)

Size of the informed sector enterprises and mobility of their economic activities show inverse relationship as could be found from Table 5.23. It is derived from this table that the single person activity had their activities mainly in mobile form as 48.0 per cent work was fully mobile while another 15.1 per cent work was "semi mobile". Around 37 per cent of "non account workers"

were "fixed". Unlike this "micro-enterprises", "small scale enterprises" were mainly fixed. Only, less than one fourth of the enterprises were "mobile" or "semi-mobile". This shows that as the size of informal sector increases in term of the size of employment, mobility gets reduced while "fixed" activities become the real way of operation.

Single worker informal activities are predominately urban and similarly small scale enterprises are also mainly urban based activities as can be seen from Table 5.31. Although "micro enterprises" are more in urban areas (56.4 per cent); their presence in rural areas is only slightly lower (43.6 per cent).

 Table 5.24: Distribution of Employment Size by Industrial Classification

 (percent)

	n	%		Industrial	classification	I	Total
Employment status			Services n=163	Purchase and sales n=127	Production and sales n=7	Purchase, production and sales n=121	N=418
1-person (Own account worker)	179	42.8	55.3	31.3	0.6	12.8	100.0
2-4 (Micro enterprises)	225	53.8	25.3	31.6	1.8	41.3	100.0
5-9 (Small scale enterprises)	14	3.4	50.0	0.0	14.3	35.7	100.0
Total	418	100	39.0	30.4	1.7	28.9	100.0

It is derived from Table 5.24 that "own account worker" and "micro enterprises" are the most dominating activities in the informal sector in Chitwan district. "Small scale enterprises" make small component of the informal sector. Analysis of activities being under taken by these three groups shows that they differ in term of thrust and activities. "Own account worker" emphasis the services activities (53.3 per cent) followed by "purchase sales" (trading activities). Others are very small. But the "micro enterprises" seem to be highly diversified in all the activities but for "production and sales". In fact, it is found that "production and sales" account for a very small share in total activities. Here it is to be underlined that "micro enterprises" emphasis most on "purchase, production and sales" because in these kinds of efforts, people invest money somewhat more on production and distribution.

## Conclusion

Under the pattern of growth of informal sector in Chitwan district the various characteristics of informal sector were examined taking 418 respondents which were studied in this sector. In this chapter, the basic feature of the respondents like age, industrial classification, labour categories, location prospective and size classification with respect to sex and location was studied separately or combined. Here the conclusions are drawn on the basis of data obtained from the sample survey 2005 (field report of 418 sample respondents from informal sector employed).

Under 'the basic features of respondents' the test of literacy between sexes and location was examined which was not significantly differed in each case. Similarly, marital status and residential status between sexes was not significantly differed but in case of location (rural and urban) it significantly differed. The distribution of prime-working age between sexes did not differ significantly but it differed between rural and urban location. Participation rate of "youth labour age" group in informal sector was found less compared to "prime working age" group. The issue of child labour in informal sector was found in a small size and it was in urban location and in Dalit and 'Others' caste. It was found that low age respondents were in "mobile activity" while higher age respondents were in "fixed" activity. The distribution of 'industrial classification' between rural and urban location was found significantly differed. "Services activity" was around two-fifth of the total respondents among them around 90 percent were male respondents. Relatively larger percent of female respondents were in "purchase and sale activity". It was found that the respondents in urban preferred to services oriented activities while in rural it was production oriented activities.

Under 'labour Category' "self-employed (single person)" was largest and its size was around two-fifth (38 percent). Second largest size was "family

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member employed" and its size was just greater than one-third (35 percent) among the total respondents where larger percentage of male employed were in "self-employed" and for female employed it was 'Family member employed' and the other labour categories were small in size. In the distribution of respondents between sex and working places was not found meaningfully different but in the case of location and mobility it was significantly different.

The distribution of 'Mobility' between sexes was found to be significantly different but it did not differ in case of location. It was found that more than half of the respondents of each sex were in "fixed activities". The second priority of male was "mobile" while for female it was "semi mobile". Among the "mobile category" the largest size for male respondents was "rickshaw pulling work" and for female respondents it was "cart pulling (Thela) work" which was the second largest size for male respondents in 'moving category'. The weight of "mobile category" was 30 percent of the "mobility type". In "mobile activity" the largest three activities were "pulling carts", "cycling' and "rickshaw pulling work".

The largest size among the "size classification" was "micro-enterprises (2-4 persons)" where more than half (53.8 percent) of the total respondents were employed in which around two-third (64 percent) were male and just greater than one-third (36 percent) were female respondents. Around half of female and around seven-tenth of male employed were in "micro-enterprises". There were 86 percent 'Small-scale enterprises' in urban areas. The weight of this category was only 3 percent among the "size classification". Those workers who were employed in "own account worker", 71 percent of them were in urban area.

It was found that single person activity was mainly in mobile form as 48.0 per cent work fully "mobile" and another 15.1 per cent work "semi mobile". Around 37.0 per cent work of "own account worker" were "fixed". Unlike the "micro-enterprises" and "small scale enterprises" were mainly "fixed". Only less than one-fourth of enterprises work of "mobile" or "semi-mobile" shows that as the size of informal sector increased in term of size employment mobility is

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reduced. Single worker in informal activities is predominantly urban and "small scale enterprises" are mainly urban and based activities have been seen. The size of "micro enterprises" in urban was more than half (56.4 per cent) while in rural was less than half (43.6 per cent). It has been seen that "own account worker" emphasis services activities followed by "purchase and sales" (trading activities), other are very small in size but the "micro enterprises" seem to be very diversified in all activities while "production and sales" activity is very small. Here it is to be underlined that "micro enterprises" emphasise most on "purchase, production and sales". Thus, it is inferred here that although the informal activities are diversified between rural and urban areas, various other characteristics suggest that there is a tendency to engage in more lucrative enterprises even within the informal sector, where the effect of sex and age is well identified in terms of their preferences for the nature of activities in which they get engaged and the size of the activities which they try to the take forward.

In the following chapter we shall try to explain about income and employment situation of the study areas from the available information of the sample units.

# CHAPTER-VI IMPACT OF THE INFORMAL SECTOR ON INCOME AND EMPLOYMENT

In this chapter we have analyzed the impact of the informal sector on income and employment in Chitwan district of Nepal. Our objective here is to estimate the relative productivities in rural and urban locations with respect to other variables. According to the available data of the sample survey and taking information under the background of literacy, dependency ratio, household property, family size etc., of the respondents, income and employment of the informal sector activities have been explained. Income earning capacities of males and females, in different locations and in different age groups have been analyzed using appropriate statistical tools. Some income earning functions have been derived to find the relation between income and employment situation in various informal sector activities from the available information. Similarly, working time in different seasons, in different locations, sex, castes and occupations have been computed. Due to the constraints of time and secondary data, we could not analyze the impact of income and employment of informal sector on the basis of time series data but only crosssectional analysis has been done by using the data collected in the course of this study.

## 6.1 Introduction

This study of the informal sector activities of Chitwan district is based on sample survey. The information of the informal sector activities was taken from 418 respondents. These respondents were taken from rural and urban areas. Of these total respondents, 301 were males and 117 were females. Similarly, among the total 418 respondents, 266 were taken from urban areas and remaining 152 were from rural areas. 184 and 82 sampled units were taken from U<sub>1</sub> and U<sub>2</sub> respectively. In the present chapter we will examine the impact of informal sector on income generated and employment promoted using appropriate statistical tools.

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Family background of a respondent in any activity plays a vital role in employment and earning, especially, household property, literacy level, residence, experience of works, family size, age, sex, individual interest, political situation etc, are the key determinants of employment and earning. However, only some of these were examined due to some unavoidable reasons.

## 6.2 Family background of the respondents:

Average household literacy level, average literacy level, average dependency ratio, average household property, and average household size of the respondents were observed as a family background to explain about the informal sector activity. On the basis of these variables the differences between males and females, rural and urban locations of the respondents were also examined.

- 1: Household literacy level: sum of schooling years of the literate persons of a family divided by the number of literate family members
- **2:** Literacy level: sum of the schooling years from the literate respondents divided by its size.

Characteristics		Loca	$Z_{ru}$	$Z_{u1u2}$		
	Rural n=152	Urban n=266	U₁ n=184	U₂ n=82	values	values
Literacy level (av schooling years)	4.52, n=125	5.48, n=226	5.70, n=154	4.98, n=72	2.914*	1.641
hh Literacy level (av schooling years)	3.2362	4.0189	4.1702	3.6795	3.041*	1.357
Dependency ratio (%)	42.35	37.55	36.07	40.89	2.206**	1.646

Table 6.1: Location-Wise Distribution of Literacy Levels and<br/>Dependency Ratio

\*significance at 0.01 level; \*\* significance at 0.05 level

Literacy level of the respondent, average household literacy level and dependency ratio between different locations were estimated. Both average household literacy level and literacy level of the respondent in urban location were found greater than rural location and each was significantly different. But these two literacy levels between two urban locations (U<sub>1</sub> and U<sub>2</sub>) were not found significantly different though both were higher in U<sub>1</sub>. It can be derived from Table 6.1 that the respondents and family members both were higher educated in developed areas in informal sector activities in Chitwan district. The dependency ratio in rural location was found greater than urban location and the differences between these two locations were found significantly different. Similarly, dependency ratio in U<sub>1</sub> was found less than U<sub>2</sub> but the difference between these two urban locations was not significantly different. Therefore, we can infer that through schooling, the prospect of employment and earning even in the informal sector can be better.

Characteristics	Se		
	Male (n=301)	Female (n=117)	Z-Values
Literacy level	5.09	5.23	0.393
(av schooling years)	n=257	n=94	
hh Literacy level	3.3476	4.7290	5.109*
Dependency ratio (%)	41.44	33.79	3.305*

 Table 6.2: Sex-Wise Distribution of Literacy Levels and

 Dependency Ratio

\*significance at 0.01 level

The literacy levels between males and females were compared. Literacy level of the female respondents was found greater than male respondents but it was not significantly different. Similarly, average household literacy level of females was greater than males and the differences between the two sexes were found significantly different. On the other hand, the household dependency ratio of males was greater than females and it was significantly different. The basic indicators of informal sector show that females have more favourable prospect of income earning and employment generation but still their participation in informal sector was found less.

Location	Sex	Sample size	Av. hh size	hh Dependency ratio (%)	No of un emp/no of emp.	No of emp/ fam. Size	Av. hh lit level	hh. property (in million) NRs
U <sub>1</sub>	Male	122	4.96	39.74	0.5867	0.4059	3.5742	0.248
	Female	62	4.40	28.85	0.5242	0.5022	5.3429	0.256
U <sub>2</sub>	Male	61	4.43	39.32	0.6284	0.4091	3.6810	0.182
	Female	21	4.57	45.44	0.3810	0.4304	3.6752	0.200
Rural	Male	118	4.93	44.29	0.5864	0.3798	2.9411	0.182
	Female	34	4.82	35.61	0.4657	0.4700	4.2603	0.203
All (M and F	)	418	4.76	39.30	0.5633	0.4197	3.7343	0.215

Table 6.3: Location and Sex-Wise Distribution of Household Indicators

Average household size, average household dependency ratio, ratio of number of employed to family size, ratio of number of unemployed to number of employed of the household, average household literacy level and household property of the respondents were observed as a family background to explain about the informal sector activities. On the basis of these variables each location with sex-wise actual background of the respondents were examined (Table 6.3).

In  $U_1$ , average household size, average household dependency ratio and ratio of the number of unemployed to the number of employed in the household of males were found greater than females but the other indicators as ratio of number of employed to family size, average household literacy level and household property of females were found greater than males. It can be concluded that the family background of females in informal sector were found better than males.

In  $U_2$ , average household size, household dependency ratio, ratio of the number of employed to family size i.e. per head family employed value and household property of females were found greater than males but the ratio of

number of unemployed to member of employed and average household literacy level of males were greater than females. Similarly, in rural location, the average household size, household dependency ratio, ratio of number of unemployed to number of employed i.e. temporary unemployment burden of the family were found greater in males than females but ratio of number of employed to family size, average household literacy level and household property of females were found greater than males. It can be concluded that females were better in terms of household background in rural location. This creates a favourable environment for females in informal sector than males in rural location. It can be inferred that female respondents were found in favourable environment in informal sector activities though their participation rate was lower as compared to males in each location. Per family employed value for females in each location was found greater but temporary unemployment burden for males were greater in each location. Dependency ratio in less developed area was found greater than developed area. It shows that the earning opportunities in urban and developed areas were greater than rural and less developed areas in informal sector activities in Chitwan district. The situation of the household property shows that most of the respondents in informal sector activities were from poor family background though their present income may be high.

#### 6.3 Income Earning Status under Different Categories

Income is the amount of cash or equivalent actually received during a time/ period<sup>100</sup>. Here, income of the informal sector sampled respondents comprised the wage income, incomes from family members, income from side business, informal sector income, income from agricultural products, and other incomes obtained on daily or monthly basis in a year. Most of the earnings from informal sector activities have receipts on daily or monthly basis. So, the earning in different time/period is converted into yearly basis. The yearly income of the respondents was included for one year back period from the date of interview of the respondents. The average per capita yearly

<sup>&</sup>lt;sup>100</sup> Reynolds, L.G. (1978), 'Labour Economics and Labourer Relations', Prentice Hall of India, New Delhi, 11001.

earning and average household yearly earning of the respondents is comprised of the earnings from informal sector (IS) and earnings from other sources (OS) and their relation have been examined using sample paired mean test method under different classifications of informal sector activities.

Location	sex	n	Av. HH Earning from IS (in NRs)	Z-Values In IS	Av. HH Earning from OS (in NRs)	Correlation Coefficient ( r )
U <sub>1</sub>	Male	122	96027.87	1.002	15179.92	-0.014
	Female	62	104414.52		12912.90	-0.106
$U_2$	Male	61	70963.93	0.297	12899.25	-0.084
	Female	21	74133.33		8495.24	0.042
Rural	Male	118	68831.66	0.916	16728.03	0.039
	Female	34	76741.18		18411.76	-0.156

Table 6.4: Location and Sex-Wise Distribution of Household Earning

\*significance at 0.01 level

Average household earning from informal sector and other sources of the respondents according to location among males and females have been examined (Table 6.4). Z-test has been used in the analysis to measure the earning situation between sex in each location. In most of the cases the correlation coefficients between average household earning from informal sector and other sources were negative and approaching zero. The correlation coefficient in each case was not significant. It meant the amounts and direction of either sources were not related in degree of direction i.e., if the informal sector earning was either higher or lower and this was not affected by other sources and vice versa. Average household earnings from informal sector was found greater than average household earning from 'other sources' in each case. The average household earning of females from informal sector was found greater than males in each location but it not statistically different. Hence, we can conclude that the changing direction of average household earning from either source was not significant and correlation coefficient was found to be almost non-existent. Similarly, average

household earning from informal sector was greater with significant difference than other sources in each location and sex.

Mobility	n	Av. HH Earning from IS (in NRs)	Av. HH Earning from OS (in NRs)	t-values	Correlation Coefficient (r)
Mobile	124	73207.26	14416.16	15.308*	-0.019
Semi- mobile	47	72236.17	13586.17	8.300*	-0.096
Fixed	247	90417.96	15350.44	20.125*	-0.050

 Table 6.5: Mobility-Wise Distribution of Household Earning

\*significance at 0.01 level

Average household earning from informal sector and other sources of the respondents under different "mobility" status have been shown in Table 6.5. The correlation coefficient in each case of "mobility" was found significant and it was approximately zero with negatively. It meant, the direction of change of either resources of household income have no meaning. Average household income from informal sector was found greater than "other sources" in each case of "mobility". The average household earning from "other sources" between different "mobility" was found more or less same but it was found different in case of informal sector earning. Under "fixed" activity, the average household earning from informal sector was found highest than "mobile" or "semi-mobile" Due to similarity in nature and size of "mobile" and "Semimobile", their earnings from informal sector was found more or less same but the total amount of investment (effort, size, money, manpower, raw materials etc) in "fixed" activity was greater, so its return should be higher compared to other activities. The distribution of household incomes between informal sector and "other sources" was found significantly different.

Industrial classification	N	Av. HH Earning from IS (in NRs)	Av. HH Earning from OS (in NRs)	t- values	Correlation Coefficient ( r )
Services	163	69248.34	14661.66	16.110*	0.052
Purchase and sales	127	86988.16	14132.31	16.133*	-0.090
Production and sales	7	115914.29	28800.00	2.847**	0.113
Purchase, production and sales	121	96360.83	15136.02	14.122*	-0.152

 Table 6.6: Distribution of Industrial Classification of Household Earning

\*significance at 0.01 level; \*\* significance at 0.05 level

The distribution of household incomes of the respondents between 'informal sector' and "other sources" under "industrial classification" have been examined which has been shown in Table 6.6. The correlation coefficient was not found significant in either case. It meant, the direction of change of incomes between two sources have not been seen i.e., the direction of change of incomes between two sources in each "industrial classification" was not found significantly different. The average household earning from informal sector of the respondents in each "industrial classification" was found greater than "other sources" of incomes. The largest size among the "industrial classification" was "services" but its average household earning from "informal sector" was found to be the least. The least size among the "Industrial classification" was "production and sales" but its average household earning from "Informal sector" as well as "other sources" were found to be the highest and earning differences between these two sources was found significantly different. Average household earning from "other sources" except "production and sales" was found to be low but more or less equal in different types of "Industrial classification".

Types of employment	n	Av. HH Earning from IS (in NRs)	Av. HH Earning from OS (in NRs)	t-values	Correlation Coefficient ( r )
Self-employed	159	65193.33	13747.17	16.919*	-0.018
Family member employed	148	83892.54	16175.76	15.624*	-0.184**
Family and unpaid other employed	6	85000.00	9500.00	6.920*	0.594
Family, unpaid and wage earner employed	40	139030.00	14800.00	10.738*	-0.038
Self-employed and wage earner employed	36	121111.11	20722.22	10.634*	-0.070
Wage earner employed	29	54931.03	8375.86	9.861*	-0.349

Table 6.7: Distribution of Types of Employment of Household Earnings

\*significance at 0.01 level; \*\* significance at 0.05 level

Distribution of respondents under different "types of employment" between sources of incomes of their household and correlation coefficient between two sources were also examined. "Self-employed" was found to be the largest in size and "family member employed" was the second largest. The correlation coefficient between average household earning from "informal sector" and "other resources" of "family member employed" was found to be significant with negative sign. It meant if we increase labour force and investment in "informal sector" to earn more money incomes, the earning capacity of "other sources" will get reduced due to decrease in investment significantly. The marginal productivity of each source plays significant role in the distribution of earning of the sources. Average household earning from informal sector was found greater than 'other sources' and it was significantly different. Under different "types of employment", the correlation coefficient of average household earnings between two sources were not found to be significant. In each "type of employment", the informal sector earning was found greater than "other sources" of earning of the household and it was significantly

different. It can be concluded that "informal sector" earning was the main source of income in each case. "Self-employed" was found to be the least earning except "wage earner employed" and "self-employed and wage earner employed" though its size was less but it was the highest average household earning among the "employment category". "Wage-earner employed" were found to be the poorest households among the respondents.

location	sex	n	Per capita Earning from IS (in NRs)	Z- Values In IS	Per capita Earning from OS (in NRs)	Correlation Coefficient (r)
U <sub>1</sub>	Male	122	20392.93	2.478**	3064.11	-0.130
	Female	62	25084.06		2924.00	-0.120
$U_2$	Male	61	17532.51	0.129	3015.37	0.245
	Female	21	17181.77		2984.22	-0.021
Rural	Male	118	14476.05	1.011	3423.44	-0.150
	Female	34	16298.48		3788.24	-0.080

Table 6.8: Location and Sex-Wise Distribution of Per Capita Earning

\*significance at 0.01 level; \*\* significance at 0.05 level

Total earning of each household from "informal sector" and "other sources" was divided by the family size, to get average per capita income. Household earning sources i.e. "informal sector" and "other sources" were examined on the basis of per capita earnings. Hence per capita earning is mainly based on family size.

On the basis of per capita earnings, most of the correlation coefficient between IS earning and OS earning were found negative but they were not significant in the degree of direction of amount of earning between two sources. Positive correlation coefficient means, both sources of earning can be increased simultaneously. In each location and sex, per capita earning from informal sector was found to be greater than "other sources" .Per capita household earning from informal sector in U<sub>1</sub> was found to be greater. .Per capita household earning from informal sector in U<sub>1</sub> between sex was significantly different but in other locations it was not significantly different However, per capita earnings from "other sources" in rural area were found to be relatively greater for each sex than in urban locations. Per capita earning from "other sources" in  $U_1$  and  $U_2$  for each sex was not so different.

Mobility	n	Per capita Earning from IS (in NRs)	Per capita Earning from OS (in NRs)	t-values	Correlation Coefficient(r)
Mobile	124	16663.67	3228.68	14.335*	0.008
Semi- mobile	47	17274.29	3631.54	7.503*	0.090
Fixed	247	19666.34	3090.86	19.924*	-0.162**

Table 6.9: Mobility-Wise Distribution of Per Capita Earning

\*significance at 0.01 level; \*\* significance at 0.05 level

Evaluation of per capita earning using the two sources IS and OS about the degree of direction of change and volume of the respondents under "mobility" have been shown in Table 6.9. The correlation coefficients of the respondents of "mobile" and "Semi-mobile" between per capita earning from IS and OS was not found to be significant i.e. almost negligible correlation coefficient seemed to exist between two sources under "mobile" and "semi-mobile". No relation of direction has been observed between the two sources. The correlation coefficient, between per capita earning from IS and OS was found to be significant for "Fixed" mobility type. It is negative. It meant that as per capita earning from informal sector increases, the per capita earning from 'other source' decreases. Larger amount of investment in terms of labour supply, money investments are required in "fixed" activity of informal sector. To increase more productivity and output the larger sources of investment must be required which will be available after reducing some amount the resources from OS but in "mobile" or "semi-mobile" having small size less effect has been seen for OS of income. Earning from OS in "fixed" activity was found to be less compared to "mobile" and "semi-mobile" but per capita earning from IS in "fixed" activity was found to be greater compared to other criteria of "mobility". However, the distribution of the respondents between per capita earning from IS and OS was found significantly different in each type of "mobility"

Industrial classification	n	Per capita Earning from IS (in NRs)	Per capita Earning from OS (in NRs)	t- values	Correlation Coefficient (r)
Services	163	15342.57	3170.47	15.600*	0.005
Purchase and sales	127	20522.61	3239.67	14.964*	-0.022
Production and sales	7	19445.24	4914.29	2.855**	0.031
Purchase, production and sales	121	20598.71	3073.20	14.125*	-0.286*

Table 6.10: Distribution of Industrial Classification of Per Capita Earning

\*significance at 0.01 level; \*\* significance at 0.05 level

The distribution of the respondents according to per capita basis of the sources under "industrial classification" has been shown in Table 6.10. The correlation coefficient between per capita earning of IS and OS under "purchase, production and sales "activity was found to be negative and significantly different. Larger amount of investment in terms of efforts, money, raw materials etc. are required compared to other types of the "industrial classification". So, it is possible when to increase per capita earnings under this type the sources which were used in OS must be cut-off by some amount. Ultimately, the per capita earning from OS will be reduced but per capita earning from IS under "purchase, production and sales" increased. The rate at which the sources are changed is known as the marginal rate of technical substitution and it would be helpful to maximize per capita earning. The correlation coefficient between two sources of per capita earning of the remaining types of "industrial classification" was not found significant. Per capita earning from IS was found greater in "purchase production and sales" among the "types of industrial classification" where per capita earning from OS was least. Similarly, least per capita earning from IS was "services", but it was the largest size. The differences between per capita earning from IS and OS was found significantly different for "production and sales" and for the

each of the remaining "Industrial classification". Per capita earning from OS was found o be the largest in "production and sales".

Types of employment	n	Per capita Earning from IS (in NRs)	Per capita Earning from OS (in NRs)	t- values	Correlation Coefficient (r)
Self-employed	159	15487.38	3316.18	15.321*	0.122
Family member employed	148	18568.04	3265.02	15.092*	-0.254*
Family and unpaid other employed	6	14728.57	1446.43	7.177*	0.208
Family, unpaid and wage earner employed	40	29264.60	2944.46	10.440*	-0.174
Self-employed and wage earner employed	36	25331.98	3911.01	9.898*	-0.328
Wage earner employed	29	12217.24	1956.26	9.236*	-0.371**

Table 6.11: Distribution of Types of Employment of Per Capita Earning

\*significance at 0.01 level; \*\* significance at 0.05 level

The distribution of respondents, under different "types of employment" of the sources of per capita earning was examined which have been shown in Table 6.11. The correlation coefficient between two sources of per capita earning under "family member employed" and "wage earner employed" were found negative and significant. In "family member employed", to increase per capita from IS than some additional amount of investment required then it will not be possible by reducing some amount of investment from OS and ultimately the per capita earnings from OS decreases The sources should be shifted in either alternative sources of earnings to get maximum per capita earning. In most of the cases, the earning capacity from IS was found higher than OS. Some additional investment in terms of labour supply, monetary investment, raw material etc were used in any alternative source due to significant substitution effect both earning and investment must be reduced in other sources of incomes. The nature of the size and investment between "family member employed "and "wage earner employed" was found to be different. The correlation coefficient of per capita earning between sources for the

remaining "types of employment" (self employed, family and unpaid other employed family, unpaid and wage earner employed) was not found significant. Positive correlation coefficient meant both sources of earning can be increased to some extent but it was not significantly different. Either cases of "types of employed" the per capita earning from IS was found significantly different with OS.

#### 6.4 Income and employment Status under Different Categories

Location	Sex	Daily Earning (IS)	Daily investment (IS)	Inv/Ear	Average literacy level (respondent)	Average monthly working days	Average working hours per day
U <sub>1</sub>	Male ,n=122	312.50	653.87	1.69	5.71	25.51	9.76
	Female, n=62	330.56	711.31	1.92	5.68	26.84	10.23
U <sub>2</sub>	Male n=61	216.15	332.35	1.41	5.02	25.80	9.96
	Female n=21	249.76	587.38	2.63	4.86	26.26	10.37
Rural	Male n=118	213.04	384.63	1.82	4.48	24.51	9.02
	Female n=34	244.12	481.74	1.97	4.65	26.61	9.81

Table 6.12: Earning, Investment and Working Situation in Sex andLocation

The largest per capita earnings from IS was in "family unpaid and wage earner employed "and while least one was "wage earner employed". Similarly, largest between per capita from OS was "self-employed and wage earner employed" and least one was "family and unpaid other employed".

Household situation of the respondents in terms of daily earning, investment, ratio of investment to earning working time by location with sex-wise have been shown in Table 6.12. In  $U_1$  and  $U_2$ , females were found with larger amount of investment, larger earning rate, higher working days and hours than males but the literacy level of males were slightly higher than females. In

rural location too, the females were found in better situation according to these indicators than the males but earning and investment rate was found less compared to urban location. Investment rate and return both were found higher for each sex in urban location than rural. Average monthly working days and daily working hours in urban location was found greater than rural location but it was not so different. Thus, it can be inferred that the expansion situation of informal sector activities in urban locations were found greater than rural location for both sexes in Chitwan district.

Mobility	Daily earning	Daily investment	Inv/Ear	Average literacy level	Average monthly working days	Average working hours per day
Mobile n=124	223.44	328.76	1.46	4.33	23.93	9.00
Semi-mobile n=47	213.94	421.72	1.57	4.00	24.89	9.81
Fixed ,n=247	294.45	638.30	2.00	5.74	26.57	10.01

Table 6.13: Earning, Investment and Working Situation under Mobility

The household situation of the respondents under "mobility" in terms of earning, investment, ratio of investment to earning and working time in IS have been shown in Table 6.13. It can be concluded that both household daily earning and investment in informal sector activities in each of "mobile" or "semi-mobile" was found less than "fixed" activity. Most of the informal jobs under "mobile" or "semi-mobile" was found to be small in size and nature than "fixed". Literacy level of the respondents who were engaged in "fixed" was found grater compared to "mobile" or "semi-mobile" was found to be small in size and nature than "fixed". Literacy level of the respondents who were engaged in "fixed" was found grater compared to "mobile" or "semi-mobile". Similarly, due to permanently established under "fixed" activities the working time (both average working days per month and average working hours per day) in informal sector activities was found to be greater compared to others. Majority of the respondents worked under "fixed" activities in IS in Chitwan district. Most of the respondents who had come from other districts of Nepal and

abroad were engaged in either "mobile" or "semi-mobile" due to small investment and small size compared to "fixed" activities.

Industrial classification	Daily earning	Daily investment	Inv/Ear	Average literacy level	Average monthly working days	Average working hours per day
Services ,n=163	220.07	116.34	0.42	4.50	25.47	9.52
Purchase and sales, n=127	257.40	662.67	2.71	5.24	25.85	10.06
Production and sales , n=7	414.29	291.33	0.93	4.14	24.96	8.57
Purchase, production and sales n=121	322.55	934.59	2.72	5.91	25.53	9.57

Table 6.14: Earning, Investment and Working Situation in IndustrialClassification

Under "industrial classification" the larger numbers of respondents were involved in "service" but the daily household earning and daily investment were found to be less compared to other "industrial classification", like "rickshaw pulling work" where "services" have to pay NRs 60.00 per day per rickshaw as investment to 'rickshaw union" but under "purchase and sales" activity like, a fruit seller, purchase 10 kg fruit at the rate of NRs 40.00 at wholesale rate then his/her total investment will be NRs 400.00 and due to higher retail selling price, s/he can earn say NRs. 650.00. Thus, s/he gets net earning NRs.(650.00-400.00)=NRs250.00 per day. Similarly under "purchase, production and sales" take an example of "chicken meat supplier", he purchases, say 20 kg live chicken at the rate of NRs. 80.00; thus his total investment became NRs 1600.00 and he sells meat say 16 kg and sells at NRs 125.00 per kg and he gets NRs 2000.00. Thus earning from selling meat is NRs (2000.00-1600.00)=NRs 400.00. Both rate of return and investment under "purchase, production and sales" was found greater compared to other criterion of "industrial classification" and average literacy level of the

respondents was also found greater. The average working hours (per days) and days (per month) between different categories under "industrial classification" were not so different i.e. each was working more or less same hours and days in average. Due to different nature, size and investment under "industrial classification", the rate of investment and earning from the informal sector of the household of the respondents was found to be different (Table 6.14).

Employment types	Daily earning	Daily investment	Inv/Ear	Average literacy level	Average monthly working days	Average working hours per day
Self-employed, n=159	198.59	259.55	1.24	3.95	24.68	9.28
Family member employed, n=148	259.75	585.31	2.53	5.31	26.26	10.10
Family and unpaid others employed, n=6	250.83	169.84	0.73	6.00	26.08	10.21
Family ,unpaid and wage earner employed, n=40	489.87	1342.37	2.35	7.90	26.60	10.47
Self-employed and wage earner employed, n=36	410.00	980.53	2.08	7.33	25.43	9.22
Wage earner employed, n=29	158.97	-	-	3.93	25.96	9.16

Table 6.15: Earning, Investment and Working Situation in Types ofEmployment

The household situation from informal sector in terms of daily earning and investment working time (days and hours) and literacy status of the respondents was also examined and it has been shown in Table 6.15. The largest size among the "employment types" was "self-employed" but its size

and natures was found small. So all the indicators was found to be less compared to other "types of employment". "Family member employed" was the second largest size among the types where all indicators were found to be greater than "self-employed ". Around three-fourth respondents were engaged under these two "employment types" taken together. "Family, unpaid and wage earner employed" was found to be the largest in both daily earning and daily investment where around 10 percent respondents were involved. Similarly, most of these indicators were found to be higher under "family, unpaid and wage earner employed". Under "wage earner employed" less than 10 percent respondents were engaged.

The literacy level of "wage earner employed" was found to be the least among "employment types", low economics status, less educated (more were illiterate) and not wanted to take any risk from the business were engaged under this criterion.

#### 6.5 Income Earning Functions under Informal Sector Activities

It should be pointed out, however, that interest compounding is an illustrative, not an exclusively, interpretation of the natural exponential function Ae<sup>rt</sup>. Interest compounding merely exemplifies the general process of exponential growth of a sum of money capital overtimes, and we can apply the function equally well to the growth of population ( here, related to supply of labour force), wealth, real capital ( here the investment rate)<sup>101</sup>

How the informal sector earning has been affected by changing labour forces, investment, education etc was also examined using multiple regression technique in log linear form i.e, Cobb-Douglas types of production function. In functional relation, Yi = f (IsL, INV, LitL)

Cobb-Douglas form  $Y_i = A \times ISL_1^{\beta} \times INV_2^{\beta} \times LitL_3^{\beta} \times ui$ ; Where  $\beta_1 + \beta_2 + \beta_3 = 1$ Using natural Log,  $\log_e Y_i = \beta_{0i} + \beta_{1i} \log_e ISL + \beta_{2i} \log_e Inv + \beta_{3i} \log_e LitL + vi$ 

Where  $log_e ui = vi$ ;  $\beta_o = Log_e A$ 

<sup>&</sup>lt;sup>101</sup> Chiang, Alpha C. (1974), 'Fundamental Methods of Mathematical Economics' 2<sup>nd</sup> ed. International Student Edition, McGrawal-Hill Kogakusha Ltd. Tokyo, Japan, p291

Where,  $Y_i$  = Per day household earning from informal sector

ISL= No of supply of labour in informal sector activities.

INV = Per day household investment in informal sector activities.

LITL = Literacy level (No. of schooling) of the respondent.

 $^{\beta}_{0}$ = constant; Log<sub>e</sub>= natural log based on 'e '

<sup>β</sup><sub>1</sub>=coefficient or elasticity of no of supply of labour in informal sector (ISL)

 $\beta_2$ =coefficient or elasticity of investment (NRs) per day (INV)

 $\beta_3$ =coefficient or elasticity of literate level (no of schooling) of the respondent (LITL)

Location	Sex		Es	stimated Co	oefficients		
		βo	β 1	β <sub>2</sub>	β3	F-test	R²
U <sub>1</sub>	Male	3.657	0.259	0.159	0.531	48.805*	0.619
	(n=122)	(17.106)^	(3.217)*	(2.203)^^	(6.721)^		
	Female	2.636	0.139	0.204	0.765	159.110*	0.919
	(n=62)	(17.952)*	(2.724)*	(4.076)*	(13.736)*		
U <sub>2</sub>	Male	3.052	0.055	-0.039	0.872	51.678*	0.783
	(n=61)	(14.422)*	(0.612)	(-0.447)	(8.632)*		
	Female	1.856	-0.081	0.185	0.910	52.746*	0.924
	(n=21)	(5.747)*	(-0.864)	(2.167)**	(9.097)*		
Rural	Male	3.164	0.189	0.008	0.816	219.832*	0.888
	(n=118)	(32.039)*	(4.046)*	(0.185)	(17.734)*		
	Female	2.625	0.068	0.199	0.753	29.493*	0.787
	(n=34)	(5.876)*	(0.654)	(1.786)	(6.360)*		
All		3.107	0.129	0.097	0.758	373.074*	0.780
	(N=418)	(38.270)*	(4.054)*	(3.254)*	(23.039)*		

Table 6.16: Estimation of Income Earning Functions byLocations and Sex

\*significance at 0.01 level; \*\* significance at 0.05 level; figures within parentheses are t-values

The nature of explanatory variables was assumed to be changing with geometrical series. So, in this relation natural log form of regression analyses

has been used. In some of the informal sector activities the earning and investment may not be obtained daily. So, in this case the average values have been found using simple average method. Under this condition the estimated coefficients have been computed under different classifications separately.

Separate household earning functions of the informal sector under different location with sex-wise were derived (Table 6.16). The analysis and interpretation of the substitution and complementary effects on sex-wise household informal sector earning of the respondents in different locations were based on the estimated coefficients of the derived equations. These seven estimated informal sector functions were significant with high R<sup>2</sup> values. The estimated coefficients of the informal sector earning function of U<sub>1</sub>- male and combined (locations and sex) of all function resembled the same trends and signs. The signs of coefficients of the number of employed in informal sector, per day investment, and literacy level of the respondents, of U<sub>1</sub>-male and combined of all function were positive and significant. In  $U_1$ -female earning function, each coefficient was found significant. In U<sub>2</sub>-male earning function, LITL was significant but ISL and INV were not significant and the sign of ISL was negative. In U<sub>2</sub>-female earning function, INV and LITL were significant but ISL was found with negative values and it was not significant. In rural-male earning function, INV was not significant but the other coefficients were found significant. Similarly, for rural-female earning function, ISL and INV were not found significant but the coefficient of LITL was found significant.

A 100 percent increment in each explanatory variable (ISL, INV and LITL) in  $U_2$ -male earning function caused to increase nearly by 6 percent, decreased by 4 percent and increased by 87 percent respectively. Here, INV became substitution effect with ISL and LITL but it was seemed not a significant effect. Similarly, the coefficient of the ISL in  $U_2$ -female earning function was negative but it was not significant and other two explanatory variables were found to be significant factors in the function. In rural-male earning function all the

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explanatory variables were found to be positive signs but INV was not found significant. it showed that the IS in rural for males were labour-intensive technique with insignificant capital was found but for females in the location only LITL was found significant for the determination of IS earning function though the value of INV was seemed high but not reached to the required significant level. A 100 percent increment in each explanatory variable (ISL, INV and LITL) under rural-female earning function caused to increase nearly 7 percent, 20 percent and 75 percent respectively In the earning income function.

It can be concluded that in urban and developed areas all the explanatory variables were found to be significant due to larger size of IS but in less developed and rural areas due to small size, ISL and INV were not found to be significant but only LITL was found significant. However, males were involved in most of labour oriented types of occupations for employment purpose but females were found to be involved in capital intensive types of occupations basically for income earning purpose and for employment as the secondary purpose. Thus, the amount of investment for earning function for females were found relatively elastic than males but supplies of labour for males were found relatively elastic than females. Similarly, literacy level was less effective for females to increase daily household earning from IS.

Mobility		Coefficients	Coefficients			
	βo	β 1	β 2	β 3	F-test	R²
Mobile (n=124)	3.265 (21.525)*	0.011 (0.163)	0.047 (0.755)	0.853 (12.762)*	91.246*	0.778
Semi- mobile (n=47)	3.325 (30.726)*	0.135 (2.114)**	0.022 (0.730)	0.865 (13.712)*	140.488*	0.934
Fixed (n=247)	2.934 (26.329)*	0.192 (4.822)*	0.133 (3.646)*	0.703 (16.956)*	229.457*	0.776

Table 6.17: Estimation of Income Earning Functions by Mobility

\*significance at 0.01 level; \*\* significance at 0.05 level; figures within parentheses are t-values

The household income earning function from informal sector of the respondents in different types of "mobility" (mobile, Semi-mobile and fixed) were estimated in Cobb Douglas form (Table 6.17). Under these functions the sample size were 124, 47 and 247 respectively for the "mobile", "semi – mobile" and " fixed" "activities. All models were significant having high R<sup>2</sup>. In household daily informal sector earning functions supply of labour, per day investment and literacy level of the respondents were as explanatory variables or independent variables.

The coefficients on number of supply of labour in informal sector (ISL), per day investment rate (INV), and literacy level of the respondent (LITL) under "mobile" daily household income earning function were positive in signs and the coefficients on LITL was found significant which indicated that a 100 percent increment in ISL, INV, and LITL caused to increase nearly 1 percent 5 percent and 85 percent daily income earning opportunities of IS respectively. In this IS daily household earning function of the respondents who were involved in "mobile", most of them were single person and more or less fixed investment for all due to the nature of small business unit of the respondent. Thus, who are more educated can earn more amount.

Of the informal sector earning function for "semi-mobile" respondents in equation showed that the coefficient of ISL and LITL were found significant but the coefficient at the amount of investment per day was not found significantly different. The fundamental nature of the function was not found different with "mobile" but majority of them were found with the involvement of family members. So, due to the smallness of investment the coefficient of INV became insignificant in the informal sector earning income function under "Semi- mobile". It can be concluded by increasing number of labour and respondents who was more capable (more educated or literacy level is high) can earn more amount. A 100 percent increment in ISL, INV and LITL caused to increase nearly 14 percent, 2 percent and 87 percent respectively in the informal sector earning function under "semi-mobile".

The estimated coefficients in the informal sector earning function of the respondents who were involved in "fixed activities" showed the same sign .Majority of the respondents (59 percent) were engaged under "fixed" activities. The coefficients on ISL, INV and LITL were all found highly significant. The positive sign of each coefficient of the explanatory variable explained the complementary effect of the respondents under "fixed activities". A 100 percent increase in each explanatory variable caused to nearly 19.2 percent 13.3 percent and 70.3 percent possibilities of increase in ISL, INV, and LITL respectively of the respondents who were involved in informal sector earning function under "fixed activities". In comparison of these three explanatory variables, the literacy level of the respondents showed more dominated factor in informal sector earning. The values of coefficients or elasticities of ISL, INV, LITL under "fixed" informal sector earning function were 0.192, 0.133 and 0.703 respectively. Here  ${}^{\beta}_{1} + {}^{\beta}_{2} + {}^{\beta}_{3} =$ 1.028. Thus, it can be inferred that in either informal sector earning functions, the most dominating factor was the literacy level of the respondents.

	(	Classifica	ation		
ndustrial	Estimate	d Coeffici	ents		
lassification					

Table 6.18: Estimation of Income Earning Functions under Industrial

Industrial	Estimated Coefficients							
classification	β 0	β 1	β 2	β <sub>3</sub>	F-test	R²		
Services (n=163)	3.032 (21.115)*	0.014 (0.229)	-0.004 (-0.080)	0.882 (15.049)*	130.923*	0.791		
Purchase and sales (n=127)	3.179 (23.996)*	0.090 (1.910)	0.081 (1.680)	0.827 (16.571)*	145.435*	0.815		
Purchase, production and sales (n=121)	2.828 (13.695)*	0.216 (3.635)*	0.204 (3.480)*	0.609 (10.078)*	108.731*	0.765		

\*significance at 0.01 level; figures within parentheses are t-values

IS earning function of the respondents under different types of "Industrial classification" (services; purchase and sales; purchase, production and sales) were estimated (Table 6.18).

All models were estimated to be highly significant. The coefficients on ISL and LITL of informal sector earning function of "services" were estimated to be related positively, but for INV it was negative. This indicated that a 100 percent increment in ISL and LITL caused to increase nearly 1 percent and 88 percent but for INV decreased by 0.4 percent in the informal sector earning function. In "services", number of supply of labour to the informal sector and literacy level of the respondents were found to be complementary but with daily investment it was found that substitution effect was having very small effect i.e. insignificant effect. The IS income earning function situation under "services" was mainly based on literacy level of the respondents. S/he who is more educated can earn more from informal sector, i.e. significantly positive relation was found between informal sector earning and literacy level under "services".

Of the informal sector earning function of the respondents who were engaged in "purchase and sales", the coefficients of the equation showed that all were related positively. In this function too, the coefficient of LITL was found significant. The coefficients on ISL and INV were inelastic having nearly 0.1 of each but the coefficient of LITL was nearly 0.8. If a 100 percent increment in each ILS, INV and LITL the possibilities under IS earning function of "purchase and sales" caused to increase nearly 9 percent, 8 percent and 83 percent respectively. "Purchase and sales" activities were mostly dominated by single person with small amount of investment where the high informal sector earning was mostly based on literacy level of the respondents. All the explanatory variables were found complementary effect to the informal sector earning. 30 percent respondents were involved under "purchase and sales" activity.

The estimated coefficients in informal sector earning function for the respondents who were engaged under "purchase, production and sales" showed the same signs. The coefficients on ISL, INV and LITL under informal sector earning function of "purchase, production and sales" each was found significant. The positive signs of these three explanatory variables (ISL, INV

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and LITL) explained the complementary effect of IS earning function of "purchase, production and sales". A 100 percent increment in each explanatory variable (ISL, INV and LITL) caused to increase nearly 22 percent, 20 percent and 61 percent respectively. This equation showed that "purchase, production and sales" activities were found with larger amount of investment compared to others industrial category. All the three explanatory variables (ISL, INV and LITL) were found significant in the determination of the household earning through informal sector. The values of elasticities showed that mostly dominated role was played by literacy level of the respondents i.e., better management aspect. Around 30 percent respondents were involved under this type.

Types of		Estimated Coefficients							
employment	β <sub>0</sub>	β 1	β 2	β 3	F-test	R²			
Self-employed (n=159)	3.116 (23.440)*	0.047 (0.875)	0.063 (1.108)	0.806 (13.127)*	101.906*	0.739			
Family member employed (n=148)	2.847 (22.779)*	0.142 (3.562)*	0.050 (1.375)	0.833 (20.181)*	229.684*	0.847			
Family, unpaid and wage earner employed (n=40)	3.502 (9.9590*	0.431 (3.509)*	0.522 (4.575)*	0.130 (0.989)	113.926*	0.632			
Self-employed and wage earner employed (n=36)	2.823 (13.138)*	0.226 (3.072)*	0.273 (3.793)*	0.699 (8.944)*	64.164*	0.873			

Table 6.19: Estimation of Income Earning Functions underTypes of Employment

\*significance at 0.01 level; figures within parentheses are t-values

The informal sector earning functions under different "types of employment" (self- employed; family member employed; family unpaid and wage earner employed; and self-employed and wage earner employed) were estimated in Cobb Douglas form (Table 6.19). Among the "types of employment", "self employed" and "family member employed" were the two dominated activities where around 75 percent respondents were involved under informal sector activities in Chitwan district.

All the models were found significant. All the coefficients under" self employed" informal sector earning function were positive signs, and the coefficients on LITL was significant but the coefficients on ISL and INV were insignificant. Thus, income earning function under "self-employed", literacy level of the respondents played a significant role. Due to small size of the supply of labour and amount of investment were not found significant in the determination of household earning from IS. A 100 percent increment in ISL, INV and LITL caused to increase nearly 5 percent, 6 percents and 81 percent respectively to the informal sector earning function under "self-employed". The sign of the coefficients showed that these explanatory variables were having complementary effect. Thus, supply of labour and investment in the function was inelastic to raise the informal sector earning under "self-employed" where around two-fifth respondents were involved. The informal sector earning function under "family member employed" the equation showed that all the coefficients under explanatory variables estimated having positive signs. The coefficients on constant term, ISL, and LITL each of these were significant. We can conclude that supply of labour and literacy level of the respondent played significant role with complementary effect to increase earning capacity in informal sector under" family member employed". It can be inferred that "family member employed" activities are based on labour intensive with good management technology where investment played insignificant role to increase earning from IS. A 100 per cent increment in each explanatory variables (ISL, INV, and LITL) caused to increase nearly, 14 percent, 5 percent and 82 percent to the informal sector earning function 'ceteris paribus'.

The estimated coefficients in the informal sector earning function of "family, unpaid and wage earned employed" showed the positive signs. It showed that explanatory variables explained complementary effect to the informal sector earning. The coefficient on ISL and INV in each was significant and the coefficient on LITL under this function was found insignificant. Among the significant explanatory variables INV played dominant role in the determination of household earning from IS. A 100 percent increment in

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explanatory variables (ISL, INV and LITL) caused to increase nearly 43 percent, 53 percent and 13 percent in the earning function. Thus, both supply of labour and investment played significant role to raise the earning capacity of the household from informal sector.

However, in the informal sector earning function of "self employed and wage earner employed "of the respondents, the estimated coefficients in these explanatory variables (constant term, ISL, INV and LITL) showed that each was statistically significant. The positive sings of these three explanatory variables explained the complementary effect in the informal sector earning function of "self-employed and wage earner employed". Due to larger size in both supply of labour and investment all the three explanatory variables were found to be significant to determine the household informal sector earnings. Due to 100 percent increment in each ISL, INV and LITL would cause an increment of 23 percent, 27 percent and 70 percent to the household informal sector earning respectively.

In most of the functions, the literacy level of the respondents was found with sizeable role in the determination of household earning capacity from informal sector. Higher the literacy level, higher will be the informal sector earning. To explain the informal sector earning due to different size, investment and management under different "types of employment" was found to be different. Larger the size, larger will be the labour supply and investment. If the size of informal sector activity becomes small, investment and labour supply become less effective and literacy level of the respondent plays significant role in the determination of household income from informal sector.

## 6.6 Impact of Informal Sector on Income Status

Economic status of the respondents has been computed on the basis of locations and sex. How the informal sector earning has been affected to their economic status has also been examined by including or excluding the informal sector earning to the household earning of the respondents. Here, the impact of informal sector on income status has been evaluated on the basis of per capita income of the respondents who were engaged in various informal sector activities in Chitwan district.

The income status of the respondents in different locations according to per capita basis has been shown in Table 6.20. The size of poor in U<sub>1</sub> was found to be the lowest while in the others three categories, the distribution respondents was around one – third in each. Around half (42.7 percent) were under low income group in U<sub>2</sub> and one – fifth (19.5 percent) were high income level. In rural area around half (48.7 percent) of the respondents were low-earning and around one – sixth were poor.

Location		Per capita inc	Total	χ²		
	<10000 Poor	10000- 20000 Low	20000- 30000 Middle	30000> High		values
U₁ U₂ Rural	13 (7.2) 14 (17.1) 27 (17.8)	63 (34.2) 35 (42.7) 74 (48.7)	54 (29.3) 17 (20.7) 33 (21.7)	54 (29.3) 16 (19.5) 18 (11.8)	184 (100.0) 82 (100.0) 152 (100.0)	27.905*
Total	54(12.9)	172(41.1)	104(24.9)	88(21.1)	418 (100.0)	

Table 6.20: Distribution of Respondents by Location and Income Status

\*significance at 0.01 level; figures within parentheses are percentage

The earning situation in rural location was the lowest. Thus we can conclude that the income opportunities in  $U_1$  was found to be better than in other locations in various informal sector activities. The differences between per capita earnings in different locations were found significantly different. Around three – fifth (58.6 percent) respondents of  $U_1$  were either middle or high income group. The largest size of  $U_2$  i.e. 42.7 percent were low income group. In rural areas 17.8 percent were poor and around half (48.7 percent) were in low income. Thus, two-third (66.5 percent) rural respondents only 11.8 percent were in high income group.

						(Percent)
Location	Р	er capita inc	Total	χ²		
	< 10000 Poor	10000- 20000 Low	20000- 30000 Middle	30000> High		values
Male Female	43(14.3) 11(9.4)	129(42.9) 43 (36.8)	73(24.3) 31(26.5)	56 (18.6) 32(27.4)	301 (100.0) 117 (100.0)	5.550
Total	54(12.9)	172(41.1)	104(24.9)	88(21.1)	418 (100.0)	

Table 6.21: Distribution of Respondents by Sex and Economic Status

Figures within parentheses are percentage

Sex-wise economic status of the respondent has been depicted in Table-6.21. Among the females, 9.4 percent were poor, while 14.3 percent of males were poor. Similarly, 42.9 percent of males and 36.8 percent of females were in low income earning group. 27.4 percent females and 18.6 percent males were in high income group. Thus, high percent of male respondents and low percent of female respondents were earning less than NRs20, 000 (or they were either poor or low income group) adding these two groups (poor and low) the male respondents were more than half (54.5 percent) while for female respondents it was 41 percent, vis-à-vis high percent of female respondents (59 percent i.e., adding two top income groups) and low percent of male respondents (45.5 percent) were found either in middle or high income group. In this distribution the females were in better position. However, the distribution of economic status between sexes was not found significantly different. It can be concluded that the income earning opportunities between males and females were more, less or same but the earning status of females were found higher than the males though it was not statistically different.

				(percent)	
Per head capita	IS earning	Included	IS earning Excluded		
(NR s)	n	%	Ν	%	
Poor (Below10000)	54	12.9	394	94.3	
Low (10000-20000)	172	41.1	22	5.3	
Middle (20000-30000)	104	24.9	1	0.2	
High (above 30000)	88	21.1	1	0.2	
All income group	418	100.0	418	100.0	

 Table 6.22: Comparison of Economic Status of Informal Sector Earning

How the income status of the respondents would be changed by including and excluding the informal sector earning to their household income has been shown in Table 6.22. One-eighth (12.9 percent) respondents were under poor category; if we exclude the informal sector earning to their household income the size of poor would be raised to more than nine-tenth (94.3 percent). Similarly, just less than one-fourth (21.1 percent) respondents were in high level of earning after including the informal sector earning to the household income and if it was excluded from their total household income the percent of high level of earning would be decreased and reached approximate to zero (0.2 percent). Thus, it can be derived that the other alternative sources of the respondents who were involved in the informal sector activities were of very poor status. It shows that most of the respondents of the informal sector were from poor families. If the informal sector expanded, it helped directly or indirectly to poverty alleviation efforts of the Nepal Government. Thus we endorse that to solve the unemployment problems and to raise the level of income, the informal sector plays a significant role in Chitwan district.

## 6.7 Working Time Status in Informal Sector Activities

It was found that the working times (days per month, hours per day) in informal sector are high compared to formal sector. The longer working hours (in terms of hours and days) but less earning capacity are the indicators of poverty. The present study is trying to analyze the working time with respect to different variables of informal sector activities in Chitwan District. It would
be pertinent to note here that the working time in the informal sector activities were highly affected in Chitwan District as well as other areas of Nepal by political reasons. The conflict between government and Maoists had reached at the peak point and all the business activities in both formal as well as informal sector were in slack situation when the data were collected. However, the various conclusions of various variables with respect to time were found to hold correct and relevant for policy formulation.

Working situation of the respondents in different seasons was compared between the two sexes (males and females) (Table 6.23). Available data showed that average monthly working days in each season of females were found to be greater than males and the difference was significant statistically. Similarly, average working hours per day of females were found to be greater than males for each season of a year. The average mean difference in summer in average working hours between males and females was not found to be significant statistically but in other seasons the difference was statistically significant too. Thus, both working days per month and working hours per day of females were found to be greater than males. On the other side, the family support to the respondents who were involved in different informal sector activities was also estimated in terms of working hours per day in different seasons between sex showed that the higher support in terms of working hours obtained by females were found to be greater in each season as compared to males. In summer, the mean difference of working hours from family members between males and females was not found significantly different but in other seasons it was found significantly different.

Seasons	Female	<b>Male</b>	Differences in mean	Z-values							
Average Monthly Working Days in											
Summer	27.45	26.35	1.10	3.004*							
Rainy	25.58	23.90	1.68	2.384**							
Autumn	26.79	25.54	1.25	2.674*							
Winter	26.85	24.92	1.93	2.925*							
Average daily Working hours in											
Summer	10.34	9.96	0.38	1.451							
Rainy	10.11	9.24	0.87	2.209**							
Autumn	10.23	9.68	0.55	1.970**							
Winter	9.85	9.16	0.69	2.152**							
	Average daily Wo	orking hours by f	amily member ir	ı							
Summer	5.73	4.99	0.74	1.686							
Rainy	5.78	4.78	1.00	2.202**							
Autumn	5.72	5.60	0.12	0.268							
Winter	5.82	4.75	1.07	2.818*							
n	83	101	_	_							

Table 6.23: Sex-Wise	e Distribution of	f Seasonal	<b>Working Status</b>
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\*significance at 0.01 level; \*\* significance at 0.05 level

Thus, we can infer that the working days, hours and family support by higher working hours from family members for females were found greater which help to earn more and it gives incentive for females by larger supply of labour in different informal sector activities but the participation rate of females was found less due to other political, physical, cultural, social etc. factors.

Working situation of the respondents between different locations {U<sub>1</sub> and U<sub>2</sub>; urban (both U<sub>1</sub> and U<sub>2</sub>) and rural} were estimated (Table 6.24). Average monthly working days in summer and rainy seasons were greater in U<sub>2</sub> than U<sub>1</sub>, and in autumn and winter it was greater in U<sub>1</sub> than U<sub>2</sub> but in either cases it was not significantly different. Average monthly working days in urban location was greater than rural location and it was significantly different but in winter it was not significantly different. The respondents who were involved in

different informal sector activities for them the winter was slack season due to high engagement in agricultural related activities. The working hours per day by the respondents in each season between two urban locations were not found significantly different but the working hours per day in urban location was greater than rural location and it was significantly different except in winter.

Seasons		Loca	Z-va	lues							
	<b>U</b> <sub>1</sub>	U <sub>2</sub>	Urban	Rural	Zu1u2	Zur					
	(n=184)	(n=82)	(n=266)	(n=152)							
Average Monthly Working Days in											
Summer	27.15	27.22	27.17	25.77	0.217	4.131*					
Rainy	24.67	25.71	24.99	23.30	1.338	2.574**					
Autumn	26.47	25.61	26.21	25.34	1.795	2.409**					
Winter	25.55	25.12	25.42	25.53	0.485	0.177					
		Average d	laily Workin	g hours in							
Summer	10.40	10.60	10.46	9.39	0.648	4.466*					
Rainy	9.66	10.20	9.82	8.89	1.057	2.539**					
Autumn	10.16	10.16	10.16	9.27	0.000	3.447*					
Winter	9.48	9.29	9.42	9.23	0.458	0.631					
	Average	dallying Wo	rking hours	by family m	ember in						
Summer	6.25	4.77	5.87	4.65	1.937	2.817*					
Rainy	6.00	4.96	5.74	4.61	1.400	2.501**					
Autumn	6.12	4.85	5.79	4.74	1.680	2.365**					
Winter	5.96	4.65	5.63	4.74	1.737	2.003**					
n	76	26	102	82	-	-					

Table 6.24: Location-Wise Distribution of Seasonal Working Status

\*significance at 0.01 level; \*\* significance at 0.05 level

The average working hours from family members in different informal sector activities between two urban locations ( $U_1$  and  $U_2$ ); rural and urban location of the respondents were estimated. The estimation showed that it was not significantly different between two urban locations but it was significantly different between two locations in each season.

The average working hours from family members in urban locations was found to be greater than rural location. It can be concluded that working situation between two urban location was found more or less same but it was greater in urban than rural. So, the informal sector activities are more expanding in terms of working times higher average working days in each month in each season, higher average working hours per day in each month in each season, higher support by higher working hours of family member of the respondents, increasing in the number of family member in informal sector activities in urban areas (U<sub>1</sub>, U<sub>2</sub>) than rural location in Chitwan district.

Seasonality effect	Types of n employment		Gender		Development areas		
			Male	Female	Rural	Urban	Total
	Unemployed	5	60.00	40.00	0.00	100.00	1.20
	Other income earning work	29	20.70	79.30	44.80	55.20	6.94
	Household work	39	10.30	89.70	53.80	46.20	9.33
	Total	73	17.81	82.19	46.57	53.43	17.46
Seasonality unaffected	Always work	345	30.14	69.86	34.20	65.80	82.54

Table 6.25: Seasonality Effect in Work by Sex and Location (percent)

The question was asked to each respondent that what you did in off-season if any in your business. Among 418 respondents, 5 were completely unemployed, 29 were employed in other income earning job, 39 were engaged in household work, and remaining 345 were unaffected significantly in off-season. Around one-sixth (17.46 percent) of the total respondents were affected by off-season<sup>-</sup> Though the size of unemployed was very small, however, three-fifth (60 percent) of male respondents and two-fifth (40 percent) female respondents were unemployed in off-season, and all unemployed were from urban. Just greater than four-fifth (82.54 percent) of the total respondents were at the same informal activity over the year (all seasons of a year). Among those respondents who were in other income earning work, more than four-fifth (79.3 percent) were females and for development areas more than half (53.43 percent) were in urban areas. Among those respondents who were at household work due to off-season in working informal job, around nine-tenth (89.7 percent) of them were females and more than half (53.8 percent) were in rural areas (Table 6.25).

### Conclusion

Conclusion of this chapter was based on income earning situation of the respondents and employment situation of them in terms of sex, locations, castes, mobility, occupations etc. Under family background household size, household dependency ratio, temporary dependency ratio, per head household employed, average household literacy level and household property of the respondents were examined in different locations and sex wise. Both, literacy level and household literacy level, were found significantly different between rural and urban locations but they were not significantly different between two urban locations. Similarly dependency ratio between two rural and urban locations was found significantly different but it was not significantly different between two urban locations. Average literacy level of the respondents between males and females was not found significantly different but both the average household of literacy level and dependency ratio between males and females were found to be significantly different. Therefore, it can be derived that average household dependency ratio in less developed areas and for males was found greater. Average household literacy level and household property for females was greater. Similarly, per head family employed ratio (number of employed to family size) for females was found greater than males in rural area. It meant the females who were employed in informal sector per head family employed ratio were found greater than males in each location.

It can be further inferred that household earning from informal sector and other sources in terms of both household and per capita basis was found significantly different in either types of classifications. In all cases informal sector earning was found greater than other sources of earning. Similarly, correlation coefficient between two types of earnings in most of the cases was

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found not significant but in few cases it was found significantly different with negative sign. It implies that to increase earning either from household income basis or per capita basis, from both sources are not possible simultaneously. So, if we increase the investment in terms of labour supply, money investments etc, in either source, it will be available by reducing some sources form other income earning sources. The result showed that income increasing from one source and some amount of income decreases from other sources. This types of conclusion has been found from "family member employed", "wage earner employed", "purchase, production and sales" and "fixed" activities. In these types, the labour supply, amount of money investment were found to be relatively elastic to some extent.

Daily household earning, daily household investment, average monthly working days, average working hours per day and average literacy level of the respondents are related indicators in different informal sector classification which have been shown. From these, it can be derived that females and developed areas were found better in terms of earning and investment. Similarly, in "fixed" activity than "mobile" or "Semi-mobile"; "purchase, production and sales" under "Indusial classification"; "family, unpaid and wage earner employed" in "employment types", were found to be with relatively higher earnings with high investment. Thus, it can be concluded that single person employed activity as "service activity" and single person trading activity where supply of labour and investment are relatively inelastic with lower earnings. So, the earning capacity under these informal sector activities were found less compared to larger size in terms of supply of labour and investment.

To show the relation between employment and earning in informal sector, some models, using appropriate statistical tools have been fitted and it can be concluded that single person job, "services sector", "mobile" activities where informal sector activity are small by nature in most of these cases the literacy level of the respondents was found significantly different. similarly, the informal sector activities where supply of labour and money investment are

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elastic like, "family member employed with paid or unpaid wage earner employed", "fixed" activity, "purchase, production and sales" etc where in most of cases all the explanatory variables i.e. supply of labour, money investment and literacy level of the respondents in informal sector earning functions were found significant. Therefore, we can infer that through sustained schooling, the prospect of employment and earning even in the informal sector can be better with higher earnings possibilities.

If we excluded the informal sector earning form the household earning, the size of poor among the respondents would be 94 percent and if we include the informal sector earning to the household earning the size of the poor was found to be 13 percent. On the other hand, the size of high income earning group were 21 percent, If we deducted the informal sector earning from the total household earning its size would get reduced to approximately zero (0.2 percent). The result shows that there was significant role of informal sector in household earning function.

The working times in terms of hours and days in urban areas was found to be higher than the rural location with meaningfully differences shows that the informal sector activities are more in urban location than in rural locations. Those females who were involved in different informal sector activities, their earnings as well as working times in terms of hours and days was found to be greater than males.

Most of the business activities were affected by changing seasons. In urban locations, the females were feeling less affected during changing seasons. Some occupations were found to be affected during changing seasons and most of them were either "service sector" or "mobile" activities.

In the following chapter we shall explain the castes and occupation and financial activities towards the various informal sector activities in detail.

# CHAPTER-VII OCCUPATIONAL EFFECT OF EMPLOYMENT IN INFORMAL SECTOR

This chapter has explained about occupational effect to the informal sector activities. Nature of employment and its return to different castes and occupations of the total respondents have also been analyzed. The income earning functions under informal sector activities with respect to different castes and occupations using some explanatory variables have been derived and tried to be explained briefly. How the income and employment are related in different informal sector activities has been explained. Moreover, a brief analysis of financial activities in informal sector has also been attempted.

#### 7.1 Basic Features of the Respondents under Castes and Occupations:

Choice of location, occupation, and other related variables are the product of basic features of the respondents in informal sector. How the various variables were affected in this respect was also examined.

Sex	Sample size	Av. hh size	Hh Dependency ratio (%)	No of un emp/no of emp.	No of emp/ fam. Size	Av. hh lit level	hh. property (in million) NRs
Brahman/chhetri	174	4.58	37.99	0.5196	0.4382	4.8187	0.232
Vaisya	140	4.71	39.72	0.5774	0.4213	3.3113	0.206
Dalit	54	5.15	42.13	0.5809	0.3886	2.6093	0.187
Muslim	24	4.88	40.19	0.6667	0.3774	2.4746	0.196
Others	26	5.35	39.04	0.6474	0.3917	2.2538	0.219
All	418	4.76	39.30	0.5633	0.4197	3.7343	0.215

Table 7.1: Caste-Wise Distribution	of Household Indicators
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In less developed society, caste wise presentation as a family background was found to have greater determining role but developed economies it will be meaningless. Thus, in this study to analyze the informal sector activities the household backgrounds are shown according to caste factor. Among the castes, the household size was found to be smallest in Brahman/Chhetri and the largest size was from 'Others' castes. Sample size showed that the informal sector activity was dominated by Brahman/ Chhetri. Household dependency ratio was found to be greater in Dalit and it was found to be the least for Brahman/Chhetri. Temporary burden (number of unemployed/ number of employed in a household) was found to be the highest in Muslim and it was found to be the lowest for Brahman/ Chhetri. Here the ratio of number of unemployed to number of employed in a household shows temporary burden if some unemployed go to the work soon. It will not remain for longer time, so it is by nature a temporary or phenomenon. Per family employed ratio of Brahman/Chhetri was found to be greater and followed by Vaisya and it was found to be the lowest for Muslim. Similarly, average household literacy level and average household property of Brahman /Chhetri was found to be greater among of the castes .The lowest average household property was with the Dalit. And the lowest average household literacy level was from "Others" castes. It can be concluded that the indicators for family background showed that Brahman/ Chhetri enjoyed better position among the castes.

The family background of the respondents, who were under different occupations have been shown in Table 7.2.. Average household size, average household dependency ratio, temporary burden to the household in ratio of number of unemployed to number of employed, per head household employed in the ratio of number of employed to family size, average household literacy level and average household property were assumed as the indicators of family background of the study. The three largest average household size among the occupations were "others"," hair dressing work"" and "small tea and coffee shop" and the smallest occupations were. "rickshaw

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pulling work", "bread, cake loaf etc. frying food selling activity", "small retail shop" and "fruit selling activity" household dependency ratio was found to be greater in "other" and while smallest one was "ready made cloth selling work".

Occupations	Sample size	Av. hh size	hh Dependency ratio (%)	No of un emp/no of emp.	No of emp/ fam. Size	Av. hh lit level	hh. property (in million) NRs
Rickshaw puller	30	4.23	42.05	0.4833	0.4234	2.9617	0.177
Cycle repair and pumping work	20	4.80	42.25	0.4167	0.4117	4.0575	0.195
Tailoring	30	4.83	38.87	0.4111	0.4617	3.7573	0.203
small tea shop	20	5.10	30.92	0.4583	0.5008	4.0350	0.170
Bread ,cake, loaf etc. frying food	20	4.40	40.19	0.6667	0.3780	2.4025	0.170
carpenter or furniture making work	20	5.00	52.33	0.5250	0.3299	2.0500	0.270
Meat Shop	30	4.77	42.52	0.5833	0.3898	4.0567	0.240
Small retail shop	30	4.47	37.79	0.3944	0.4760	4.7810	0.200
unregistered footpath based hotel and restaurant	20	4.80	34.93	0.3917	0.4843	5.1940	0.320
Chuda,Pote etc. non-food consumption goods	20	4.85	39.55	0.6583	0.3952	3.6110	0.225
Others	18	5.44	47.80	0.8704	0.2933	3.2722	0.178
Fruit seller	30	4.47	35.05	0.5778	0.4447	5.2917	0.270
Vegetable seller	30	4.53	33.63	0.4278	0.5166	4.1410	0.233
Ready made cloth seller	20	4.55	26.64	0.5833	0.4901	4.5375	0.225
Ice-cream and fruit liquid seller	20	5.00	44.00	0.5083	0.3925	2.7300	0.200
Radio-TV, watch repair work	20	4.60	49.02	0.8917	0.2796	4.3375	0.235
Hair dresser	20	5.50	37.03	0.8708	0.3612	2.8400	0.200
Shoe repair and polish	20	5.05	36.57	0.7017	0.4171	1.8225	0.135

Table 7.2: Occupation-Wise Distribution of Household Indicators

Temporary unemployed burden was highest in "radio, T.V., watch etc. electronic work activity" and lowest was found in "unregistered foot path hotel and restaurant". Similarly, per head household employed ratio was highest in "small tea and coffee shop" where the lowest was" radio, T.V., watch, etc electronic repair work activity". Average household literacy level was found to be greater in "fruit selling activities" and lowest was "shoe repair and polish work". Similarly, the largest household property were in "unregistered footpath hotel and restaurant "and lowest was in "shoe repair and polish work".

7.2 Income Status in Different Castes and Occupations

Castes	n	Av. HH Earning from IS (in NRs)	Av. HH Earning from OS (in NRs)	t-values	Correlation Coefficient ( r )
Brahman/chhetri	174	92245.06	14573.01	19.389*	-0.073
Vaisya	140	78688.69	15680.39	13.955*	-0.065
Dalit	54	69912.59	16701.93	8.102*	-0.026
Muslim	24	73550.00	10052.08	6.127*	-0.170
Others	26	84557.69	13215.38	5.476*	0.266
all	418	83268.03	14874.91	26.01*	-0.04

Table 7.3: Caste-Wise Distribution of Household Earning

\*significance at 0.01 level

Caste-wise average household earning from IS and OS of the respondents were examined (Table 7.3). The correlation coefficient between two sources for each caste except- "other" was found negative but it was not significantly different in either case. It meant we can say nothing about the change of direction between two sources of household incomes for the castes. The household income from IS for each caste was found to be greater than OS and it was found to be significantly different. Average household incomes from IS of Brahman/Chhetri was found to be greater among the castes and second largest was from "other ". Other alternative sources each of "Dalit" and "Vaisya" was found to be greater than Brahman/Chhetri. Brahman/Chhetri seemed to be on larger role in informal sector earning in Chitwan district. No

significant difference between castes have been found on the basis of the correlation coefficient and t-values between the two sources of household earning.

Occupation	n	Av. HH Earning from IS (in NRs)	Av. HH Earning from OS (in NRs)	t-values	Correlation Coefficient (r)
Rickshaw puller	30	59906.67	14793.33	9.081*	-0.068
Cycle repair and pumping work	20	74190.00	14485.00	4.748*	-0.343
Tailoring	30	78020.00	11173.33	6.988*	0.041
small tea shop	20	59799.00	23390.00	5.131*	-0.387
Bread ,cake, loaf etc. frying food	20	62100.00	7940.00	7.792*	-0.076
carpenter or furniture making work	20	112610.00	19560.00	5.309*	-0.418
Meat Shop	30	99148.00	16593.33	5.934*	-0.003
Small retail shop	30	72501.20	19926.93	5.859*	-0.154
unregistered footpath based hotel and restaurant	20	129700.00	8450.00	10.103*	-0.050
Chuda,Pote etc. non-food consumption goods	20	87710.00	18450.00	7.809*	0.118
Others	18	67266.67	10877.78	6.384*	0.294
Fruit seller	30	113880.00	10286.67	9.116*	-0.251
Vegetable seller	30	91720.00	18433.47	7.723*	0.049
Ready made cloth seller	20	83880.00	15020.00	7.201*	-0.279
Ice-cream and fruit liquid seller	20	78275.00	9782.50	7.888*	0.435
Radio-TV, watch repair work	20	93040.00	8805.00	7.788*	0.227
Hair dresser	20	77064.00	20400.00	6.020*	0.395
Shoe repair and polish	20	48630.00	18002.50	6.009*	-0.054

Table 7.4: Occupation-Wise Distribution of Household Earning

\*significance at 0.01 level

Average household earning from IS and OS of the respondents on the basis of the occupations of also examined (Table 7.4). The correlation coefficient between two sources of household incomes of different occupations showed that about half of them were found to be negative but none were significantly different. Positive correlation coefficient shows that both sources of incomes go toward same direction. It meant, the family size was larger or their size of occupation were found to be smaller or mixed of these. The negative correlation coefficient meant, to increase from either sources will not be possible without decreasing sources and earning from the other source In most of the larger size of unit of the occupations in terms of labor force and investment have been found to support this view. However, the correlation coefficient in any case was not found significantly different between two the sources of household incomes. In each occupation the size of income from IS was found to be grater than OS and it was significantly different in each occupation.

Occupation		U1		U2		R1	
		Mean	n	Mean	n	Mean	
Rickshaw pulling work	20	195.583	8	126.042	2	158.333	
Cycle repair and pumping work	6	250.556	6	259.444	8	11.785	
Tailoring	19	243.158	6	153.611	5	81.091	
Small tea & Coffee shop	6	195.417	1	180.000	13	59.283	
Bread, cake, loaf etc. frying food	9	194.444	2	184.167	9	46.664	
Carpenter or furniture making work	9	575.556	1	60.000	10	97.949	
Small retail shop	6	309.722	9	186.296	15	114.668	
Unregistered footpath based hotel and restaurant	11	473.485	3	394.444	6	97.475	
Chuda, Pote etc. non-food consumption selling activity	7	249.286	9	285.185	4	220.017	
Fruit selling work	21	377.460	4	113.750	5	117.305	
Meat Shop	9	418.148	3	261.111	18	183.106	
Vegetable selling work	11	303.788	4	239.583	15	176.654	
Ready made cloth seller	16	224.375	2	318.333	2	144.179	
Ice-cream and fruit liquide selling work	11	230.758	4	164.583	5	47.140	
Radio-TV, watch repair work	9	290.741	7	273.810	4	463.897	
Hair dressing work	7	283.333	4	170.833	9	102.030	
Shoe repair and polish work	5	195.667	6	130.000	9	167.525	

Table 7.5: Income status in different locations

It can be concluded from the Table 7.4 that the average household earning from trading types of jobs were found to be greater than the services types occupations. The average household earning of IS from "shoe repair and polish work" was found to be the least. The services work like "radio, T.V. watch repairing work" received highest average household income from IS than average earning from OS. Less variation in average household incomes from OS was found between occupations than IS earning.

Occupation	U <sub>1</sub> v	$U_1 vs U_2$		vs R	U <sub>2</sub> vs R		
Occupation	"t"	"p"	"t"	"p"	"t"	"p"	
Bread, Cake, Loaf etc. frying food	0.167	0.871	0.937	0.363	0.352	0.733	
Carpenter or furniture making work	1.486	0.175	3.445*	0.003*	-1.120	0.292	
Chuda, Pote etc. non-food consumption goods	-0.679	0.508	0.142	0.890	0.768	0.459	
Cycle repair and pumping work	-0.087	0.932	1.137	0.278	0.916	0.378	
Fruit seller	4.052*	0.000*	2.265*	0.033*	-1.150	0.288	
Hair dresser	2.315*	0.046*	1.344	0.200	-0.222	0.829	
Ice-cream and fruit liquid seller	1.225	0.242	-1.105	0.288	-0.936	0.380	
Meat Shop	0.861	0.410	2.047	0.051	0.254	0.802	
Ready made cloth seller	-1.186	0.253	0.098	0.923	1.653	0.240	
Radio-TV, watch repair work	0.213	0.834	1.384	0.194	0.922	0.380	
Rickshaw puller	2.789*	0.010*	0.763	0.455	-1.505	0.171	
Shoe repair and polish	4.741*	0.001*	5.832*	0.000*	2.227**	0.044**	
Small retail shop	2.676*	0.019*	2.814*	0.011*	0.539	0.595	
small tea shop	0.175	0.868	1.507	0.150	0.588	0.567	
Tailoring	1.306	0.205	0.961	0.347	-0.352	0.733	
Unregistered footpath based hotel and Restaurant	0.400	0.696	0.201	0.843	-0.305	0.769	
Vegetable seller	0.825	0.425	1.415	0.170	0.218	0.83	

Table 7.6: Inter-group Comparison

\*Significance at 0.01 level; \*\* significance at 0.05 level

The average daily household earnings from informal sector of the respondents from the same of each occupation in different locations were estimated which have been shown in Table 7.5 and it showed that the level of earnings in urban and more developed areas were found to be higher than rural and less developed areas. In different occupations the level of earnings in different locations were also found to be different. The distribution of the

size of samples in between locations were variation due to the different nature of occupations.

The average daily household earnings from informal sector from same occupation in between different locations were distributed and whether in each period locations these were statistically different or not were also tested using independent samples t-test. In the comparison, the exact significance level (p-value or probability value) was also estimated which have been shown in Table 7.6. Due to the variation in income level between paired locations earnings of the same occupation was found to be significantly different. Highly differences were found in between U<sub>1</sub> and rural locations than other paired locations (U<sub>1</sub> and U<sub>2</sub>, U<sub>2</sub> and rural).

Thus, through the statistical inferences, the hypothesis 'through informal sector average level of earnings remain low but it varies widely within the informal sector itself' was tested and it was found to be significantly different in some informal sector activities.

Castes	n	Per capita Earning from IS (in NRs)	Per capita Earning from OS (in NRs)	t-values	Correlation Coefficient (r)
Brahman/chhetri	174	21268.31	3128.89	18.007*	-0.161**
Vaisya	140	17557.22	3637.45	14.354*	0.009
Dalit	54	14844.44	3256.35	7.462*	-0.100
Muslim	24	15427.02	2029.27	6.222*	-0.298
Others	26	15585.64	2164.10	6.637*	0.218

 Table 7.7: Caste-Wise Distribution of Per Capita Earning

\*significance at 0.01 level ; \*\*significance at 0.05 level

The source of household earning of the respondents using two sources on the basis of per capita incomes of each caste has been shown in Table 7.7. The correlation coefficient of per capita earning between IS and OS of Brahmana/Chhetri was found to be negative and significantly different. In this caste, to increase per capita income from either source will not be possible without decreasing per capita earning of the other sources by reducing

investment in terms of labour, money investment etc. They will fully utilize their resources between two sources of income. The correlation coefficient of the remaining castes some were positive and some were negative but not significant different. We could not say statistically about the direction of change of either source of per capita incomes of the castes. In each caste per capita earning form IS was found to be greater than OS and the difference between two sources of per capita incomes was found significant different. Major two castes under this analysis Brahman/chhetri were found to be greater while the rate of earning of Dalit was found to be the least among the castes.

But the other sources of earning of per capita from of Vaisya was found to be greater per capita earnings of Muslim was found least in aggregate of the two sources.

# 7.3 Estimation of Income Earning Functions under Castes and Occupations

To explain the about the informal sector earning function under castes and different occupations multiple regression technique was used according to the nature of variables.

How the informal sector earning has been affected by changing labour forces, investment, education etc was also examined using multiple regression technique in log linear form i.e, Cobb-Douglas types of production function. In functional relation, Yi = f (IsL, INV, LitL)

Cobb-Douglas form  $Y_i = A \times ISL^{\beta_1} \times INV^{\beta_2} \times LitL^{\beta_3} \times ui$ ; Where  ${}^{\beta_1} + {}^{\beta_2} + {}^{\beta_3} = 1$ 

Using natural Log,  $\log_e Y_i = \beta_{oi} + \beta_{li} \log_e ISL + \beta_{2i} \log_e Inv + \beta_{3i} \log_e LitL + vi$ 

Where 
$$log_e ui = vi$$
;  $\beta_o = Log_e A$ 

Where, Y<sub>i</sub> = Per day household earning from informal sector

ISL= No of supply of labour in informal sector activities.

INV = Per day household investment in informal sector activities.

LITL = Literacy level (No. of schooling) of the respondent.

 $^{\beta}_{0}$  = constant; Log<sub>e</sub> = natural log based on 'e '

 $\beta_1$ =coefficient or elasticity of no of supply of labour in informal sector (ISL)

 $\beta_2$ =coefficient or elasticity of investment (NRs) per day (INV)

 $\beta_3$ =coefficient or elasticity of literate level (no of schooling) of the respondent (LITL)

Under the three explanatory variables (IsL, INV, LitL) the various models of earning functions had been estimated for different castes and occupations.

Castes		E	Estimated Co	oefficients		
	β <sub>0</sub>	β 1	β 2	β <sub>3</sub>	F-test	R²
Brahman/Chhetri	3.387	0.129	0.069	0.763	140.659*	0.744
(n=174)	(26.588)*	(2.648)*	(1.514)	(15.177)*		
Vaisya	2.991	0.155	0.118	0.720	108.687*	0.767
(n=140)	(18.042)*	(2.521)**	(2.147)**	(11.915)*		
Dalit	2.769	-0.027	0.069	0.913	80.762*	0.890
(n=54)	(16.751)	(-0.358)	(0.850)	(10.821)*		
Muslim	2.784	-0.003	0.033	0.879	15.877*	0.799
(n=24)	(8.006)*	(-0.024)	(0.226)	(5.874)*		
Others	3.374	0.376	0.030	0.670	33.080*	0.884
(n=26)	(9.563)*	(3.327)*	(0.300)	(5.701)*		
All	3.107	0.129	0.097	0.758	373.074*	0.780
(N=418)	(38.270)*	(4.054)*	(3.254)*	(23.039)*		

Table 7.8: Estimation of Income Earning Functions in Different Castes

\*significance at 0.01 level; \*\* significance at 0.05 level; figures within parentheses are t-values

The informal sector earning functions of the respondents under caste basis (Brahman/Chhetri, Vaisya, Dalit, Muslim and Others) were estimated in log linear Multiple regression analysis in Cobb Douglas form (Table 7.8). Among the caste, Brahman/ Chhetri and Vaisya were the dominant castes where around 75 percent respondents were involved.

All the models were found significant. The coefficients on constant term ISL, INV and LITL for the informal sector earning function of Brahmin/Chhetri

showed positive signs, and the coefficients on constant term ISL and LITL were significant but INV was not found significant. In each 100 percent increment in ISL, INV and LITL caused to increase nearly 13 percent, 7 percent and 76 percent in household informal sector earning function of Brahmin/ Chhetri. In this informal sector earning function of Brahmin/Chhetri all the explanatory variables were reflecting complementary effect to raise the informal sector income but the participation rate was found to be different. The elasticities i.e., coefficients of explanatory variables showed that stronger role was found for the literacy level of the respondents to raise the level of informal sector earning of the household of Brahman/Chhetri.

Of the Informal sector earning function of Vaisya, the coefficients of the ISL and INV were positive and each was significant. The constable term and coefficient of LITL both were positive and significant. The elasticitices of the explanatory variables under informal sector earning function of Vaisya showed that literacy level of respondent was found to be dominated role in the determination of household earning and ISL and INV were found to be more inelastic compared to LITL in household earning function of Vaisya.

The estimated coefficients in the household informal sector earning functions for Dalit and Muslim respondents were the same signs and trends. The coefficients on LITL for informal sector earning function of Dalit were significant. The coefficients on ISL was found negative sign but not significant. Coefficient on INV was found positive but not significant. The negative sign showed that if the supply of unskilled labor the earning rate would be decreased which may be the possible cases in technical works. Marginal productively of labour may be negative. Same conclusion was found under informal sector earning function of Muslim except the coefficient of Constant term. In each caste the significant factor in informal sector earning function was the Literacy level of the respondent. It can be concluded that the respondents who were more skilled (literacy level) could earn more than the larger rate of investment.

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Quantum di ana			Estimated (	Coefficients		
Occupations	β <sub>0</sub>	β <sub>1</sub>	β2	β <sub>3</sub>	F-test	R²
Cycle repair and pumping work (n=20)	3.801 (6.431)*	0.427 (2.090)**	0.145 (0.785)	0.323 (1.555)	6.001*	0.529
Tailoring (n=30)	3.496 (7.781)*	0.232 (0.893)	0.690 (4.503)*	0.198 (0.814)	15.230*	0.765
Small tea and coffee shop (n=20)	3.746 (10.738)*	0.153 (0.820)	0.316 (1.638)	0.555 (3.002)*	5.778*	0.553
Bread, cake, loaf, etc frying food selling work (n=20)	3.161 (5.861)*	-0.146 (-0.966)	0.122 (0.746)	0.840 (5.348)*	13.161*	0.814
Carpenter or furniture making work (n=20)	3.580 (15.192)*	0.419 (3.219)*	0.043 (0.413)	0.550 (4.798)*	183.093*	0.980
Small meat shop (n=30)	2.184 (4.556)*	0.219 (2.556)**	0.196 (2.144)**	0.662 (7.101)*	67.850*	0.906
Small retail soap (n=30)	3.197 (10.742)*	0.227 (1.903)	0.020 (0.200)	0.733 (6.196)*	25.618*	0.770
Unregistered foot-path hotel and restaurant (n=20)	2.484 (4.569)*	0.239 (1.807)	0.462 (3.449)*	0.433 (3.269)*	19.690*	0.797
Chuda, pote etc., non-food con- sumption goods selling work n=20)	3.242 (6.872)*	0.236 (1.794)	0.001 (0.004)	0.795 (5.918)*	15.776*	0.772
Fruit selling work (n=30)	3.195 (4.947)	0.145 (1.263)	0.139 (0.932)	0.735 (5.388)*	34.016*	0.857
Vegetable selling work (n=30)	2.579 ( 4.710)	0.004 ( 0.040)	0.108 (0.965)	0.837 (6.775)*	31.032*	0.816
Ready made cloth selling work (n=20)	2.993 (15.209)*	0.129 (1.726)	0.306 (3.528)*	0.653 (7.733)*	94.665*	0.959
Ice-cream and fruit liquid selling work (n=20)	3.575 (8.899)	0.407 (2.804)**	0.039 (0.346)	0.589 (3.835)*	26.952*	0.861
Radio T.V., watch repair work (n=20)	3.511 (14.318)*	0.284 (2.069)	0.234 (1.635)	0.511 (3.786)*	71.703*	0.951
Hair dressing work (n=20)	2.962 (10.222)*	0.207 (1.555)	0.041 (0.382)	0.768 (5.267) *	45.702*	0.932
Shoe repair and polish work (n=20)	3.681 (4.406)*	0.038 (0.163)	0.024 (0.105)	0.846 (4.385)*	6.457**	0.708

# Table 7.9: Estimation of Income Earning Functions in DifferentOccupations

\*significance at 0.01 level; \*\* significance at 0.05 level; figures within parentheses are t-values

The estimated coefficients in the household informal sector earning function for "Others" castes showed that supply of labour and literacy level of the respondent was found to be significant but the coefficient of investment was not found to be significant. It can be infer that the other castes were involved in those activities where labour intensive technique with skilled work but less amount of investment was used.

Income earning functions of different occupations were estimated where ISL, INV and LITL were used as explanatory variables. Table 7.9 shows that all models were found to be significant. In most of the models coefficients or elasticities of the explanatory variables showed positive and therefore there was complementary effect whether each explanatory variables was significant or not significant. Due to the different nature and size of the occupations the conclusions using explanatory variables for earning functions were found to be different. In few models of the corresponding occupations where INV and LITL were found to be significant whether these were based on single person or handled by family. Some occupations were found to be labor-intensive where supply of labour and literacy level of the respondents were found to occupy dominant position in the earning function. It justified our hypothesis of the study. Single person or "mobile" or "service" based occupations where supply of labour and investment were inelastic but literacy level of the respondent was the only significant factor. Similarly, very few models where all explanatory variables were significant in income earning function and these seem as larger size. The occupations whether it was small unit or relatively larger in each case the literacy level of the respondent was found to be major role in income earning function. Thus, in most of the models, LITL was found to be a significant factor in the income earning function whether it was single person, or family based or relatively larger in size.

Due to different types of activities and different nature same types of explanatory variables were not applicable in different occupations. Among the occupations "rickshaw pulling work" was found different in informal sector earning function. In this occupation the number of labour is one with a fixed

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daily investment. So the informal sector earning function for "rickshaw pulling work" was used the following function:

General functional form will be:

Yi (daily informal sector earning) =f (literacy level of the respondent, Age)

Cobb Douglas form will be:  $Y_i = Ax LITL^{\beta}_1 x AGE^{\beta}_2 x v_i$ 

Cobb Douglas form in natural log:  $Log_e Y_i = {}^{\beta}_{0i} + {}^{\beta}_{1i} log_e LITL + {}^{\beta}_{2i} log_e AGE + u_i$ 

 $^{\beta}_{0}$ = constant; Log<sub>e</sub>= natural log based on 'e '

 $\beta_1$ =coefficient or elasticity of literate level (no of schooling) of the respondent (LITL)

 $\beta_2$ =coefficient or elasticity of the age of the respondent (AGE)

Occupations	Estimated Coefficients							
	β 0	β 1	β 2	F-test	R <sup>2</sup>			
Rickshaw pulling work (n=30)	1.877 (2.351)*	0.487 (3.236)*	0.443 (2.947)*	14.213*	0.575			

Table 7.10: Estimation of Income Earning Function in Rickshaw Pulling Work

\*significance at 0.01 level; figures within parentheses are t-values

Literacy level (LITL) and age factor play significant role in informal sector earning of the household of "rickshaw pulling work". Generally neither higher age nor a child labour age group would be applied to rickshaw pulling work. Therefore, as age and literacy level of the respondents became higher earning capacity would be increased due to increase in experience. Those respondents who were more educated can deal better to earn more to the customers. The coefficients of the informal sector showed that the literacy level

(LITL) had the higher value elasticity than the coefficient of age (AGE) but not so different. So, both were equally important to earn household income from "rickshaw pulling work".

#### 7.4 Employment Pattern under Occupations

Occupations	n		Sex		Share%
		Male	Female	Total	
Rickshaw pulling work	30	100.0	0.0	100.0	7.2
Vegetable selling work	30	63.3	36.7	100.0	7.2
Fruit selling work	30	16.7	83.3	100.0	7.2
Shoes repair and polish work	20	100.0	0.0	100.0	4.8
Ready made cloth selling work	20	75.0	25.0	100.0	4.8
Small meat shop	30	96.7	3.3	100.0	7.2
Small retail shop	30	66.7	33.3	100.0	7.2
Small tea and coffee shop	20	15.0	85.0	100.0	4.8
Tailoring	30	60.0	40.0	100.0	7.2
Ice- cream and fruit liquid selling work	20	90.0	10.0	100.0	4.8
Carpenter or furniture making work	20	100.0	0.0	100.0	4.8
Hair dressing work	20	90.0	10.0	100.0	4.8
Bread, cake, loaf etc. frying food selling work	20	75.0	25.0	100.0	4.8
Unregistered foot-path hotel and restaurant	20	30.0	70.0	100.0	4.8
Radio, T.V., watch repair work	20	90.0	10.0	100.0	4.8
Chura, pote, etc., non-food consumption goods selling work	20	50.0	50.0	100.0	4.8
Cycle repair and pumping work	20	100.0	0.0	100.0	4.8
Others	18	94.4	5.6	100.0	4.3
Total	418	72.0	28.0	100.0	_

Table 7.11: Distribution of Occupations by Sex

The distribution of respondents in each occupation was distributed between males and females. All the respondents were males in "rickshaw pulling work", "shoe repair and polish work", "carpenter or furniture making work" and "cycle repair and pumping work". There was no such occupations where all were females at least half female respondents based occupations were "fruit selling work", "small tea and coffee shop", "un-registered footpath hotel" and "chura, pote, etc, non food consumption goods selling work". The involvement of males were in all the occupations due to different nature between sex like physical structure, traditional culture, economic condition etc. are the main

factors for choice of occupation for a male and a female which was not an exception in Nepal too (7.11).

The involvements of females were in mostly trading types of occupations where the supply of labour and investment are relatively elastic and the rate of return was high. The main purpose of females to involve in IS was found to earn income not merely employment. But for males it was both employment as well as earning. Hard physical labours oriented some occupations like "rickshaw pulling work", "shoe repair and polish" where the earning rate was low and hardly support to maintain minimum daily requirement were engaged by males only.

Actors' involved in informal	n	Loc	cation perspect	tive	Total
activities			Semi-		
		Mobile	mobile	Fixed	
Rickshaw pulling work	30	100.0	0.0	0.0	100.0
Vegetable selling work	30	50.0	6.7	43.3	100.0
Fruit selling work	30	26.7	46.7	26.7	100.0
Shoes repair and polish work	20	20.0	50.0	30.0	100.0
Ready made cloth selling work	20	30.0	35.0	35.0	100.0
Small meat shop	30	6.7	3.3	90.0	100.0
Small retail shop	30	13.3	0.0	86.7	100.0
Small tea and coffee shop	20	0.0	50	95.0	100.0
Tailoring	30	3.3	0.0	96.7	100.0
Ice- cream and fruit liquid selling work	20	65.0	20.0	15.0	100.0
Carpenter or furniture making work	20	10.0	15.0	75.0	100.0
Hair dressing work	20	10.0	0.0	90.0	100.0
Bread, cake, loaf etc. frying food selling work	20	70.0	5.0	25.0	100.0
Unregistered foot-path hotel and restaurant	20	5.0	0.0	95.0	100.0
Radio, T.V., watch repair work	20	5.0	0.0	95.0	100.0
Chura, pote, etc., non-food consumption goods selling work	20	45.0	5.0	50.0	100.0
Cycle repair and pumping work	20	0.0	0.0	100.0	100.0
Others	18	66.7	16.7	16.7	100.0
total	418	29.7	11.2	59.1	100.0

Table 7.12: Distribution of Occupations by Mobility

(norcont)

Table 7.12 shows that the number of respondents of each occupation was distributed between different types of "mobility" in percent form. According to the percentage basis, "mobile" dominated activities i.e. 50 percent or more than 50 percent involvement of the mobility perspective in the occupations were "rickshaw pulling work", "vegetable selling work", "ice – cream and fruit liquid selling activity", "bread cake loaf etc, frying food selling activities" and "other activities". In "semi – mobile" dominated work was "shoes repair and polish work". In fixed activities they were small "retail shop"; "small tea and coffee shop", and "tailoring"

able 7.13: Distribution o آ	f Occupations	by Location
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(percent)

Actors' involved in informal	n	Lo	cation perspect	tive	Total
activities		<u>U</u> 1	U <sub>2</sub>	Rural	
Rickshaw pulling work	30	66.7	26.7	6.7	100.0
Vegetable selling work	30	36.7	13.3	50.0	100.0
Fruit selling work	30	700	13.3	16.7	100.0
Shoes repair and polish work	20	25.0	30.0	45.0	100.0
Ready made cloth selling work	20	80.0	10.0	10.0	100.0
Small meat shop	30	30.0	10.0	60.0	100.0
Small retail shop	30	20.0	300	500	100.0
Small tea and coffee shop	20	30.0	5.0	65.0	100.0
Tailoring	30	63.3	20.0	16.7	100.0
Ice- cream and fruit liquid selling work	20	55.0	20.0	25.0	100.0
Carpenter or furniture making work	20	45.0	5.0	50.0	100.0
Hair dressing work	20	35.0	20.0	45.0	100.0
Bread, cake, loaf etc. frying food selling work	20	45.0	10.0	45.0	100.0
Unregistered foot-path hotel and restaurant	20	55.0	15.0	30.0	100.0
Radio, T.V., watch repair work	20	45.0	35.0	20.0	100.0
Chura, pote, etc., non-food consumption goods selling work	20	35.0	45.0	20.0	100.0
Cycle repair and pumping work	20	30.0	30.0	40.0	100.0
Others	18	11.1	16.7	72.2	100.0
total	418	44.0	19.6	36.4	100.0

It can be concluded that single person and self-employed activities were based on either "services" or less amount of investment for trading related occupations which were dominated by "mobile" or "semi-mobile" but in "fixed" elastic types of supply of labour and relatively larger amount of investment related occupations were found.

Location wise distribution of occupation has been shown in Table 7.13. A ratio 50 percent and more than 50 percent of involvement among the respondents in each informal sector activity in U<sub>1</sub> were "rickshaw pullers", "fruit sellers" "ready – made cloth sellers", "tailoring", "ice – cream and fruit liquid sellers", "unregistered foot – path hotel". Similarly in rural areas, these activities were "vegetable sellers", "small meat shop", "small retail shop" "small tea and coffee shop", "carpenter or furniture making work" and "other" and none of the activities in U<sub>2</sub> was found but the occupations relatively larger percent of the location was 'Chura pote, etc, non – food consumption, goods sellers". Among the total locations respondents 44 percent, 19.6 percent, 36.4 percent were employed in U<sub>1</sub>, U<sub>2</sub> and rural locations respectively.

Single person or mobility types or larger amount of investment types of occupations were mainly found in the urban locations. Agricultural production based related occupations were dominated in rural location as can be derived from Table 7.13.

#### 7.5 Seasonally Working Status of Occupations

The average working days/month and average working hours/day in different occupations of informal sector activities in different seasons has been shown in Table-7.14. Seasonal working status in different occupations has been shown where working days/month average and average working hours/day in different seasons have been depicted. From the data these occupations were classified into three groups on the basis of fluctuation in working hours per day and working days per month in different seasons. In the classification less fluctuated occupations were: "vegetable selling work", "fruit selling work ", "ready made cloth selling work", "small retail shop" "tailoring", "hair dressing work, "unregistered foot-path hotel and restaurant", "radio, T.V., watch etc.

repair work" "chura, pote, etc., non-food consumption goods selling work", "cycle repair and pumping work"; moderately fluctuated occupations were: "rickshaw pulling work ", "small meat shop", "small tea and coffee shop", "carpenter or furniture making work", "others" and highly fluctuated occupations were: "shoes repair and polish work", "ice- cream and fruit liquid selling work ", and "bread, cake, loaf etc. frying food selling work " among the occupations the :ice – cream and fruit liquid selling work" was more fluctuated in both working days as well as working hour.

Actors' involved in	n	Avera	Average working days/month in			Average working hours/day in			
informal activities	n	Sum	Rainy	Autumn.	Win.	Sum	Rainy	Autumn	Win.
Rickshaw pulling work	30	26.77	22.33	25.77	23.53	11.83	9.87	10.87	9.03
Vegetable selling work	30	25.50	24.03	24.93	25.67	9.53	9.37	9.10	9.17
Fruit selling work	30	27.20	26.13	26.83	26.23	11.07	10.30	10.57	9.87
Shoes repair and polish work	20	26.80	16.05	27.00	27.05	10.05	6.40	9.70	9.50
Ready made cloth selling work	20	26.00	24.25	27.50	27.00	10.35	9.25	10.70	10.20
Small meat shop	30	25.17	24.27	25.77	26.30	9.13	8.87	9.80	9.57
Small retail shop	30	27.97	25.17	26.37	27.20	11.47	11.33	10.93	10.67
Small tea and coffee shop	20	27.70	26.65	27.50	27.80	10.85	10.80	11.05	11.15
Tailoring	30	27.27	27.07	26.97	27.17	8.83	8.60	9.20	8.77
Ice- cream and fruit liquid selling work	20	28.20	27.65	20.20	20.25	9.45	9.60	6.90	6.70
Carpenter or furniture making work	20	25.70	23.00	25.40	25.85	9.25	8.75	9.25	9.15
Hair dressing work	20	27.45	27.10	27.65	27.25	10.00	10.10	10.10	9.90
Bread, cake, loaf etc. frying food selling work	20	25.65	17.05	24.55	27.85	8.25	5.95	8.45	8.80
Unregistered foot-path hotel and restaurant	20	28.60	27.65	27.65	28.10	11.55	11.55	11.85	11.7
Radio, T.V., watch repair work	20	26.90	25.60	26.30	26.05	9.45	9.50	9.95	9.55
Chura, pote, etc., non-food consumption goods selling work	20	27.15	27.20	27.30	27.20	9.95	9.90	9.70	10.00
Cycle repair and pumping work	20	26.70	25.20	25.40	25.95	9.90	9.65	9.75	9.60
Others	18	22.83	20.56	21.89	23.44	9.55	7.83	6.28	8.94
Total	418	26.66	24.37	25.89	25.46	10.07	9.38	9.83	9.35

 Table 7.14: Distribution of Seasonal Working Status of Occupations

It can be derived that services based activities were found to be more fluctuated than trading based activities in different informal sector activities.

				Not			
Actors' involved in informal activities	n	Unemployed	Other income earning work	Household work	Total affected	affected by Off- season	Total
Rickshaw pulling work	30	0.0	0.0	0.0	0.0	100.0	100.0
Vegetable selling work	30	0.0	0.0	3.3	3.3	96.7	100.0
Fruit selling work	30	0.0	0.0	3.3	3.3	96.7	100.0
Shoes repair and polish work	20	0.0	15.0	35.0	50.0	50.0	100.0
Ready made cloth selling work	20	0.0	0.0	5.0	5.0	95.0	100.0
Small meat shop	30	0.0	0.0	10.0	10.0	90.0	100.0
Small retail shop	30	6.7	0.0	6.7	13.3	86.7	100.0
Small tea and coffee shop	20	5.0	0.0	10.0	15.0	85.0	100.0
Tailoring	30	3.3	0.0	6.7	10.0	90.0	100.0
Ice- cream and fruit liquid selling work	20	0.0	65.0	10.0	75.0	25.0	100.0
Carpenter or furniture making work	20	0.0	10.0	200	30.0	70.0	100.0
Hair dressing work	20	0.0	0.0	5.0	5.0	95.0	100.0
Bread, cake, loaf etc. frying food selling work	20	0.0	25.0	25.0	500	50.0	100.0
Unregistered foot-path hotel and restaurant	20	0.0	5.0	0.0	5.0	95.0	100.0
Radio, T.V., watch repair work	20	0.0	0.0	10.0	10.0	90.0	100.0
Chura, pote, etc., non- food consumption goods selling work	20	5.0	5.0	10.0	20.0	80.0	100.0
Cycle repair and pumping work	20	0.0	5.0	5.0	10.0	9.0	100.0
Others	18	0.0	16.7	16.7	33.3	66.7	100.0
Total	418	1.2	6.9	9.3	17.5	82.5	100.0

Table 7.15: Distribution of Occupations by Off-Season Status (percent)

In terms of working hours and earning capacity, the effect of off-season unemployment status was measured in informal sector activities. Very few informal activities were affected by off – season like "ice–cream selling activity", "cycle repair and pumping work" etc was mostly expanded in summer season while earning and working capacity in winter was found less i.e., they were highly affected. On the others, some the occupations of informal sector activities, like "rickshaw pulling work", "vegetable selling work", "fruit selling work" etc were felt less seasonal effect at work. They were working and earning more or less same in all seasons. Where and how they worked in different seasons, and how much percentage were affected by off – season has been shown in Table 7.15. However, the seasonal effect was found less in general in informal sector activities in Chitwan district. It meant the significant effect was not found in informal sector activities.

#### 7.6 Financial Status under Informal Sector Activities

Characteristics	Description		Sex					
		Male	Female	Total	values			
Involvement in MFP*	Yes No	131 (43.5) 170 (56.5)	60 (51.3) 57 (48.7)	191 (45.7) 227 (54.3)	2.045			
	Total	301 (100.0)	117 (100.0)	418 (100.0)				

Table 7.16: Distributions of Respondents between Sex and MFP\*

Figures within parentheses are percentage; MFP\*(Micro-Finance Programme)

The distribution of respondents of informal sector activities between sex and whether involved in MFP or not i.e., "yes" or "no" basis, has been shown in Table 7.14. More than half (51.3 per cent) female respondents and less than half (43.5 per cent) male respondents were found involved in MFP. The various respondents who came from other districts or abroad mainly were males and they were temporarily settled in the district for carrying out their economic activities. So, they were either not interested or not believed to involve themselves in MFP. Some females of urban locations were not interested to involve themselves in MFP. The larger amount of the fund need not required in own business due to small size of job. So, the respondents

either used their own fund or need not borrow funds to carryout informal sector activities. However, the distribution of respondents between sex and "yes" or "no" in involving MFP were not differed significantly. It meant, the distribution of sex between "yes" or "no" more or less proportionately or even if the difference has been seen that will be meaningless by the statistical point of view.

Characteristics	Description		Location					
		Rural	Urban	Total	values			
Involvement in	Yes	100 (65.8)	91 (34.2)	191 (45.7)	38.872*			
MFP	No	52 (34.2)	175 (65.8)	227 (54.3)				
	Total	152 (100.0)	266 (100.0)	418 (100.0)				

Table 7.17: Distribution of Respondents between Location and MFP

\*Significance at 0.01 level; figures within parentheses are percentage

The distribution of respondents in rural and urban locations on the basis of "involvement in MFP" has been shown in Table 7.17. The size of not involved in MFP was more than half (54.8 per cent). Similarly, the size of rural and urban respondents was 36.4 per cent and 63.6 per cent respectively. Around two-third (65.8 per cent) rural respondents and around one-third (34.2 per cent) urban respondents were found to be linked with MFP. It shows that MFP becomes more effective in rural location. The reason behind this was that the various rural respondents were permanently resettled so became easy to avail from in such programs. Similarly in rural areas numerous of MFP schemes have been launched in the name of poverty alleviation by NGOs and INGOs. Some co-operative institutions are taking initiation to reduce poverty from rural areas by involving the poor people. Most of the poor are working in informal sector activities. Thus, the distribution of respondents between ruralurban locations and involvement in MFP was highly significant. Hence we can conclude that respondents of the informal sector were not proportionately distributed to benefit from MFP in rural and urban areas.

Respondents were distributed between "mobility" and "involvement in MFP" and it has been shown in Table 7.16. Degree of involvement in MFP of the

respondents was less than half (45.7 percent). Their level of involvement in "semi-mobile" and "fixed" activity was 51.1 per cent and 55.1 per cent respectively. Hence more than half of the respondents of each "semi-mobile" and "fixed" activity were involved in MFP.

Characteri-	aracteri- Descrip- Mobility					χ²
stics	tion	Mobile	Semi- mobile	Fixed	Total	values
Involvement in MFP	Yes No	31 (25.0) 93 (75.0)	24 (51.1) 23 (48.9)	136(55.1) 111(44.9)	191 (45.7) 227 (54.3)	31.353*
	Total	124 (100.0)	47 (100.0)	247 (100.0)	418 (100.0)	

Table 7.18: Distribution of Respondents between Mobility and MFP\*

\*Significance at 0.01 level; figures within parentheses are percentage

As against this, only one-fourth "mobile" respondents were linked with MFP. More than half (54.3 per cent) of the respondents were not linked with the MFP. The size of "mobile" was three tenth while "fixed" activity was around three-fifth (59.1 per cent). However, the distribution of respondents between "mobility" and "involvement in MFP" by "yes" or "no" basis differed significantly. MFP for "mobile" respondents was less effective in informal sector. Most of the respondents, who were involved in "mobile" activity, either were from temporary settlements or small size of which need not required loan or fund. It can be inferred that as the "mobility" decreases the size of job became larger and increase in fund or loan was found in informal sector activities.

## Conclusion

This chapter was made attempts to explain the various income earning functions related to underlined castes and occupations in informal sector activities. The family background indicators (average household size; household dependency ratio; temporary burden of household in terms F-test between number of unemployed persons in a house and number of employed persons in the household; per family employed value i.e, ratio of number of employed to family size; average household literacy level; and household

property) showed that Brahman / Chhetri was found better among the castes and mixed types of conclusion was found in different occupations. However, the respondents who were involved in occupations like: "shoe repair and polish work", "rickshaw puling work" were found with low household status but "unregistered foot path hotel and restaurant", "radio, T.V, watch repairing work", "fruit selling work" were found with better economic and household status.

Earning from informal sector and other sources in terms of household earning and per capita earning using statistical tools showed that the correlation coefficients between two sources in terms of household earning in most of the castes was found negative but not significant but in terms of per capita earning, for Brahman / Chhetri it was found inversely related and statistically significant showing substitution effect between two sources of per capita earnings. In each caste, the sources of income from informal sector both in per capita as well as household basis were found greater than other sources and it was significant in all cases.

The elasticities or coefficients of earning functions showed that supply of labour and literacy level of the respondents was significant in Brahman/ Chhetri but all the three explanatory variables (supply of labour, investment and literacy level of the respondent) was found significant for "Vaisya" in income earning function in informal sector activities in Chitwan district of Nepal. In each caste, literacy level of the respondents was found significant in the estimates of the earning function.

The comparison of average household earnings level in between different locations of same occupation was found to be significantly different in some occupations.

Among the respondents under occupations in few of them were investment was significant factor and in some, supply of labour was significant factor. However, in most of the cases literacy level of the respondents was found to be significant determinants. Therefore, we can infer that through schooling, the prospect of employment even in the informal sector can be better and

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more rewarding. In each of the occupation listed here the involvement of males were found but in same of the occupations like "rickshaw pulling work", "shoe repair and polish", "carpenter and furniture making work", "cycle repair and pumping work" none were females. Similarly, female dominated work under informal sector activities were: "fruit selling work", "small tea and coffee shop", "unregistered foot path hotel and restaurant". Different conclusion can be draws due to the seasonal change in the occupations. Most of the occupations were found to be affected by change of seasons but in varying degrees.

In the following chapter we would like to explain about the role of government measures towards the cause of the informal sector activities in Nepal that would have impacts on the Chitwan district as well.

#### **8.1 INTRODUCTION**

Government policies and legislations are key elements in determining the enabling or disabling environment for organization and representation of those in the informal sector. Problems of in the informal sector cannot be effectively and sustainability addressed in the absence of a supportive legal framework and governance. The most important role of government in this regard is to guarantee the freedom of all workers and employers, irrespective of where and how they work, to form and join organizations of their choosing without fear of reprisal and intimidation.

Informality is principally a governance issue. The growth of informal sector can often be traced to inappropriate, ineffective, misguided or badly implemented macroeconomic and social policies. Macroeconomic policies, including structural adjustment, economic restructuring and privatization polices, which are not sufficiently employment focused, have reduced jobs or not created adequate new jobs in the formal sector. A lack of high and sustainable economic growth inhibits the capacity of government to facilitate the transition form informal to the formal sector, through the creation of more jobs in the mainstream economy. Therefore, the role of government is very crucial in shaping the status of informal sector.

DECONT (2005)<sup>102</sup>, has envisaged some roles that government has to play for the upliftment of informal sector and its workers which we quote as follows:

 Governments must provide the conductive macroeconomic, social, legal and political frameworks for the large-scale creation of sustainable, decent jobs and business opportunities.

<sup>&</sup>lt;sup>102</sup> Democratic Confederation of Nepalese Trade Unions (2005), 'The Informal Economy Challenges for Trade Unions' Kathmandu, Nepal, December 2005, pp 105-106

- ii) Government should adopt a dynamic approach to place decent employment at the centre of economic and social development policies and also to promote well-functioning labour markets and labour market institutions, including labour market information systems and credit institutions.
- iii) To increase job quantity and quality, emphasis should placed on investing in people, especially the most vulnerable; in their education, skill training, lifelong learning health and safety, and encouraging their entrepreneurial initiative.
- iv) Poverty Reduction Strategies, in particular Poverty Reduction Strategy Papers (PRSPs), should specifically address the problems in the informal economy. The creation of decent jobs should be a measure of success for these strategies.
- v) In many developing countries, rural development and agricultural policies, including supportive legal frameworks for cooperatives, need to be enhanced and strengthened.
- vi) Special attention should be given to the care responsibilities of women to enable them to make the transition from informal to formal employment more easily.

The policies and legislation regarding the functions and regulations of the informal economy and the welfare of informal workers are viewed in the backdrop of their rights and privileges towards the decent work as defined by several informal conventions including ILO's core conventions. Decent work is the converging focus in all of the four strategic objectives of ILO – the promotion of rights at work, employment, social protection and social dialogue. The considerations in decent work are forms of work, conditions of work and feelings of value and satisfaction of workers.

Policies, legislation and regulations of the state or local governments affect the informal sector both directly and indirectly. These are only instruments and full affects realized only through their strict application and enforcement. Nepal is a party to several international conventions to the rights of labour, women and children but these have not been enforced. Nepal has ratified international conventions relating to child labour, involvement of the children in worst form of employment, sexual exploitation of children, girls trafficking, etc, but these have not been compiled with effectively. As a result such incidences are growing despite efforts to control them.

The government of Nepal has so far passed 264 Acts and 282 Rules. Among these Labour Act (1992), Trade Union Act (1992), Foreign Employment Act (1986), Children's Act (1992), Local Self-Governance Act (1999), Defection Act (1997), Labour Court Rules (1996), Labour Rules (1993), Bonus Act (1974), Bonus Rules (1982), Essential Services Act (1957) are main principal acts and rules affecting informal sector and informal workers.

In the areas of improving the work environment is ensuring decent work, there is neither legislative nor financial and other support to informal workers is available. Instead, the municipal legislative is practiced which cause harassment to workers in certain informal work such as street vending <sup>103</sup>

The flow of child labour has not declined due to weak enforcement of legislation, particularly in the informal sector, acute poverty as well ass increasing level unemployment. These legislations are however more effective in the formal sectors legislation against the discrimination in jobs and wages which is confined within the constitution of Nepal 1990. However, women labourers continue to receive lower wages than men in similar work. Moreover, several policies, legislation and practices in Nepal favor the rich compared to the poor because of the discrimination implicit therein.

A more visible indirect support to the informal sector has been the policy formation of skill development through CTEVT (Centre for Technical Education and vocation Training) centre and other private sector institutions, which provide training and educational support to enhance work skills. This provision is however, not targeted exclusively to the informal economy <sup>104</sup>.

 <sup>&</sup>lt;sup>103</sup> ILO (2004), 'The Informal Economy and Workers in Nepal Series-1' Kathmandu, Nepal, 2004, p 26
 <sup>104</sup> Ibid p34

There are examples of positive actions taken by the governments in other countries in favourable of informal enterprises but the regulations and policies by the municipal authorities in Nepal have restricted the informal activities of the very poor street vendors.

#### 8.2 Informal Sector in Different Plans

The informal sector activities came into existent after 1972 AD in international arena under the guidance of ILO. The economic development in Nepal through planning has started since 1956AD. Now 10<sup>th</sup> plan period has just finished and three years interim plan 0h+0as came into existence in the changing political situation and try to include the feelin5.10g of all Nepalese people but its actual activities have to seen.

Before 6<sup>th</sup> plan neither government agencies nor private institutions or individual had taken any initiation or research about informal sector. In the period of 6<sup>th</sup> plan (1980-1985) Nepal Rastra Bank has taken a survey MPHBS (Multi-Purpose Household Budget Survey) in 1984-85 which had provided the most comprehensive coverage of employment in Nepal where from the informal sector employment was estimated at national level but it was not mentioned in the plan at that time. Similarly, in ninth plan period (1997-2002), NLFS (Nepal Labour Force Survey) has estimated informal sector employment. In this plan period it has mentioned that the government has been unable to launch sufficient programs on providing laborers of the unorganized sector with skill training for creating opportunities of selfemployments, and unable to provide laborers with skill training focusing on the Child Labor Prone Family. In the ninth plan the informal sector was define in Nepal from government side through NLFS. One of the main strategies of the tenth plan is to increase employment opportunity. Under policies and action plan, in the tenth plan which we quoted here under:

-To increase employment opportunity (related to strategy I)
Integrated coordination of skill, capital and market system will be made available to direct the majority of unemployed people belonging to the trained, informal and unorganised sector to self-employment.

No specific policy for informal sector has been made in Nepal in this plan period.

In the eleventh plan too the specific policy for informal sector has not developed to cover all the activities. In this three year interim plan the strategy and policy about informal sector which we quoted here under:

Its strategy is to be enhancing by making education system employment oriented, opportunities for employment will be generated for new entrants in the labor market according to their capacity and skills. Policy level improvements will be carried out to create human working environment for employees and laborers of both formal and informal sectors. Institutional arrangements will be made to provide skill and training to assist the laborers productivity. Provisions will be made for training to promote skills of laborers involved in the informal sector, and to hand over appropriate technology that they can use. In this context, implementation of big projects and small participatory projects that generate employment will be given special emphasis. Priority will be given to programs that immediately provide large number of employment to women, Dalit, nationalities, youth and Madhesi Community based program. Policy: Labor force working in agriculture, gardens, transportation, construction, brick kiln, restaurant tea including home-based workers and other informal sector workers will be identified and legal arrangement will be made with a view to provide them protection;

Under the strategy and policy of the plan, including both formal and informal sectors activities for promoting employment, increasing national income, promoting economic equity and enhancing total, economic development will be privatized.

#### 8.3 Current efforts

The government of Nepal has never separating and exclusively planned for the informal part of the economy. The informal economy's concerns are addressed in general terms on sectoral and thematic lines. For examples, the government is developing and extending infrastructure such as roads, power and communication. This certainly helps the informal economy as much as they do the formal sectors.

In the areas of vocational training, the centre for CTEVT by having training facilities in several locations of the country has been providing required services. At present, there are of the 22,685 NGOs registered in the country, some 19,944 <sup>105</sup> are operational, which provide services in different sector in the name of poor and development of the country. However, due to the lack of market friendly and fast income generating character of the training is under question. Current effort by the government is basically focused on skill and vocational training and promotion of micro-finance and micro-credit activities. Indeed, very few welfare programmes are in operation. These initiatives have been launched through the Ministry of Labour and Transport Management; Ministry of Industry, Commerce and Supplies; Ministry of Women, Children and Social Welfare and the Ministry of Agriculture and Cooperatives. Coordination is always the major obstacle even among the Ministries in their activities. The government does not have any specific program for the welfare of wage workers in the informal sector.

Although Nepal has currently deteriorating economy but trying for positive political solution in the issue of economic development, combined with the impact of neo-liberal economic, political and the process of globalization have left very few options for the state provision of effective economic, social and health security in Nepal which are directly and indirectly related to informal sector and these are as follows:

<sup>&</sup>lt;sup>105</sup> From three years interim plan.

- Allowances for senior citizens, helpless and widowed women were made in the national budget since 1995. A monthly payment of NRs 100 is made to NRs 195000 elderly person's age above 75 years and NRs 230000 helpless and widowed women above 65 years of age by Ministry of Local Development through VDCs and Municipalities but which was not based on income and socio-economic condition.
- Under the present regulatory framework, the local government in the form of District Development Committees, Municipalities, and Village Development Committees has no special programmes of their own for the social protection of the working community. However, some municipalities and VDCs have made significant contributions to the development of educational facilities and have provided schooling and care of student of poor families providing medical expenses for floods, landslide or epidemics but these facilities have insufficient and differ from place to place.
- All district headquarters have one Baal Mandir for education aged 3-7 years children from poor families but in a static manner and without basic particularly effective, if has not success to summit the ultra power. Only a few urban poor and lower middle class families send their children to a Baal Mandir.
- Programs for blinds, disabled, handicapped or mentally retarded children and adults are based on modern models of social welfare. However, government policies, plans & programs that offer support to disabled persons or their families are ineffective. The measure was taken by the state programs is to provide schooling for disabled children and provide a range of vocational and skill training to adults general funded by donations from national international sources. The government budgetary contributions are insufficient.
- As a social expenditure is curtailed, subsidies are being reduced and social welfare expenditures have proportionally decreased. The inadequate quality and the high cost of many public health care services in

the private sector have made the self – financing of health care for poor families extremely difficult. The government is currently searching for more viable and cost – effective health protection schemes, and community based measures, such as health micro – insurance schemes and other health care financing schemes, have access of a majority to quality services at affordable prices.

The government should adopt a broader strategy such as encouraging the organizations of the poor, provision of credit, capacity building, establishing linkages with private and public agencies, facilities access to information and markets and helping to resolve various other issues.

In precise form the challenges ahead for government in this connection to be faced addressed may be as follows:-

- Right based awareness creation for getting a better self-reliant position for informal economy workers.
- Releasing them from various kinds of social exclusion in order to boost up their moral, dignity and productivity.
- Employment creation through all possible measures including public work schemes.
- Providing education and health services to all so that equalization of opportunities can be achieved.
- > Emergency support to every locality during contingencies.
- Launching programmes in order to ensure and guarantee minimum wages.
- Programmes on health micro insurance and health promotion services.
- Mobilization of government and non-government organizations in favour of informal sector workers at local, national and international levels.

The government's major plan for poverty reduction is the agriculture perspective plan recommendation broad - based growth for poverty alleviation. It claims that if the number of poor is reduced by such broad –

based growth, then it will be easier and less expensive to have targeted programs and safely nets. Although the package of APP, which in mostly land based, does not directly benefit the poor and ultra poor, they benefit indirectly from more implementation of the APP has been very poor so far.

The role of the state in developing countries is significantly effective to the direction of business activities in informal sector. GEFONT has demanded from government to protect the informal sector activities. What the government can do for the protection of informal sector workers? Here we quote the list of protection from government to informal sector presented by ILO (2004)<sup>106</sup> Kathmandu, Nepal, which are as follows:

- > Identify target groups with priority to the landless and Dalit.
- Drawing up a broad outline for social protection measures viable in the socio-economic condition of the country.
- > Establish a tax based and contributory fund.
- Mobilize health practitioners through zonal hospitals, district hospitals and health post for health protection programmes titled towards working people of the targeted groups.
- Facilitate membership distribution and collection of contribution from the VDC/ Municipality level.
- Reproduction health care programmes through VDC/Municipality in corporation with the DDC and Ministry of Health.
- Create and develop a network of labour offices and extend the inspection system.
- Mobilization of compulsory contribution of private nursing homes and clinics for the operation of health insurance schemes.
- Free medicine contributions equal to a small percentage of total annual production or total turnover for health insurance schemes

<sup>&</sup>lt;sup>106</sup> ILO (2004), 'The Informal Economy and Workers in Nepal' series-1, ILO, Kathmandu, Nepal, 2004, pp 42-43

from the companies producing medicines within the country or trading in the country.

- Mobilization of the existing National Welfare Fund of the formal sector to cover informal sector works through the issue of a new regulation
- Promotion and creation of incentives to organizations working for informal economy workers through rules- regulations, decentralization polices and social funds.
- Shaping and existing 'senior citizen and helpless widow' allowance from a universal age based character to a poverty based character.
- Establishing a housing scheme for rural and urban homeless families through the mobilization of cooperation also from international agencies.
- Promotion and strengthening of cooperative types of collective initiatives at the local level.
- Operation of food security schemes through the cooperation of community based organizations, charity organizations, national big business houses and international organizations like FAO and WFP.
- Allocation of poverty reduction funds to the working poor unemployed & underemployed groups mainly in remote areas.
- Income generation programmes through marketable skill trainings, market development and infrastructure development.
- > Promotion of micro-enterprises credit, tax and technology incentives.
- Free and compulsory education including stipends to children and students from Dalit, former Kamaiya, aboriginal ethnic communities and other identify poor groups.
- > Creation of database, research and publications.

Government and local government play vital role in all economic activities of the country. Non-farm sector in rural areas has shrunk despite determined efforts through soft loans, special training efforts etc. It may be useful to keep an eye on those surviving and expanding during the general trend of shrinking. Only detailed data sets can help. Sampling procedure for nebulous universe may not help much for the specific purpose. There are also new trends emerging. With a view to cost reduction, the major industries in the organized sector are shedding certain activities and passing them to small units which are parts of the unorganized sector. If these small units served as a step for later absorption of labour trained in these units for absorption in organized sectors, then they have a benign economic function. There is no evidence in support of this feature. Shrinking of unorganized sector in rural areas and expansion of unorganized or informal sector in cities, towns and peripheral areas has given an impression that the nation's labour force is being trapped in agriculture in rural areas and unorganized sector in urban and semi- urban areas. This is a major policy issue awaiting effective measure. In its absence sporadic and ad hoc measures have multiplied over time. In absence of appropriate and adequate data, no robust policy measures with effective worth while results are possible. Considering the above present scenario it was felt that emphasis on data coverage and adequacy as considered are necessary. It was felt that it needs to be awarded priority. Two other important points that emerged in the discussion – both from panelists as well as floor participants - concerned a well articulated targeting of policy prescriptions as well as a well designed delivery system. This was necessary whether one was thinking of public distribution system, employment schemes or micro finance. Needle as to point out that a large segment of the informal sector of non agricultural activities is located in urban and semi urban areas, so that it would be wrong to draw policies in this context with large element of a rural setting in mind. It was, however important to note that delivery system for the rural areas was more fragile, inefficient, prone to corruption and misuse.

# 8.4 Targeted Self – Employment: Policy Lessons for Future

From the past experiences the following steps should be considered for self – employment creation schemes in Nepal.

- a) Their impact in sustainable employment generation as a whole is limited, give the size of the programmes, in relation to the extent of the underemployment and unemployment problem in Nepal.
- b) Recoveries on investments made by such programmes are low.
- c) The average size of loan are not necessarily relevant for programme success or at least non – failure. Both the small farmer development programme and Grameen Bikash Bank relative better recoveries than other programmes and yet have loans sizes at the opposite end of the spectrum of lending in such programmes.
- d) Targeted group formation in itself may not lead to programme success, although good targeting (for a limited number of women groups in the Small Farmer Development Programme and as a matter of procedure in Gramin Bikash Bank) may be an important factor. There may be a trade off between carefully selected target group formation which is likely to slow down the expansion rate in relatively successful scheme with respect to the target group (only 20 percent of groups in small farmer development programme are women 's groups), and the faster spread of a comparatively less successful scheme which is liberal in terms of targeting.
- e) Administrative intervention can drain resources potentially available for borrowers.
- f) Non- subsidized interest rates when combined with proper targeting can work, while untargeted availability of cheap capital can lead to adverse selection. Easy accessibility to capital is of much greater importance than the soft terms on which it may be made available.

g) There is greater evidence for success in lending for self-employment in sectors that are not directly agriculture based.

This suggests that self-employment schemes should not be viewed just as mechanisms for addressing the poverty and employment crisis in Nepal. They are equally important in having a demonstration effect on improving conditions of employment in the labour market and smoothening the operation of the capital market.

# Conclusion

Government policies and legislation are key elements for enabling or disabling environment for organization and representation of those in the informal sector. The most important role of government is a creation of safety environment in their business. DECONT has focused some roles that government has to play for the upliftment of informal sector and its workers which are as follows: government most provides the inductive macroeconomic, social, legal and political frameworks for the large-scale creation of sustainable, decent jobs and business opportunities; economic and social development polices should be adopted and to promote well-functioning labour market and labour institutions including labour market information systems and credit institutions: emphasis should be placed on investing in people especially the most vulnerable in their education, skill training, lifelong learning health and safety, and encouraging their entrepreneurial initiative; under poverty reduction programs government should address the problems of informal economy; there should be creation of environment in informal sector activities for female employed.

Nepal has involved in several international informal sector conventions including ILO's core conventions. Four strategic objectives of ILO are: the promotion of rights of work, employment, social protection and social dialogue has accepted. Moreover, Nepal government has passed 264 Acts and 282 rules in total human rights. Some of these rules and principles are indirectly related or are affected to informal sector activities or to workers. Specific rules

or acts are not directly related informal sector or workers up to now. Several polices, legislations and practices are in favor of rich compare to poor.

CTEVT and others privates institutions, at present, there are of the 22,685 NGOs registered in the country, some 19,944 are operational, which provide training and educational support to enhance work skills. This provision is however not targeted exclusively to the informal economy in Nepal.

Regulations and polices by the municipal authorities in Nepal have restricted the informal sector activities of the very poor street vendors. Though the various agencies of government have tried to focus on skill and vocational training to promote of micro-finance and micro-credit activities very few welfare programs are in operation In the name of poor but not specific program has used as other developing countries have been done for informal sector workers. In Nepal GEFONT, ILO has been demanded from Nepal government to protect the informal sector activities in various ways. However, the three year interim plan has tried to address favourably toward the informal sector but it is not specific and sufficient.

# CHAPTER-IX CONCLUSION AND POLICY SUGGESTIONS

#### 9.1 CONCLUSION

Informal sector and its evolution has revealed that it had began in the early 1970s when ILO first coined the term informal sector. It has assumed significance due to its strong impact on employment all over the world. The regular data collection in informal sector in Nepal has not been done neither from the government side nor from non-government side. However, in the adhoc form, the government side has conducted two informal sector studies by indirect ways but not in separate informal sector surveys as it has been done in India many times. One of the study was based on the primary data collected by the Nepal Rastra Bank's Multi-purpose Household Budget Surveys in 1984/85 and the other study was based on the Report on Nepal Labour Force survey 1989/99 undertaken by CBS. In both the surveys, the informal sector was based on non-agricultural sector and the main occupation was based for informal sector. According to the latest informal sector survey (1989/99), 73 percent of all employed in main jobs are in the agricultural sector and employed in informal sector in Nepal. In fact, the evolution of informal sector in Nepal has been rapid from occupational borne activities to business oriented activities and mostly concentrated in urban areas although in rural areas it is expanding. Thus, the informal sector is important in Nepal due to its growing influence in the local and national economy, although income earning capacity in each activity is low but they are collectively large and valuable and it contributes significantly to employment and earnings of the poor stakeholders.

Present study of the informal sector is a case study of Chitwan district. Due to the different nature of informal sector in rural and urban location mixed household and enterprise surveys have been designed according to the objectives of the study. The study areas were classified into two broad areas: urban and rural, Bharatpur Nepal-Palike (U<sub>1</sub>) and Ratnanagar Nagarpalika

 $(U_2)$  and in urban areas 36 VDCs (Village Development Committee) are in rural area of the district. It was assumed that informal sector activities were proportionally distributed to the size of population. The rural area was distributed into four strata. The sample size of each strata was based on the population of the census of 2001 of Nepal. 152 residents were taken from these areas using random sampling method. Due to the lack of universe of different occupations in informal sector a plot survey was undertaken to determine the size of each occupation. Similarly in urban areas, the respondents were taken from different cluster areas using random sampling method to fulfill the pre-determined size of each occupation of pilot survey. 266 respondents were selected from urban location in which 184 were from U<sub>1</sub> and 82 were from U<sub>2</sub>. Among the total respondents (418), 301 were males and 117 were females.

From the total respondents the collected information have been analyzed of the study areas according to the objectives in three different chapter (V, VI and VII). Various analytical methods have been used. Different methods for testing different hypotheses have been adopted. In each technique of analysis, SPSS software computer programme has been used. To meet the nature of the objectives and corresponding hypothesis, the following statistical techniques has been used:

- (a) In order to describe the employment pattern and characteristics of informal sector activities,  $\chi^2$ -test has been used. In few cases where it is not applicable simple tabular form in percentage basis has been used.
- (b) In estimation of the relative productivities under different informal sector activities arithmetic mean, correlation coefficient, t-test or z-test and pair sample mean test have been used.
- (c) The estimation of income earning function, multiple regression in Cobb-Douglas function form (in log linear i.e., e-based) technique has been used.

The present study has attempted to find out the role of the informal sector in the Nepalese economy with the help of a case study of informal sector in Chitwan District. Various features of the informal sector have been attempted to be probed in this important study. The major conclusions of the study can be delineated as under:

- More than four-fifth respondents were found literate in informal sector activities and the distribution of them between sex was not statistically different. Sex-wise distribution of age group was not statistically significant but it was different in case of locations. Higher percentage of lower age group was found in urban locations while higher percentages of higher age group were found in rural area.
- 2. The largest size under the "industrial classification" was "services" and it was around two-fifth and it was followed by "purchase and sales" activities having three-tenth. Age distribution between "mobility" was not found to be significantly different but the size of "fixed" was greater than the sum of the respondents who were involved in the remaining other two activities. Among the respondents of higher age, the smallest size was from "semi-mobile". All the respondents of "services", under "mobile" and "semi-mobile" were from males. Only 15.2 percent females were in "services". Around half of the female respondents were in "purchase and sales" and half of the male respondents were in "services".
- 3. The two largest size under "labour category" were "self-employed" and "family member employed" where around three-fourth informal sector activities were involved. "Self-employed" activity was dominated by males. The largest numbers of involvement of females were in "family member employed" but still it was dominated by males.
- 4. Distribution of sex between "mobility" was found to be significantly different. Similarly, location-wise distribution of "working spot" was found statistically different but sex-wise it was not significantly different. Distribution of "mobility" by "working spot" was found meaningfully different.

- 5. Human capital asset was highly used than capital asset in the informal sector activities. Traditional means of transportation, like, "Thela"; "rickshaw"; "cycling" etc. were practiced under "mobile" activities which were the cheapest mobile assets.
- 6. This could be used to infer that males generally engaged in somewhat larger informal sector activities almost equally between "own account worker" and "small scale enterprises" were relatively greater in urban areas. "Own account worker" activity was the largest in size under "mobile" while others two (micro-enterprises and small scale enterprises) of "size classification" were found to be greater under "fixed" activities. Similarly, "own account worker" emphasis the services activities followed by "purchase and sales" but "micro enterprises" seemed to be highly diversified in all the activities.
- 7. Literacy level of the respondents' average household literacy level and average dependency ratio were found to be significantly different between rural – urban locations but it was not significantly different between two urban locations (U<sub>1</sub> and U<sub>2</sub>). Similarly, literacy level of the respondents between sexes was not found significantly different but household literacy level and dependency ratios were found to be significantly different.
- 8. These indicators regarding to economic status in terms of average household size, household dependency ratio, temporary burden of unemployment value of per head household employment ratio; average household literacy level and average household property showed that developed areas and females were relatively better than less developed area and males in family background.
- 9. Correlation coefficient between two sources of income, that is informal sector and other sources, either in household or in per capita terms, showed that it was not significantly different, in income changing direction. In case of "family member employed "and" "wage earner employed" the correlation coefficient was found negatively significant. It meant the two sources of earnings were the substitutes to allocate the resources to each

other for earning purpose. Household earning from informal sector (either per capita basis of household income) was found to be greater than other sources and it was found significantly different in any type of classification.

- 10. The informal sector activities of the respondents were measured on the basis of daily earning, daily investment, average literacy level of the respondents, average working time (average monthly working days and average working hours per day) etc. These showed that developed areas and females were higher in both the earning and investment but in terms of working time, it was not found to be significantly different. Similarly these values were higher for females and urban locations. However, the rate of earning and the rate of investment in "fixed" was found to be greater than "mobile" or "semi-mobile" and in other, "purchase, production and sales" activities was found to be greater than "services". Investment rate and rate of return in "family member employed" was found greater than "self employed". Investment rate and return rate both were found to be the largest, though its sample size was very less than in each of the previous types in "family unpaid and wage earner employed" under this classification.
- 11. Informal earning functions showed that all models were estimated significant under "industrial classification". In most of the cases literacy level of the respondents was found to be significant determinant. Due to smallness of the informal sector activities, supply of labour and investment were not-significant and these cases had been noticed in "mobile" or "services" or "self-employed" activities but "family unpaid and wage earner employed", purchase, productions sales", "fixed activities" the two explanatory variables (supply of labour and investment) were found to be significant. High literacy level can help in better management so one can earn more. It was significant in most of the cases. Therefore, we can infer that through longer and better schooling, the prospect of employment even in the informal sector can be better with higher expected returns.

- 12. Distribution of the respondents on the per capita income basis in different locations was found significantly different but in case of sex it was not significantly different.
- 13. If we excluded the informal sector earning from the household earning, the size of the poor would be nearly 94 percent and if we include the informal sector earning to the household earning the size of the poor get reduced sizeably upto 13 percent. On the other hand, size of the high earning group was 21 percent. However, if we deducted the informal sector earning from the total household earning its size would approach to zero (0.2 percent); This result justifies the significance of informal sector earning in the household income under informal sector activities in the Chitwan district of Nepal.
- 14. The working time in terms of hours and days in urban areas was found to be higher than the rural locations with meaningful differences. It showed that the informal sector activities were expanding more in urban locations than rural. Similarly, those females who were involved in different informal sector activities in terms of hours and days showed that they were found to be better than males in terms of earnings.
- 15. Most of the business activities were affected by changing seasons. The urban respondents and those who were females were realizing lower effects during changing seasons. Some occupations were found to be highly affected during changing seasons, and most of them were either "services sector" or "mobile activities".
- 16. The indicators in terms of average household size, household dependency ratio, temporary unemployed burden, per head employed value of a household, average household literacy level and average household property showed that Brahman/ Chhetri was found to be better in castes though it was not significantly different between castes.
- 17. Daily informal sector earning functions under different castes and occupations were derived on the basis of three explanatory variables

(supply of labour, daily investment and literacy level of the respondents). It was estimated that literacy level of the respondent for each caste was significantly different. In income earning function, the supply of labour was significant in "Brahman/ Chhetri", "vaisya", and "other" while investment was significant for "vaisya" only.

18. The involvement of Micro-Finance Programme (MFP) between sex as well as two urban locations was not found significantly different but it was significantly different in rural--urban locations as well as "mobility"

Based upon the above conclusions, we can derive the following inferences:

- 1. Informal sector activities in Chitan district of Nepal is highly diversified and it seems to employ larger number of low income people.
- In the informal sector activities people from all social groups were found to be engaged.
- 3. It is distributed between rural and urban locations however, it seems to have larger expansion in urban location.
- 4. Both males and females are found to be engaged in informal sector activities. However, males are more dominant in terms of share in the total persons engaged in the informal sector activities.
- 5. Informal sector activities are highly diversified in terms of nature of employment, size, mobility, investment, seasonal relevance, participation of males and females, age groups, and various other family backgrounds.
- 6. It has been estimated that informal sector activities play a great role in poverty alleviation, of the persons engaged in this activities.
- 7. Similarly informal sector activities play critical role in employment generation.
- However, the earnings of the participation in informal sector activities seem to get influenced to the largest extent by the level of education as compared the level of investment and labour supply.

- Level of investment and supply of labour also affects the earning level of the respondents but these are relatively less effective in promoting earnings of the respondents.
- 10. Therefore, we can infer that even in the informal sector activities, role of human capital promoting earnings has been immense.

#### 9.2 Policy Suggestions

Based upon the analysis of previous various chapters it is concluded that the informal sector is one of the important sector of the economy. Most of the countries in the world have taken commitment with the ILO that the right of every one to conditions of freedom and dignity, of economic security and equal opportunity' these are limited only in slogan. Presently it have been needed that the government or related institutions of every country should be address the magnitude of workers and enterprises who are often not recognized and protected under legal and regulatory frameworks and who are characterized by a high degree of vulnerability and poverty, and to readdress. Here, the following suggestions, which are based on the findings and have the policy implications, are made:

- 1. In the survey it was found that average training time of the total employed was 0.257 year (3 months). Two-third (66.7 percent) of the total employed was untrained. Among those trained employed whose training time period was more than one year were only 5 percent. Vocational training targeting employment in the informal sector should enhance the skill and business start up capacities of people working in the informal sector. Vocational training should be observed as an important component for the development of the informal sector and the growth of the local economy with the adjustment of the employment structure. It should be listed high on the government agenda.
- Planning of employment training for the informal sector should be integrated in the nation's comprehensive vocational training plan. Task forces should be set up to conduct studies or the current situation of

workers in the informal sector. Localities should formulate training programs that effectively respond to market demand and employment priorities. These programs should then be integrated into local comprehensive vocational training plans and linked to the national plans.

- 3. Marketing is another most important factor that needs to be given priority. The informal sector in rural area can't fare well until the farmers receive adequate price for their products. The government should see to it that the farmers are paid the price they deserve which directly or indirectly effect to the informal sector. Therefore, it is expected from the government to fix minimum support price for the major agricultural products as in the neighbouring country India. If the agricultural sector is modernized by providing all such facilities in required quantity the wage rates of the agricultural workers and also informal sector workers and the standard of living of the both types of workers without affecting the interest of the farmers and this would ultimately result in social empowerment.
- 4. In most of occupations and in rural areas, women are dominated by men. Of the total sample employed, males were 301(72 percent) and females were 117(28 percent) i.e., 2.57:1 in ratio. Hence, the women should be encouraged to play a more important role in the informal sector. They should be given adequate support to run micro – enterprise, which might run either in a proprietorship or partnership form.
- 5. Legislation is an important instrument to address the all important issue of recognition and protection for workers and employers in the informal sector. All workers, irrespective of employment status and place of work, should be able to enjoy exercise and defend their rights as provided for in the ILO Declaration on Fundamental Principles and Right at work and its Follow Up and the Core labour standards. To ensure that labour legislation affords appropriate protection for all

workers, government should be encouraged to review how employment relationships have been evolving and to identify and adequately protect all workers. it should be practicable.

- 6. The informal sector provides an environment that allows child labour to thrive. Child labour is a key component of the informal sector. It undermines strategies for employment creation and poverty reduction, as well as education and training programs and the development prospects of countries. Child labour also exists in industrialized countries. The eradication child labour requires poverty reduction. Good governance, effective enforcement improved access to universal education and social protection. It requires commitment and cooperation between the social partners as part of the promotion of fundamental rights and the program to transfer job from the informal to the economic mainstream. Key to the success of abolishing child labour is the creation of more quality jobs for adults. Then elimination of child labour should be a priority goal.
- 7. It is the responsibility of governments to provide an enabling framework at national and local levels to support representational right. National legislation must guarantee and defend the freedom of all workers and employers irrespective of where and how they work, to form and join organizations of their own choosing without fear of reprisal or intimidation to the recognition of legitimate, democratic accessible, transparent and accountable membership based organizations of workers and employers in the informal sector must be removed, so that they are able to participate social dialogue structures and processes public authorities should include such organizations in public policy debts, and provides them access to the services and infrastructure they need to operate effectively and efficiently and protect them from harassment or unjustified or discriminately eviction.
- 8. The workers might form groups, co-operatives or associations with the purpose of achieving objectives that cannot achieved individually.

Inputs like raw materials, tools, equipments and other commodities could be available comparatively at a cheaper price if bought in bulk through the groups, co-operatives or associations. Similarly, storage, transport and marketing of products become easy and also their bargaining power increases when it is done through the groups, co-operatives or associations. It is only in groups, co-operatives or associations that even an individual becomes important. "One finger cannot make a fist" is an African proverb support the themes of the informal sector activities. Thus, the informal sector workers cannot be effective until they form their own groups, co-operatives or associations towards the fulfillment of their objectives.

- 9. Micro Finance Program is one of the financial sources in informal sector. Out of total respondent only 45.7 percent were in Micro Finance Program. Higher percent of female among the females and lower percent of males among males were involved in Micro Finance Program. Among the rural employed higher percent, among the urban employed lower percent and in absolute term, larger number of males than females was in Micro Finance Program. Thus, it concludes that the informal sector workers should be encouraged to make savings for attractive schemes at Micro Finance Program should be floated by the Banks, NGOs, and other agencies.
- 10. There is not a single program run up to now which is directly related to informal sector workers. So, a special cell might be created in the Ministry of Labour to address the problems of the informal sector workers. The Ministry could also co-ordinate certain activities of the bilateral and multilateral donors, NGOs and INGOs for launching programmes aimed at promoting the increases of the informal sector workers. The importance of organizations, particularly INGOs, has been well recognized as a third dimension as a triangular form of government, business and civil society. launch

- 11. Social and economic insecurity in the informal sector is a global phenomenon; this is the weakest link in Nepal's informal sector. Moreover, the study period was in emergency period in Nepal. So it became mostly weakest condition in business activities. Some common security measures include senior citizen allowance, health care, economic and social assistance, support to micro - credit schemes and poverty reduction activities but these measures are not sufficient which is in directly related to informal sector. Even NGO's supporting poor informal workers do not have social and economic security as a direct objective. Employment security and social security or social protection are two sides of the same coin. Each cannot be attained without the other. If informal workers are to be strengthened and supported in their struggle against poverty, then work security in essential. Without regular work and income, they cannot feed themselves and their families nor have any measure of health security, insurance coverage or housing. At the same time, work security can never be achieved without meeting the social protection needs of informal workers.
- Government must define, develop strategy to promote village tourism.
  It is one of the highest earning informal sector activity in the context of Nepal, to enhance informal sector employment and to reduce widespread poverty and regional inequality.
- 13. In developed or developing countries the traditional policy package is too generic, lacks prioritization and offers no advice to policy makers for the specific circumstances in their countries. More alarmingly we show, through a novel review of the theoretical literature, that under certain country-specific conditions the traditional policy package is counterproductive in reducing informal economic activities. A more differentiated informal economic activities policy framework is needed that remedies these deficiencies. We propose a policy advice framework that helps to government select country-specific informal

economic activities strategies and guides them towards a prioritized and detailed informal economic activities policy formulation. Based on a unique review of economic and sociological models of informal behavior we show first that countries have a much larger informal economic activities policy set than is commonly recognized in the literature. We also find that any country specific factors, corruption and inequality, Nepal is not a exception on these issues, are essential preconditions for policy makers to consider in their policy design to ensure effective policies towards informal economic activities. On this basis we can develop an informal economic activities strategy framework that allows us to classify any country into one of four case types. For each case type we formulate an informal economic strategies and governance reform, Anti corruption reform, Anti inequality reform, Sanction oriented reform. Each strategy differs in the policy priority and thereby guides policy/makers in focusing their reformed attention and resources. The strategic policy implications derived from the framework challenge the generic policy recommendations of previous research. We also find that there exist important synergies between policy clusters, e.g., both anti corruption efforts and measures to increase the benefits of formal economic activity benefit from a functioning court system. This is an important point because it increases the flexibility to adopt country-specific solutions and devise consistent policy programs.

14. The informal sector is comprised of enterprises/works with a growing market demand that reflects high income elasticity of demand (e.g., tourism services) as the dynamic/modern informal sector and those with low-income elasticity of demand (e.g., rickshaw services) as a marginal/survivalist informal sector. These two groups of informal sector activities have different problems in different situations and can not include in a single policy. So, the government should select different policies according to income earning capacity, location, security condition, etc., of the informal sector.

- 15. Any policy will be effective when the exact information about the problems of the informal sector is available. The exact figure of non-farm economic activities in urban/rural areas in Nepal is not available. Due to the lack of data about informal sector, any policy may not effectively be useful. Informal sector surveys from government side covering nation-wise should be taken and it should be regular as far as possible before applying the policies of informal sectors.
- 16. The government should play a positive role to organize the informal sector workers in their occupations. An important objective for both employers' and workers' organizations is to extend representation throughout the informal sector. Workers and employers in informal activities may wish to join existing trade unions and employers' organizations or they may want to form their own. employers' and workers' organizations which play a critical role in either strategy; extending membership and services to employers and workers in the informal sector; encouraging and supporting the creation and development of new membership making accessible, transparent, accountable democratically and managing representative organizations, including bringing them into social dialogue processes.
- 17. Informal sector is not an isolated sector; it has interdependence with the formal sector. That's why it is not only surviving, but also increasing day by day. The word 'informal' has already demanded that government should change it into 'formal 'form.
- 18. The government should take an initiation first. Country like Nepal, where more than 90 per cent labour force is in informal sector, institutional development of labour force can not expect without bringing it into formal boundary. That's why, there should be appropriate legal provision to cover all informal sector activities.
- 19. There should be sufficient ground for recognition of Craft Unionism. To challenge hidden condition of labour force in informal sector, there

should be proper provisions to cover all informal sector activities including self-employed workers inside trade union movement.

 Informal sector can be protected by proper package of social security. Till now, we do not have such scheme. Thus, we should urgently take steps towards this direction.

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### **Annexure 3**



### Annexure 4



#### **Questionnaire for Sample Survey**

Research Topic –' A STUDY OF EMPLOYMENT AND INCOME GENERATION IN INFORMAL SECTOR OF CHITWAN DISTRICT, NEPAL'

#### A.Household Information

- 1. Name of VDC ( ) / Municipality( )----- 2. Ward/Sub ward-----
- 3 Tole / Location ------ 4. Nationality ------
- 5. Name of household head -----
- 6 Religion ------ 7.Relation of respondent with family head----
- 8. Name of respondent -----
- 9. House: Rented () / Own () and it is Pakki () / Kachhi() / Semi- Pakki ()

)

- 10. Whether Electricity: Yes ( ) / No (
- 11. Property in NRs------
- 12. Animals ------
- 13. Household Details Information

S.N.	Family members	Age	Sex		al Ig		Occu	pation	Income
	according to the			atus	ssiona trainir	evel		y	
	relation with			l St	ofe ) gr	sy le	Z	dar	
	respondent			ırita	y pr ainir	erac	mai	con	
				Ma	An Tra tim	Lite	Pri	Se	
1									
2									
3									
4									

Total income of your household (including all resources) NRs------

### **B.** Individual Information

1. Occupational information

- i) Period of present residence in Chitwan District(in years)------
- ii) Whether it is your house: Yes ( ) / No ( ) iii) Current occupation (name)-----
- iv) Whether it is: Primary () or Secondary () v) Another occupation (name)-----
- vi) Previous occupation (before current occupation if any)------
- vii) Why did you change previous occupation? -----
- viii) Working duration of current occupation (in years)------
- ix) Location of present occupation: Moving ( ) / Semi-moving ( ) / Fixed ( )

- x) Types of occupation: Services () / Purchase and Sells goods () / Production and sales ()
- xi) Do you get any help from family member(s) in occupation? If yes how? ---
- xii) Occupational Details Information

a) Moving	b) Semi-Moving	c) Fixed
1.Foot	[Sells goods/ services in a fixed place	1.Rural()
<ol> <li>Foot         <ol> <li>i) On head ()</li> <li>ii) on Shoulder ()</li> <li>iii) on back ()</li> <li>Cycling()</li> <li>Cart ()</li> <li>Small tractor()</li> <li>Rickshaw ()</li> <li>Other specific</li> </ol> </li> </ol>	[Sells goods/ services in a fixed place (i.e., it may be the public place, rented or without rented or 'Hat Bazaar' etc each day it may be same or different places) and return back with goods in own residence] 1.Average distance between residence {rural()/urban()} and working place {rural()/urban()}Km.	1.Rural ( ) /Urban( ) 2.Rented ( ) / own ( ) 1.Average distance between residence {rural
if you used vehicle,is it your own ( ) or rented ( )	<ol> <li>Rental () or own () vehicle.</li> <li>Name of your vehicle</li> <li>If rented transportation cost of each day Rs</li> <li>If Bus etc transportation cost of each day Rs</li> <li>If other means specific with cost NRs</li> </ol>	() / urban () } and working place { rural () / urban ()} Km.

# 2. Working Situation

Season	Summer (March, Apr., May& first 15 days of June)	Rainy (Last 15 days of June, July, Aug. & first 15 days of Sep)	Autumn (Last 15 days of Sep., Oct., & first 15 days of Nov)	Winter (Last 15 days of Nov, Dec, Jan &
				Feb)
Average Monthly Working days				
Highest Working days and with name of month				
Lowest Working days and with name of month				
Average working hour per day				
Average working hour per day from family member in your occupation (if any)				

If monthly working average days in each season were less than 15 days, what did you do in other remaining days ?

i) Unemployed ()
ii) Specific ------ income earning work if any
iii) Household work ()
iv) Other specific-----If you worked in other occupation in this mean time, this type of work will be available in each year same way?-----Is this your significant income earning work? -----If yes, why do not do you this work in other season too? ------

3. Use of your out-put (yearly)

Name of product or services	Production Time/unit	Total production (%)	Household Consumption (%)	Selling Amount (%)

4. Do you need any materials/equipment/goods in your occupation? Yes ( ) / No ( )

If yes, sources

			Amount (	in percent)		
٥v	wn					
Ρι	ırchase					
5.	If you purchased, Sources of materials/equipment/goods:					
	i) Available in s	ame mark	ket ()	ii) Available in same	e district (	)
	iii)Available wit	hin countr	у ()	iv) Imported	(	)
6.	Marketing: -					
	How do you p market to resa	ourchase le?	the goods/	equipments/ raw ma	aterials etc fr	om the
Pro	cess	Always		Usually	Sometimes	
My	– self					
Far	nily					
Frie	ends					
Oth	er Specific					
	How do usually p	urchase –	whole (	)/ retail ( ).		
-	Transportation co	st of mark	ing less (	) costly ( ) more	costly ( )	
7.	Do you have to	pay rent	(residence) (	? No ( ) / if Yes (i	n NRs)	
	if have to pay	rent ( work	king place ) p	oer day()/ week() / n	nonth( ) / year	·ly( )
	in NRs					

8. If it is public place or road side and have to pay rent:

Name of Institution	Period of payment	Rate or amount
<ol> <li>Registration of occupation</li> <li>i) No. ( ) ii) Not nec</li> </ol>	cessary ( ) iii)If regis	tered (
Name of Institution	Term of payment	Amount

### 10. Tax i) No ( ) ii) have to pay and receive bill( ) no bill ( )

Name of Institution	Term of payment	Amount

## 11. Employment basis

a) What type of occupation is this ?

i) Self-employed ( ) ii) Family members employed ( )

- iii) Employed of family members and others learners as unpaid workers) ( )
- iv) Employed of family members and others are job employed ( )
- v) Employed of family members and others are learners and job workers ( )
- vi) Other specific (if any) ------
- b) After taking training, some of them are self-employed- Yes ( ) / No ( )
- c) Is this occupation help to self-employed or employees those who are untrained?

Yes ( )/ No ( ) If yes, how -----

- 12. Income
  - i) Income earning basis from various activities

a) Time ( ) b)Distance ( ) c)Unit ( )

- d)Material cost and service charge ( )
- ii) Employment information

Types of employment	No. of employed	Total no of employed	Income earning period (day/month/ others)	Total earning (NRs)
Self- employed				
Family member(s)				
Unpaid other(s)				
Wage employed				

## iii) investment and return

Items	Period of reinvestment	Amount Of Investment	Profit of per unit or receive (Per unit or per head from services)	Daily sold units Or No of persons/ units	Total profit Or Total daily Earning

iv) Other sources of your income-----

v) Income from other sources (if any ) NRs------

vi) In a period of year:

	Name of month (s)	Amount (NRs)
Highest earning		
Lowest earning		

### 13. Investment

i) Initial investment in occupation

Sources	Amount of investment (in NRs)
1.Own	
2. Loan	
Total	

ii)	Loan

Sources of loan	Amount	Rate of Interest	Payment term
	(NRs)	(%)	
i) Friend(s)			
ii) Relatives			
iii) Financial institution			
1			
2			
3			

Main purpose of loan-----

14. If there is any Government ,NGOs, INGOs, Social Group, which helps in your occupation :

Name of institution	Govt or Non-Govt.	Types of facility	Amount/others
1.			
2.			
3.			

15 o you involve in any micro finance programme (small saving group in collection of fund for self utilization)? Yes ( ) / No ( ) If yes, what is your main objective of involvement? ......

Rate Name of Period of Period of Saving Amount of Period of of programme involvement loan if any installment interest rate saving (%) (NRs) (NRs)

16. Position and expectation of your occupation

Past	Present	Future

- 17. How do you get any support from your family members?i) Always ( ) ii) Usually ( ) iii) Sometimes ( ) iv) Never (
- i) Always () ii) Usually () iii) Sometimes () iv) Never ()
  18. How much assets do you generate with the help of present occupation? (in NRs)------

### C. Problems and Suggestions

1. Do you feel any harassment from? Yes ( ) or No ( ) and if Yes from whom:

i) Police () ii) Public () iii) VDC() /Municipality () iv) Others ()

- 3. Do you feel satisfied with your current occupation? If no why------
- 4. What are yours problems that you are facing? ------
- 5. How can be it solved? ------
- 6. Further suggestions-----

# Annexure 6

# **GLOSSARY OF TERMS**

Terms	Details
Ardha Pakki house	It belongs to the category where either the walls or the roof is constructed with permanent materials and the other is constructed with temporary materials.
Castes	Classification of caste based on Hindu religious and in other castes (Sikh/Punjabi, Bengali, Marwari, Jain etc.)
Child labour	An employee in a job whose age is 5 - 14 years
Construction places	Business activity runs in any construction places (e.g., work related to Stone and brick peace rate work or wage earning work)
Dependency ratio	Number of persons below 15 years and above 59 years divided by number of persons of 15-59 years in a family.
Economically Active population	Population of aged 15-59 years
Economically inactive or dependent population	Population of aged below 15 and more than 59 years
Family member and other unpaid employed	A business run by family members and other unpaid others
Family member employed	A business operates by family members
Family member, unpaid and wage earner employed	In this category a business run by family members, some others unpaid members and some wage earners.
Fixed Activity	A person Always does his or her business activity in a fixed place that may be public place, rented , own house or friend/relatives
Friend or relative	A business activity runs under friend's or relative's house or in theirs land or compound or ownership.
Higher age	An employee in a job whose age is greater than 44 years
Household	Household refers to a single person living alone or a group of persons who may or may not be blood relation with household head, usually living in a

Terms	Details
	particular housing unit and sharing meal with common resources The member of household are defined on the basis of arrangement of meals and other participation activities do together though they live in separate places as a temporary basis to do a job even though they may have no blood relation with the household head.
Household literacy level	Total number of formal education level (i.e., no schooling years) of the literate members of the household divided by number of literate persons of the family.
Illiterate	A person who is unable to read and write.
Imported from Abroad	If the marketing activity coverage not only within country but related to from abroad e.g., ready made cloth in large amount from India or China
Kachhi house	It makes using non-durable materials like wooden flakes, bamboo, straws/thatch, mud, unbaked bricks, etc., in both walls and roof.
Literacy level	Formal education level or equivalent to total schooling time (in years) spends on reading and writing
Literate	A person who can read and write.
Living period	Continuously living years either permanently or temporary
Micro Finance Programs	MFP is defined as small saving group regularly collecting of funds for self employed and business purpose both in rural and urban areas in the name of ' rural saving group', 'urban saving group' ,'women saving group' etc which are directly or indirectly related to informal sector activity.
Micro-enterprises	The informal sector is comprised of 2-4 persons units.
Mobile Activity	A person does his or her business activity by moving in different places
Occupation	Refers to the type of work done during the reference period by the person employed irrespective of the industry or status in the employment of the person.

Terms	Details
Others occupations	Keep them under this category due to small in size, the other occupations are: Umbrella, light etc. repairing work; work in construction related to Stone and brick; Firewood collecting workers; Driving; Water-supply work; ,Bamboo , Babbio, etc related product, broker activities'.
Own account worker	The informal sector is comprised of one person units.
Own house compound	A business activity runs within own house compound.
Pakki house	it refers to that with both walls and roof made of permanent construction material like cement, bonded brick, concrete, stone slate, tile, galvanized sheet etc.
Per head employed ratio	Number of employed divided by family size
Prime working age	An employee in a job whose age is 25-44 years
Production –sales activity	A person engaged in production activity for business purpose and s/he sales his or her products
Property	The total wealth both in cash and kind are refer as property and it is expressed in monetary value (NRs.)
Public places	Business suns in public places it may be mobile, semi-mobile or fixed in nature.
Purchase-production- sales activity	A person purchases goods for business purpose in form of raw material or intermediate product or final consumption form etc. then s/he sales to consumers or producers by changing shape.
Purchase-sales activity	A person purchases goods for business purpose in form of raw material or intermediate product or final consumption form etc. then s/he sales to consumers or producers without changing shape.
Reference period	It belongs to between April 2005 to june2005 (around 15 <sup>th</sup> Chaitra 2061 BS to around 15 <sup>th</sup> Ashad 2062 BS.) i.e., three month period and one year past activity related to the occupation of the respondent was also taken.
Rented premises	A business activity runs under rented premises
Rural area (VDC)	The area which is inhabited by villagers having

Terms	Details
	mostly agricultural activities
Self-employed	A business unit which is related to single person and employed in own initiation
Self-employed and wage earner employed	Under this category a business run by single person in own initiation and others are wage earners
Semi-mobile Activity	A person sells goods/ services in a fixed place (i.e., it may be the public place, rented or without rented or 'Hat Bazaar' etc in each day it may be same or different places for next day) and return back with goods in own residence.
Services	income generating by physical or mental work without own invest or very little invest but providing services to the people (a rickshaw pulling work, Thela pushing work, hair dressing work, shoes polishing work etc)
Size classification	The number of employees in an informal sector unit is comprised known as 'size classification' and the types are: 'Own account worker', 'micro- enterprises', and 'small scale enterprises'
Small Seale Enterprises	The informal sector is comprised of 5-9 persons units.
Temporary unemployment burden ratio	Number of unemployed persons divided by number of employed in a family
Urban area (Municipality)	The area in which is to have at least 10,000 inhabitants where schools, campuses, government offices, legal courts, marketing facilities, production and distribution activities etc are located.
Wage earner employed	A business runs by wage earners only
Youth labour	An employee in a job whose age is 15 - 24 years