

# **Nepal 2009 Enterprise Survey: Survey Description And Technical Report**

## **A. Introduction**

This document provides information on the firm-level data collected in Nepal from 8 March 2009 to 15 June 2009 as part of the Nepal 2009 Enterprise survey, an initiative of the World Bank's Enterprise Analysis Unit ([www.enterprisesurveys.com](http://www.enterprisesurveys.com)). In addition to the Enterprise survey, an Employee Survey and Informal Survey were simultaneously conducted in Nepal to capture perspectives on both the work environment from employees and the informal sector.

An Enterprise Survey is a firm-level survey of a representative sample of the manufacturing and services sectors in an economy. The surveys cover a broad range of business-environment topics including access to finance, corruption, infrastructure, crime, competition, and performance measures. Firm-level datasets, the investment climate indicators derived from them, as well as research papers are available on the website. Objective data on the business environment as experienced by firms, performance measures, firm characteristics, and perceptions regarding obstacles to growth are collected via face-to-face interviews. An Informal Survey is similar to an Enterprise Survey but has fewer questions and the questions are more tailored to researching the informal sector in a country.

This report describes the sampling design of the Nepal survey, the structure of the dataset and additional information that may be useful when using the data, including information on non-response rates, the calculation of sample weights and country-specific factors that may have affected survey implementation.

The survey was conducted in partnership with the private contractor Solutions Consultant Pvt. Ltd. located in Kathmandu, Nepal. The response rate for the Enterprise survey was 95%.

## **B. Survey Target Population**

The Enterprise Survey is meant to be representative of the manufacturing and services sectors of the economy. It comprises: all manufacturing sectors according to the ISIC Revision 3.1 group classification (group D), construction sector (group F), services sector (groups G and H), transport, storage, and communications sector (group I), and sub-sector 72 which is IT firms. Note that this population definition excludes the following sectors: financial intermediation (group J), real estate and renting activities (group K, except sub-sector 72 which is IT firms), and all public or utilities-sectors. Please refer to the United Nations Statistics Division website (<http://unstats.un.org/unsd/cr/registry/regcst.asp?Cl=17>) for the full classification list.

For Nepal, the sectors included in the sample by two-digit ISIC code are as follows:

Manufacturing: 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37  
Services: 45, 50, 51, 52, 55, 60, 61, 62, 63, 64, 72

The Enterprise Survey for Nepal targeted 480 registered establishments: 120 establishments with less than 5 employees and 360 establishments with 5 or more employees. The Employee Survey

targeted 360 employees. The Informal Survey targeted 120 unregistered firms across a range of sectors and geographic regions.

In the Enterprise Surveys methodology, the requirements for registration are defined on a country-by-country basis using the information collected by Doing Business and information from the in-country contractors. For Nepal, registered firms were defined as being registered with the Inland Revenue Department, i.e. having a PAN/VAT number.

### **C. Sampling for Registered/Unregistered Establishments**

The survey sample for establishments in Nepal was selected using stratified random sampling with replacement, following the methodology explained in the *Sampling Manual*.<sup>1</sup> Three levels of stratification were used in the Nepal sample: firm sector, firm size, and geographic region.

Industry stratification was designed at three levels: the universe was stratified into manufacturing, retail, and other services industries. Other services were further divided into tourism and non-tourism as the World Bank wanted to oversample tourism firms. The initial sample design for the n=480 Enterprise Survey had a target of 180 interviews in manufacturing, 150 retail, 75 other services – tourism, and 75 interviews in other services – non-tourism.

Size stratification was defined following the standardized definition used for the Enterprise Surveys: micro (less than 5 employees), small (5 to 19 employees), medium (20 to 99 employees), and large (100 or more employees). 120 interviews were targeted for the micro survey. 360 interviews were targeted for the “traditional” Enterprise Survey (small, medium, and large firms) with an oversampling of large firms given the high prevalence of micro and small firms in Nepal.

Regional stratification was defined in terms of the geographic regions with the main cities of economic activity in the country. Western Nepal included Butwal, Dhangadhi, Nepalgunj, and Pokhara; Central Nepal included Banepa, Bhaktapur, Bharatpur, Birgunj, Hetauda, Kathmandu, Lalitpur, and Simara; Eastern Nepal included Bhadrapur, Biratnagar, and Itahari.

120 interviews were targeted and a range of available business sectors was desired for the Informal Survey.

### **D. Sampling implementation**

Given the stratified design, sample frames containing a complete and updated list of establishments as well as information on all stratification variables (firm size, industry, and region) are required to draw the sample for the Enterprise Surveys.

Initially a sample frame was sought from the Government of Nepal and from appropriate trade associations; but the lists that were obtained were deemed incomplete and potentially out of date. In consultation with the contractor, the World Bank decided to undertake block enumeration, i.e.

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<sup>1</sup> The complete text of the *Sampling Manual* can be found at [http://www.enterprisesurveys.org/documents/Sampling\\_Note.pdf](http://www.enterprisesurveys.org/documents/Sampling_Note.pdf)

the contractor would physically create a list of establishments from which to sample from. In total, the contractor enumerated 6,755 establishments for the survey fieldwork (the block enumeration elicited firms for both the Enterprise Survey and the Informal Survey).

6,652 firms were enumerated in the three regions in an initial stage- Appendix D provides the contractor's block enumeration report. In addition, in a second stage of block enumeration, 103 manufacturing firms were enumerated in a second stage in two industrial estates in the Central region- Simara and Hetauda. 92 out of 103 of these firms were medium or large sized. It was decided that these two industrial estates should be enumerated since due to the excessive load shedding, manufacturing firms, especially larger ones, had been shutting down, and so some additional manufacturing firm listings were needed in order to meet survey targets.

As described in Appendix D, it was not feasible to fully enumerate all the blocks/clusters available in large cities such as Kathmandu. So clusters and blocks within selected clusters, all chosen at random, were enumerated. Hence the 6,652 firms are weighted upwards by the ratio of unenumerated to enumerated area for each city. And so the universe estimates from the resulting sample frame are shown below. The original sample design, with specific targets for these strata, is included in Appendix A. Appendix B provides the universe estimates including the adjusted universe estimates which were used for the purposes of creating weights. The universe counts were adjusted since there were some discrepancies in firm size classification between block enumeration and actual survey response information. For each region x firm sector, adjustment factors were applied based on the observed discrepancies. For example, the original universe estimates has 9,398 small firms but after adjustment, the estimate is 11,235 small firms.

#### **Nepal Universe Estimates: Based on Block Enumeration Counts**

Region	Size	Manuf	Retail	Other	Other-Tourism	Total
East	Micro	273	4058	1009	323	5661
	Small	218	309	362	143	1031
	Medium	88	5	58	0	151
	Large	33	0	0	0	33
		612	4371	1429	466	6877
Central	Micro	1759	13083	2461	783	18085
	Small	1372	2006	1964	868	6211
	Medium	263	138	487	198	1086
	Large	99	12	1	41	153
		3492	15239	4913	1891	25535
West	Micro	352	4225	1089	184	5850
	Small	606	341	618	591	2156
	Medium	74	0	67	50	192
	Large	21	0	0	0	21
		1053	4566	1774	826	8219
Grand Total		5157	24176	8115	3182	40631

Breaking down by industry, the following numbers of establishments were surveyed:

### Achieved Sample – Enterprise Survey

Region	Size	Manuf	Retail	Other	Other-Tourism	Total
East	Micro	11	7	9	1	28
	Small	0	10	7	0	17
	Medium	6	0	4	0	10
	Large	4	1	0	0	5
		21	18	20	1	60
Central	Micro	31	17	7	3	58
	Small	36	73	13	23	145
	Medium	40	11	24	29	104
	Large	12	2	1	6	21
		119	103	45	61	328
West	Micro	7	13	10	2	32
	Small	10	12	2	6	30
	Medium	24	0	0	7	31
	Large	5	0	0	0	5
		46	25	12	15	98
Grand Total		186	146	77	77	486

### E. Database Structure

All variables in the database are named using, first, the letter of each section and, second, the number of the variable within the section, i.e. *a1* denotes section A, question 1. Variable names preceded by a prefix “N” indicate questions specific to Nepal that are not included in the global roll-out questionnaire; these questions may not have been asked in Enterprise Surveys conducted in countries in other regions. All other variables are global and are present in all country surveys conducted throughout the world. All variables are numeric with the exception of those variables with an “x” at the end of their names. The suffix “x” indicates that the variable is alpha-numeric.

The variable *idstd* uniquely identifies each establishment at the global level.

The variables *a2* (sampling region), *a6b* (sampling establishment’s size), and *a4b* (sampling sector) contain the establishment’s classification into the strata chosen for each country using information from the sample frame. These variables generate the strata cells for each industry/region/size combination. The variables containing the sample frame information are included in the data set for researchers who may want to further investigate statistical features of the survey and the effect of the survey design on their results.

-*a2* is the variable describing the sampling regions

-*a6b*: coded using the definition for small, medium, and large establishments as discussed above.

-*a4b*: coded using ISIC codes for the industries that comprise the manufacturing (1), retail (52), and other services categories (2), and used in the stratification.

Variables *a8* to *a11* contain additional information that was collected in the screening phase.

The main questionnaire contains variables for location (*a3x*), industry (*d1a2*), and number of employees (*l1*, *l6* and *l8*) that more accurately reflect the characteristics of establishments than the information provided on these variables in the sample frame or the screener.

A distinction should be made between the variable *a4b* and *d1a2* (*industry expressed as ISIC rev. 3.1 code*). The former gives the establishment's classification into industry-strata based on information available from the sample frame, whereas variable *d1a2* indicates the actual ISIC code of the main output of the establishment as answered by the interviewee. This variable is probably the most accurate variable with which to classify establishments by activity.

Variable *a3x* indicates the actual location of the establishment. There may be divergences between the location in the sampling frame and the actual location, as establishments may be listed in one place on the sample frame but the actual physical location is in another place.

Variables *l1*, *l6* and *l8* provide a more accurate measure of employment and account for both permanent and temporary employment. Special efforts were made to make sure that this information was not missing for most establishments.

## **F. Sample Eligibility and Universe Estimates**

Special care is given to the correct computation of universe estimates and weights in the Enterprise Surveys. Considering the varying quality of sample frames across countries, it is important to accurately adjust the universe totals within each region/industry/size stratum to account for the presence of ineligible units in the sampling frame. Information on ineligible firms in the sample frame is used to scale down the universe estimate for each cell by the observed proportion of ineligible units within the cell.

For Nepal, since block enumeration was conducted by the same contractor that was used to field the survey, there were no discrepancies regarding geographic region or business sector in terms of the information elicited during block enumeration and the information obtained from the Enterprise Survey itself. However, there were discrepancies in firm size between what was elicited during block enumeration and what was obtained from the survey. As a result, adjustment factors were multiplied to each cell in the original universe estimates.

Once accurate estimate of the universe cells were made, weights were computed using the number of completed interviews for each cell.

## **G. Weights**

Since the sampling design was stratified and employed differential sampling of the strata, individual observations should be properly weighted when making inferences about the population. Under stratified random sampling, unweighted estimates are biased unless sample sizes are proportional to the size of each stratum. With stratification the probability of selection of each unit is, in general, not the same. Consequently, individual observations must be weighted by the inverse of their probability of selection (probability weights or *pa* in Stata.)<sup>2</sup>

Weights for each cell were computed: universe cell estimates are divided by the achieved cell counts. Appendix C shows the cell weights for registered establishments in Nepal.

## H. Non-response

The Enterprise Surveys, along with all other surveys, suffer from both survey non-response and item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. Different strategies were used to address these issues. The overall survey response rate for the Nepal Enterprise survey was 95% (486 completed interviews / 513 attempted interviews).

The response rate was very high because eligible firms were keenly aware of the survey project during the block enumeration phase where they were shown the letters of introduction from the World Bank and other stakeholders; hence they were less likely to refuse the actual survey during the fieldwork phase of the project.

The Nepal Enterprise survey response rate was quite high for establishment-level surveys and the contractor did an excellent job at encouraging respondents to respond to sensitive questions (thereby minimizing item non-response). For example the item response rate for variable *d2*, establishment's total annual sales in the last fiscal year, one of the most sensitive questions, had a 99% item response rate (480/486).

In completed surveys, item non-response was addressed by two strategies:

- a- For sensitive questions that may generate negative reactions from the respondent, such as corruption or business-government relations, enumerators were instructed to collect the refusal to respond (-7) as a different option from don't know (-9).
- b- Establishments with incomplete information on critical productivity variables including total sales, cost figures and employment levels were re-contacted in order to complete this information and minimize item non-response. However, re-contacts did not fully eliminate low response rates for some items.

The contractor achieved a higher number of employee surveys than originally targeted. The contractor successfully interviewed 392 employees in 68 firms. 4-7 employees were interviewed per firm.

This report summarizes statistics on rejection rates, eligibility rates, and item non-response to alert researchers of these issues when using the data and when making inferences. Item non-

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<sup>2</sup> This is equivalent to the weighted average of the estimates for each stratum, with weights equal to the population shares of each stratum.

response, selection bias, and imperfect sampling frames are not unique to Nepal or the Enterprise Surveys. All surveys suffer from these issues.

## I. Country-specific comments

The following information was provided by the contractor.

### 1. Block Enumeration

In the absence of a reliable updated list to generate a sample frame for the study, major cities were selected from various regions of the country which were then divided into clusters and subsequent blocks. These clusters and blocks were then fully enumerated. The enumeration generated above 6,000 samples from which 600 were randomly selected.

The following cities were selected from the different regions within the country:

Regions	City
East:	Bhadrapur, Biratnagar ,Itahari ,
Central:	Kathmandu, Lalitpur , Bhaktapur, Bharatpur ,
West:	Butwal, Pokhara, Nepalgunj, Dhangadi

The following table below shows total number of blocks and clusters chosen for the enumeration process.

Region	City	No. of blocks	No. of Clusters	Staff
East	Bhadrapur	15	3	2
East	Biratnagar	22	5	2
East	Itahari	9	2	2
Central	Banepa	11	2	2
Central	Birgunj	19	4	2
Central	Bhaktapur	17	4	2
Central	Bharatpur	14	3	2
Central	Kathmandu	35	8	6
Central	Lalitpur	22	5	2

West	Butwal	15	3	2
West	Dhangadhi	14	3	2
West	Nepalgunj	17	4	2
West	Pokhara	18	4	2
<b>Total</b>		<b>228</b>	<b>50</b>	<b>30</b>
Additional	Hetauda Industrial Area			2
Additional	Simra Industrial Area			2
<b>Total</b>				<b>34</b>

The entire block enumeration was carried out by 5 separate teams – 1 in Eastern Region, 1 in Western Region, 1 in Central Valley and surrounding areas (Kathmandu, Lalitpur, Bhaktapur and Banepa) , 1 in rest of the Central Region (Bharatpur and Birgunj) and 1 Additional Team for the Industrial Area within Hetauda and Simra. The entire block enumeration was completed in 25 days with a total field staff of 34 people. There were 3 Supervisors to monitor the progress and assist the enumerators with their movement. The block enumeration was completed in 25 days with a total field staff of 34 people.

## 2. Staffing Solution

A total of 19 people were involved for the field work of the Enterprise Survey. All the researchers/ interviewers involved for the study were at least a graduate in business or commerce studies, if not having a master's degree. The team composition was as follows

Technical Consultant	-	1
Survey Co-ordinators	-	1
Core Team Member	-	1
Data Manager	-	1
Supervisors	-	2
Researcher / Interviewers	-	8
Data Entry	-	4
Office Support Staff	-	1
<b>Total</b>	-	<b>19</b>

For each of the Bigger cities there were at least 3 interviewers assigned for the survey. For the smaller cities 1 to 2 interviewers were assigned. The major role of the Technical Consultant was to establish contacts at places where it was difficult to get hold of the resourceful respondents.

Regarding the screener information, it was not necessary to appoint people to administer the screener since the size and sector of each of the sample firm was already collected during block enumeration. However the Support Staff (Appointment Makers) called the selected firms over phone to double check on the block enumeration information regarding the size, sector and type of firm as well as verification of the contact person listed during enumeration. These calls were made to all the selected firms that they could establish contact with through phone. Upon verification of the required screener information, the Support Staff fixed the appointment with the authorized personnel to conduct the interview. Upon successful contacts with the relevant personnel the list was passed on to the interviewers who later on followed up to proceed with the study. These interviewers were then responsible for visiting the selected establishments and

ensuring their participation; to conduct face-to-face interviews with the selected respondents; and to accurately record respondents' answers.

The supervisors for the study were mainly responsible for monitoring the movement of the staff, and provided them with the required inputs. They were also involved in monitoring the data collected and performed the required checks for inconsistencies.

There were altogether four people assigned for the data entry, among which two were enumerators who were given the responsibility of checking and rechecking the entered data. One individual checked the hard copy before it was entered and the other checked the data after being entered into the data entry form.

### 3. Field Work

The relevant information for the sample firms had already been collected during the block enumeration, hence the study team started the study by verifying the information required in the screener. For this purpose the verification was typically conducted over the phone. For the interviews, more than 85% of the firms were called in for appointments. However, the team could not establish prior contact with some of the firms to fix the appointments. The reasons were mainly due to the firms not having any contact number and also due to the fact that the data collected from third parties during enumeration were not correct information about the firms. In such cases, the team had to establish contact with these firms (through visits) and then fix an appointment with the potential respondent. Apart from the above, all the other firms were contacted over phone and the enumeration information was verified for filling in the screener.

#### 3.1. Commencement and Completion of the Fieldwork

The fieldwork for the study started on 8th March 2009 and ended on 15th June 2009. The following table shows the timeline and the number of interviewers/researchers involved in the fieldwork. The table also outlines the number of interviews completed in the respective cities.

Destination	No. Of interviews completed	No of people Involved	Start date	End date
Biratnagar	50	3	29/03/2009	13/04/2009
Itahari	13			
Bhadrapur	21			
Pokhara	49	3	16/04/2009	25/04/2009
Birgunj	36	1	07/04/2009	10/05/2009
Bharatpur	19	2	11/05/2009	16/05/2009
Butwal	28	1	16/04/2009	27/04/2009
Dhangadhi	17	2	16/05/2009	24/05/2009
Nepalgunj	20			
Bara / Hetauda Industrial Corridor	7	2	06/06/2009	10/06/2009
Valley (Kathmandu, Lalitpur, Bhaktapur.	346	6	8/03/2009	15/06/2009
<b>Total</b>	<b>606</b>			

### 3.2. Publicity Materials

Relevant letters of introduction about the survey and its objectives were presented to the respondents to make them aware of the study as well as to earn their trust, to disclose information about their enterprise and in providing the validity of the survey. The supporting letters were provided by The World Bank team, Federation of Nepalese Chambers of Commerce and Industry (FNCCI) and Hotel Association of Nepal (HAN). An introductory letter was also taken from Solutions Consultant, the agency responsible for collecting the data.

### 3.3. Challenges and Difficulties in Fieldwork

The contemporary situation of the country and its impact among the business enterprises reflected in the behavior of the respondents. Poor economic growth, lack of a conducive environment for business activities, lack of fuel and electricity were some of the major problems being faced by the business community and the society at large. During such a point in time, the field staff observed much of anger and frustration amongst the business community. Hence the major challenge during the fieldwork was to collect genuine data without annoying the respondents. In some cases certain questions only fuelled their anger, and a lot of patience was needed in order to get the data amidst the negative mindset of the respondents.

In general, the difficulties and challenges faced during fieldwork were as follows:

- *Universal applicability of the questionnaire -*
  - One of the major challenges faced during fieldwork was the issue of the universal applicability of the survey questions versus the local context due to which some respondents lost interest in the questions. A lot of patience and persuasion was required to constantly draw their attention to the main subject matter. For instance, some of the family owned enterprises registered in the Inland Revenue Department were more suited for the Informal Model of questionnaire. Most of their characteristics resembled informal firms employing their own family members as workers. Especially for micro enterprises, most of the

questions did not apply. This was basically due to the mismatch between the questions and the targeted enterprises.

- Some respondents were also disappointed to find that there was no room to put down their subjective feelings. In such instances some of their comments were captured in the interviewer comments section. This helped in regaining the interest of the respondents on the interview.
- *Time lag between the block enumeration and the actual interview -*
  - The study team observed that some of the firms that were enumerated a couple of months back were now shut down. Especially, the manufacturing enterprises located at the Industrial area of Kathmandu were closed or were in the process of being shut down due to excessive load shedding (power outages) and political problems. It was due to the above that the enumerators had to interview all the medium manufacturing enterprises of Kathmandu and Lalitpur, listed in the sample frame regardless of the priority.
  - The information on the number of workers in an establishment was the basis for categorization of the size of establishments needed for the sample frame. The enumeration exercise captured certain quantitative data with reference to that particular point of time (Nov/Dec 2008 – Jan 2009) whereas the interviews captured the same data with reference to the Fiscal year 2007/2008. Again due to the time differences, in some of the cases, the number of workers mentioned in the enumeration information and the actual interviews did not coincide.
  - Similarly, in some cases, the enumeration information were collected from a third party (neither employers nor employees but someone located closely to the enterprise). These responses were mostly assumptions or best guesses of the third party which again did not coincide with actual interview data of that enterprise. Due to the above

mentioned mismatch in data, some of the smaller firms had to be shifted into larger categories and vice versa.

- In some cases it was later found that the establishments had either been closed in that particular location or completely closed. In such instances the appointment makers faced difficulty in tracking the respondents based on the enumeration data.

- *Confidentiality of information*

- Issues regarding confidentiality of the information collected posed as a threat to some of the enterprises in disclosing their information particularly those related to their sales and income. Despite our assurance on information confidentiality some of these enterprise owners were hesitant to disclose the sales data fearing that the information would be leaked to the tax officials. The practice of the various criminal groups collecting forced donations especially from the medium and large organisations were another reason why the respondents were hesitant to disclose their sales data. Some of the firms mentioned that they have had to donate or contribute money because of intense pressure and threat from people affiliated to various political as well as illegitimate groups. In some cases the respondents were of the opinion that the enumerators were there to ask for donations and refused to cooperate. However the interviewers explained to them regarding our purpose and were successful in collecting the data.
- Due to the current security issues, the study team observed constant fear amongst various respondents in providing them any kind of information.

- *Conflict between Trade Unions and Management*

- Some employers did not allow the enumerators to conduct the employee surveys and wanted to avoid any kind of interaction with their employees. Some mentioned that they did not want to take any chances, and wanted to avoid having to respond to trade union staff as to why these surveys were conducted.
- Disputes were observed between management and labor regarding issues related to wage hikes and increased benefits. During the course of the interview, the enumerators had to face the complaints against each other from both the sides. Due to such situations interview time was wasted.

### **3.4. Interruptions, Delay and Refusal during Fieldwork**

In all the cities, the field work was interrupted at various points in time. Some interruptions were prolonged while some were for a brief moment of time. In some locations the enumerators spent twice the time needed because of road blockages. The fieldwork at the Western Region particularly, could not commence in time mainly due to extremely tensed and chaotic conditions due to protests and clashes between civilians. The enumerators were not able to proceed towards Dhangadi (Western Region) mainly because the administration had imposed curfew to tackle the civil unrests, protests and demonstrations over certain political issues. During the course of the field work, it was common to receive updates from the field staff that they were stuck and stranded at a particular location due to indefinite strikes. Besides the above, fuel shortages also made it difficult for enumerators to travel around for interviews. The above mentioned problems hampered the mobility of the field staff, as a result of which they had to hold off the interviews for those locations, travelled to another city, and came back later for completing their interviews.

The general strikes and protest programs that were held almost everyday within and outside the valley kept the enumerators from reaching the firms on time for which the appointments had been fixed. This was one of the most common problems faced by the enumerators during the entire survey.

Refusal to participate in the survey was an issue faced amongst Kathmandu based retail firms as well as the micro manufacturing firms. One out of every eight retail firms and one out of every 6 micro manufacturing firms refused to give interviews mainly due to their busy schedule and the lengthy nature of the questionnaire. Refusal to participate was not the key problem in other cities and sectors. However in the large manufacturing sector, the study team had to use many priority 2 samples because the firms had closed their operations completely when the enumerators went for the actual survey.

Some of the issues that the respondents brought up to excuse themselves from the survey are as follows –

- Not interested in the subject matter
- Not interested in the fact that they had been chosen as samples for the survey
- Too busy to participate for the interviews
- Length of the questionnaire as a major issue
- Alleged the questions to be very sensitive and private and eventually refused to answer.
- Claimed that they had no authority to disclose any information about the firm and the authorized personnel were out of country. Especially, in most of the large firms, it was difficult to contact the authorised personnel. The staff were reluctant and mentioned that they were instructed not to give any information about the firm or the whereabouts of the owner. Although the staff wanted to help, they were helpless since they were instructed by the higher authority not to do so. Due to these above reasons interviewing large firms became comparatively difficult.

## **4. Questionnaire**

### **4.1. Questionnaire Translations and Pilot Interviews**

Before any pilot interviews could take place, the questionnaires were translated into the local language – Nepali, following which a back-translation was conducted to check the consistencies in the translated version. The comments from the back-translation were then incorporated into the translated version. After the translation, pilot interviews were conducted in 6 formal organisations and 3 informal organisations to check the translations and relevance of the questions in the local context. This initial pilot helped in providing feedback to the World Bank team during the training period regarding the relevancy, applicability and flow of the questions in the context of the local environment. Based on the above feedback, some of the questionnaire content was slightly changed especially for the informal questionnaire. Any further changes during the training sessions were then captured to prepare the final version of the questionnaires.

Following the training session 9 more interviews were conducted to pilot test the final version of the questionnaires. A total of 15 interviews were done as part of the Pilot, which included 5 for manufacturing firms, 5 for retail and 5 for core firms. The other three interviews were done for the informal firms. Apart from this, 3 employee surveys were also conducted as a part of the pilot.

The pilot interviews proved to be very helpful in familiarising everyone to the subject matter in the questionnaire. The pilot surveys which were further carried out after the training sessions also helped the enumerators to become more acquainted with the questions, also helping them understand the implications of the questions as well as the potential mistakes that were to be avoided. These pilot exercises also helped the enumerators with time management. Given the country's political and economic condition and the nature/behaviour of possible target respondents, the pilot survey exercise helped the team understand the hurdles and the difficulty related to the task. This exercise helped the team to better prepare themselves for the interviews which required a great deal of persuasion and patience.

The data obtained from the piloting were recorded in the database which also helped in identifying the errors in the consistency checks programmed into the database.

## 4.2. Issues and Problems with questionnaire

### *Questionnaire Content*

- As far as the clarity of the questionnaire was concerned, some respondents could not understand the concepts of access to finance and access to land. Given the pre-condition that the enumerators were not allowed to describe or clarify the questions since it was opinion based, some misunderstanding did occur in these sections. A few respondents found it difficult to understand some of the options listed in the show cards mainly because they were semi literate or illiterate.
- The respondents suggested the need of adding one more option as an answer to the biggest obstacle for the business environment which was described as "The Limited Demand of Goods and Services". Although this option is listed in the informal questionnaire model, it is not present in the ES questionnaires. Most of the respondents mentioned that this was the biggest obstacle faced by their establishment, but since the option was not available for them, they chose political instability which was thought of as the root cause of all the problems going on in the country.
- The respondents of firms whose annual financial statements were not checked and certified by an external auditor, found it difficult to instantly share with us the net value of assets. Since they did not have figures certified by an external auditor, they calculate it themselves and gave a best estimate figure.
- In some organisations the figures for annual cost of labor was more than annual sales. Such data were mainly due to the fact that the business had currently suffered losses. In fact some companies also mentioned that their sales had substantially decreased within a year's time. However they still had to incur higher labor cost due to the fact that they were not able to lay off the workers due to pressures from the trade unions.
- Few respondents were offended by the sensitive questions and were very uninterested especially in questions related to bribery under various sections.

### ***Questionnaire Length***

- The average duration to conduct the enterprise survey was around 50-55 minutes whereas it was around 30 minutes for the informal questionnaire. The employee survey took around 5 minutes per individual.
- Regarding the length of the questionnaire, the respondents particularly in the case of provisional store (micro-retail store) complained about the length of the questionnaire. The issue in these cases were primarily due to the fact that these respondents were the only worker/owner present at the premise undertaking the daily business on the spot. These respondents had to answer our survey questions and at the same time attend to their customers; hence some even lost their patience to answer all the questions and to see the option cards. Some were very annoyed and irritated. Due to the above reason, there was much delay in collecting all the required information.
- Similarly for micro-enterprises (retail) where the respondent claimed to be the only owners or in some cases the manager of the enterprise, the section containing questions referring to Labor (full time, part time employees, trade unions) were not applicable. In these cases, the questions were not applicable mainly due to the fact that the firms were employing the family members as unpaid workers.
- Furthermore, the questionnaire length was an issue for some respondents (about 20% of the sample frame) who were very busy (especially the ones in the large firms). The length was also an issue for the respondents of provisional stores who were busy throughout and hardly had any time to participate in the interview. The size of the questionnaire document appeared lengthy and the respondents tried to adjourn or delay the interviews citing lack to time. In such cases, the field staffs made the respondents understand that all the questions might not be applicable to them and that skips in the questionnaire would cut down the time. Such respondents were mostly in the cases of the small and micro retail enterprises. This was also the primary

reason for replacing the original samples of retail enterprises by the priority 2 firms.

#### **4.3. Repeat Visits**

- Repeated visits to the firms were necessary in some cases when the authorized person wasn't present (the one with whom the appointment had been fixed). For firms consisting of multiple establishments it was very difficult to track down the authorised personnel who kept referring to the other establishments of the same firm for conducting interviews. It appeared that the respondents were avoiding the situation of having to take the responsibility of the disclosed data and information. Because of this they constantly tried to procrastinate or avoid the interviews due to which the enumerators had to keep going back and forth from it's headquarter to branches and vice versa without any success of getting the interviews.
- As far as the total number of firms revisited and called back were concerned, they made up for around 20% of the sample frame.

#### **5. Database Quality**

Data entry forms were developed using EPI DATA 3.0 and edited and cleaned in the same program. Acceptable values and checks were predefined in the software where possible. However, in some cases (mainly where values were to be entered either in percentage or LCUs) some errors did occur for these values since the data entry system could apply neither skip patterns nor valid range of values. The cleaned data set were then exported to SPSS generating a SPSS format file system which were then submitted to the World Bank team for further Quality Control checks.

## Appendix A

### Original Sample Design- Enterprise Survey

Region	Size	Manuf	Retail	Other	Other-Tourism	Total
East	Micro	11	6	8	4	29
	Small	0	11	3	1	15
	Medium	6	1	5	0	12
	Large	4	0	0	0	4
		21	18	16	5	60
Central	Micro	41	16	2	6	65
	Small	9	75	2	28	114
	Medium	56	14	45	16	131
	Large	9	1	1	3	14
		115	106	50	53	324
West	Micro	8	8	5	5	26
	Small	3	18	0	9	30
	Medium	28	0	4	3	35
	Large	5	0	0	0	5
		44	26	9	17	96
Grand Total		180	150	75	75	480

### Original Sample Design- Informal Survey

Region	Size	Manuf	Retail	Other	Other-Tourism	Total
East	Micro	8	4	1	5	18
	Small	2	0	3	1	6
	Medium	0	0	0	0	0
	Large	0	0	0	0	0
		10	4	4	6	24
Central	Micro	11	13	5	13	42
	Small	16	5	15	2	38
	Medium	0	0	0	0	0
	Large	0	0	0	0	0
		27	18	20	15	80
West	Micro	1	2	0	1	4
	Small	3	2	5	1	11
	Medium	1	0	0	0	1
	Large	0	0	0	0	0
		5	4	5	2	16
Grand Total		42	26	29	23	120

## Appendix B

### Nepal Universe Estimates: Based on Block Enumeration Counts

Region	Size	Manuf	Retail	Other	Other-Tourism	Total
East	Micro	273	4058	1009	323	5661
	Small	218	309	362	143	1031
	Medium	88	5	58	0	151
	Large	33	0	0	0	33
		612	4371	1429	466	6877
Central	Micro	1759	13083	2461	783	18085
	Small	1372	2006	1964	868	6211
	Medium	263	138	487	198	1086
	Large	99	12	1	41	153
		3492	15239	4913	1891	25535
West	Micro	352	4225	1089	184	5850
	Small	606	341	618	591	2156
	Medium	74	0	67	50	192
	Large	21	0	0	0	21
		1053	4566	1774	826	8219
Grand Total		5157	24176	8115	3182	40631

**Nepal Adjusted Universe Estimates:** Universe Estimates have been adjusted per region x sector since firm size sometimes differed between block enumeration and actual survey response.

Region	Size	Manuf	Retail	Other	Other-Tourism	Total
East	Micro	273	4179	708	323	5481
	Small	218	189	677	143	1227
	Medium	88	3	44	0	135
	Large	33	0	0	0	33
		612	4371	1429	466	6877
Central	Micro	744	12952	2067	960	16723
	Small	2590	2139	2475	674	7877
	Medium	114	123	369	194	801
	Large	44	26	2	63	134
		3492	15239	4913	1891	25535
West	Micro	124	4408	1089	284	5905
	Small	897	158	618	458	2131
	Medium	23	0	67	84	174
	Large	8	0	0	0	8
		1053	4566	1774	826	8219
Grand Total		5157	24176	8115	3182	40631

## Appendix C

### Nepal Median Cell Weights Using Adjusted Universe Estimates

Region	Size	Manuf	Retail	Other	Other-Tourism
East	Micro	24.78	596.94	78.64	322.50
	Small	0.00	18.91	96.74	0.00
	Medium	14.71	0.00	10.90	0.00
	Large	8.32	1.00	0.00	0.00
Central	Micro	24.00	761.89	295.28	320.13
	Small	71.94	29.30	190.36	29.29
	Medium	2.86	11.18	15.39	6.70
	Large	3.67	12.81	1.68	10.43
West	Micro	17.78	339.05	108.88	142.22
	Small	89.72	13.18	309.03	76.25
	Medium	1.00	0.00	0.00	11.94
	Large	1.68	0.00	0.00	0.00

# **Nepal Enterprise Survey**

## **Summary Report Block Enumeration**

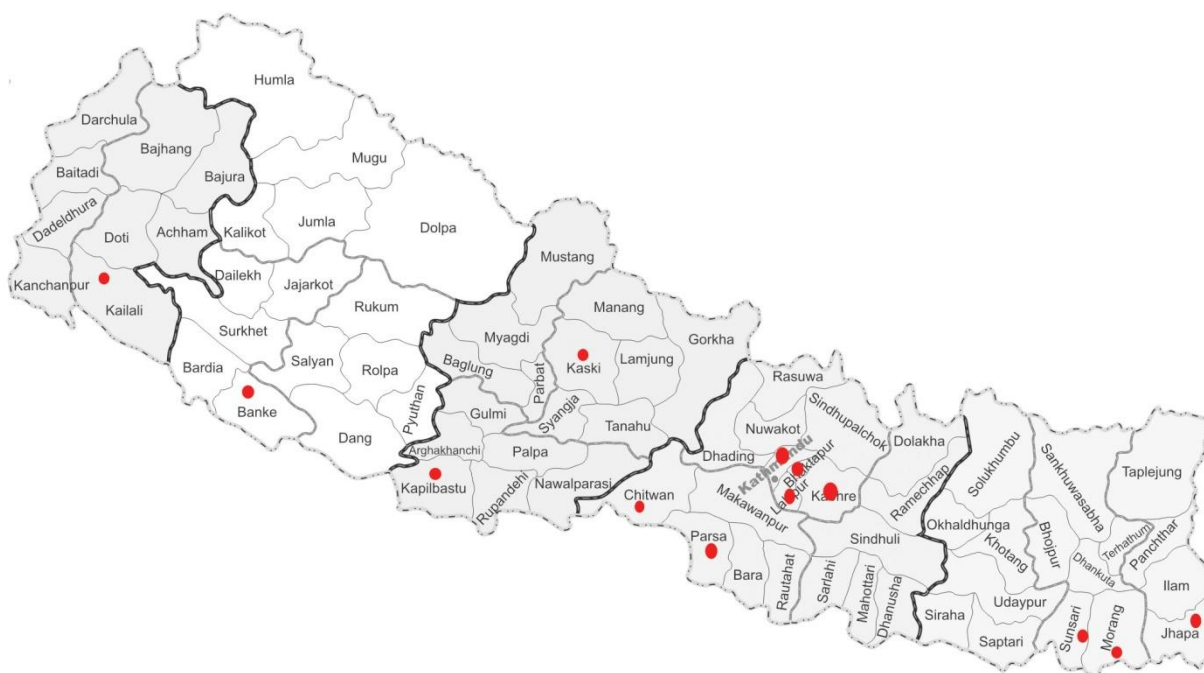
# 1. Initial Planning and Selection of Urban Hubs

- Major urban hubs were divided into 3 regions: East, Central and West. As per the budget and time limitations, 13 hubs were chosen for the block enumeration process
- Number of hubs in each region were fixed at; 3 in the East; 6 in the Central and 4 in the West; an approximate number based on distribution of enterprises as per the records available. Data on number of registered enterprises with Department of Small and Cottage Industries and Department of Industry were merged to get a figure for each districts in the regions.
- Top 20 districts were selected and their major urban areas listed. Among those 13 hubs were chosen as per their size (larger being selected) and lesser agro-based economy; as per the quota agreed upon.

>>> List of districts selected: Kathmandu, Lalitpur, Parsa, Rupandehi, Morang, Kaski, Chitwan, Jhapa, Sunsari, Banke, Bara, Dhanusha, Bhaktapur, Makwanpur, Kapilvastu, Saptari, Siraha, Kailali, Kavre, and Nawalparasi

>>> Selected cities/ urban hubs;

- East: Bhadrapur, Biratnagar, Itahari
- Central: Kathmandu, Lalitpur, Bhaktapur, Bharatp, Birgunj, Banepa
- West: Butwal, Pokhara, Nepalgunj, Dhangadi



- For each city or the urban hub, using an aerial map available, they were divided into “clusters”. These clusters were formed taking into consideration the current administrative boundaries and sizes of the urban hub in context.

## No. of clusters for each hubs

Region	Urban Area	No. of Cluster
East	BHADRAPUR	15
East	BIRATNAGAR	22
East	ITAHARI	9
Central	BANEPA	11
Central	BIRGUNJ	19
Central	BHAKTAPUR	17
Central	BHARATPUR	14
Central	KATHMANDU	35
Central	LALITPUR	22
West	BUTWAL	15
West	DHANGADHI	14
West	NEPALGUNJ	17
West	POKHARA	18
<b>Total</b>		<b>228</b>

Among these clusters 50 were randomly selected for the purpose of block enumeration. The work of dividing the selected clusters into smaller “blocks” was also carried out. For each city cluster, using an aerial map, it was divided into “blocks” of roughly the same size and ideally defined by practical boundaries such as roads and natural geographic phenomena (e.g. a river, etc.).

### Issues during division of blocks

A revisit to selected clusters showed that nature of enterprises and size of enterprises dictated that clusters should not be divided further into blocks, except for in clusters in Kathmandu. Dividing further into blocks would create a very small area, in terms of presence of enterprises required as per the agreed definition of formal enterprises.<sup>3</sup>

### List of Selected Clusters

S.No.	Region	Strata	City	Cluster Code	Number of Blocks
1	Central	F	BANEPA	CBNP09	Full cluster enumerated
2	Central	F	BANEPA	CBNP03	“
3	Central	F	BHAKTAPUR	CBKT10	“
4	Central	F	BHAKTAPUR	CBKT04	“
5	Central	F	BHAKTAPUR	CBKT12	“
6	Central	F	BHAKTAPUR	CBKT16	“
7	Central	F	BHARATPUR	CBHT11	“
8	Central	F	BHARATPUR	CBHT07	“
9	Central	F	BHARATPUR	CBHT14	“
10	Central	F	BIRGUNJ	CBRG13	“
11	Central	F	BIRGUNJ	CBRG09	“
12	Central	F	BIRGUNJ	CBRG06	“
13	Central	F	BIRGUNJ	CBRG19	“

<sup>3</sup> Enterprises required for the Nepal Enterprise Survey, were defined as having employees more than 4 and registered with Internal Revenue Department i.e., having PAN (Permanent Account Number).

14	Central	F	KATHMANDU	CKTM29	11 (2 selected)
15	Central	F	KATHMANDU	CKTM24	5 (2 selected)
16	Central	F	KATHMANDU	CKTM06	14 (10 selected)
17	Central	F	KATHMANDU	CKTM32	10 (3 selected)
18	Central	F	KATHMANDU	CKTM04	15 (3 selected)
19	Central	F	KATHMANDU	CKTM31	7 (1 selected)
20	Central	F	KATHMANDU	CKTM01	8 (2 selected)
21	Central	F	KATHMANDU	CKTM13	11 (1 selected)
22	Central	F	LALITPUR	CLTP16	Full cluster enumerated
23	Central	F	LALITPUR	CLTP20	“
24	Central	F	LALITPUR	CLTP10	“
25	Central	F	LALITPUR	CLTP13	“
26	Central	F	LALITPUR	CLTP21	“
27	East	F	BHADRAPUR	EBHA13	“
28	East	F	BHADRAPUR	EBHA09	“
29	East	F	BHADRAPUR	EBHA14	“
30	East	F	BIRATNAGAR	EBRT04	“
31	East	F	BIRATNAGAR	EBRT05	“
32	East	F	BIRATNAGAR	EBRT08	“
33	East	F	BIRATNAGAR	EBRT01	“
34	East	F	BIRATNAGAR	EBRT09	“
35	East	F	ITAHARI	EITA01	“
36	East	F	ITAHARI	EITA04	“
37	West	F	BUTWAL	WBUT03	“
38	West	F	BUTWAL	WBUT07	“
39	West	F	BUTWAL	WBUT01	“
40	West	F	DHANGADHI	WDHA14	“
41	West	F	DHANGADHI	WDHA13	“
42	West	F	DHANGADHI	WDHA10	“
43	West	F	NEPALGUNJ	WNPJ10	“
44	West	F	NEPALGUNJ	WNPJ03	“
45	West	F	NEPALGUNJ	WNPJ13	“
46	West	F	NEPALGUNJ	WNPJ14	“
47	West	F	POKHARA	WPKH18	“
48	West	F	POKHARA	WPKH11	“
49	West	F	POKHARA	WPKH17	“
50	West	F	POKHARA	WPKH06	“

## 2. Process of Block Enumeration

### Number of clusters/blocks

A total of 42 randomly selected clusters and 24 blocks (randomly selected out of 8 selected clusters) were prepared for block enumeration.

### Number of Enumerators and Logistics

A total of 26 enumerators (13 teams of two enumerators each) were used during block enumeration spanning across just over 4 weeks. Each of the teams were dispatched to their respective 13 urban hubs, all later culminating to help with enumeration of larger clusters/blocks in Kathmandu and Lalitpur after finishing their respective hubs. The smaller hubs took around 1-2 weeks to complete, with the larger hubs taking around 4 weeks.

### Enterprise Enumeration

The enumeration of enterprise were carried out taking into consideration categories mentioned in the ToR based on ISIC 3.1. Only these qualifying enterprises were enumerated.

Stratum	Industries
Manufacturing	Group D
Retail	Industry 52
Other services	Groups F, G (excluding 52), H, I, 72 (which is part of Group K)

A total of 7,300+ enterprises were enumerated during the block enumeration process from the 13 urban hubs and selected clusters/ blocks.

### Data Entry, Verification and Filtration

The data entry process consisted of a team of 6 people, supported by 2 personnel assigned to randomly verify enterprise information during the data entry process. The block enumeration data was entered into data-entry form developed using EpiData 3.1, which was later transferred into SPSS. The data were entered as block enumeration progressed along with simultaneous verification and cross checking.

The verification and filtration process removed around 600 enterprises based on their non-eligibility the ISIC 3.1.; categorisation to end up with a total of 6,652 enterprises in the final database. Once all the data was entered, 10-digit unique numeric IDs for each of the enterprise enumerated was developed based on;

- the region (first one digit)
- urban hub (next two digits)
- cluster number (next two digits)
- block number (next two digits) and,
- response number of enterprise in a particular cluster/block (last 3 digits)

### Changes in the Block Enumeration

- Carried out full cluster enumeration for 42 clusters, instead of blocks for all initial clusters chosen, except in 8 clusters of Kathmandu.
  - This was done to ensure that appropriate number of enterprises be listed during block enumeration and also to accommodate as many enterprises in the list.

- The block enumeration decided to add 5 “Industrial Estates” within the urban hubs.
  - If such additional work had not been done then it would have left out many manufacturing enterprises (small and large) as these are not located within the urban boundaries, but exist in periphery areas. Industrial Estates are usually located little outside of urban boundaries and are important organised estates hosting manufacturing enterprises. These actually acted as replacement clusters/ blocks for some selected clusters/blocks.
- Replacement of clusters,
  - Western Region
    - In the urban hub of Dhangadi, the randomly selected clusters had a very thin concentration on enterprises, as well as the economic activities had shifted to nearby clusters in recent days. As per the instructions and consent of the client 3 clusters were randomly switched in Dhangadi. WDHA3, WDHA4 and WDHA8 replaced by WDHA14, WDHA13 and WDHA10
  - Central Region
    - Replaced CKTM24-2 and CKTM24-3 in Kathmandu, blocks which primarily contained only micro retail enterprises, which did not serve the core enterprise study. The replacement clusters were CKTMIND, an industrial block in Kathmandu to boost the list of medium and large manufacturing enterprises and CKTMRET, a block which had larger retail enterprises to ensure their representation in the enumeration list. Most of the retail enterprises during the block enumeration either were in micro-enterprise category (less than 5 employees) or in small category
    - Replace CLTP13 in Lalitpur with CLTPIND, the replaced cluster contained scattered buildings and less enterprises of relevance for the Nepal Enterprise Survey. The replacement cluster CLTPIND is a manufacturing block within an organised Industrial Estate in Lalitpur.
- Additional Clusters
  - Western Region
    - Additional one manufacturing block, within an Industrial Estate, enumerated in each of the urban hubs of Butwal, Nepalgunj and Pokhara. As mentioned earlier manufacturing enterprises are usually located away from urban hubs or within an industrial block in the periphery of the cities. These were enumerated to have representation of the manufacturing enterprises in these hubs.

## Issues during Block Enumeration

- The timing of the block enumeration clashed with government's initiative to enlist tax-evaders and Voluntary Disclosure of Income Scheme (VDIS) efforts. Entrepreneurs not willing to be identified suspecting that the block enumeration was a part of the government's effort to identify tax evaders. Since a question specifically asked whether the enterprise was registered with the Internal Revenue Department or not; this complicated the matter more. This issue was greatly solved through showing relevant letters of introduction and also using enumerators from the local area.
- It was seen that there was a general sense of hesitancy, especially among retail/restaurants to declare number of employees. Many are sceptical of identifying their true numbers, for fear of labour unions forming their units in their business. They usually "would like to identify themselves as small". Combination of enumerators' observation and numbers provided by the enterprises were used to get to the number of employees.
- Retail business, mostly comprises of provisions stores and clothing store and are often managed by owners themselves, along with their family. Thus, many more people are involved in the business than actual "employees"
- In Retail business size of the employees seems to be a very bad indicator for size of the business volume or size of the business.
- Localised Strikes and Transportation disruptions delayed the implementation of enumeration. Due to current political situation, often unanticipated localised strikes disrupt travelling and carrying out enumeration, especially in the areas outside of the Kathmandu Valley. This has to be taken into consideration while planning for enumeration and also for the interviews.
- Getting in touch with relevant person to answer about the business usually prolongs the process more than planned. Due current situation in the country, without approval of the "owner" themselves, employees do not respond to anything.

### 3. Results of Block Enumeration

The following table elaborates on the enumerated cluster/ block, changes made and number of enterprise enumerated in each of the clusters/ blocks. A total of 6,652 relevant (as per the specified categories from ISIC 3.1) enterprises were entered into the data base after verification and cross checks.

Cluster/ Block ID	Remarks	No. of Enterprises Enumerated
CBHT11	Original Block	230
CBHT14	"	56
CBHT7	"	208
CBKT10	"	76
CBKT12	"	59
CBKT16	"	67
CBKT4	"	179
CBNP3	"	40
CBNP9	"	51
CBRG13	"	212
CBRG19	"	110
CBRG6	"	41
CBRG9	"	41
CKTM1-1	"	96
CKTM1-5	"	112
CKTM13-7	"	72
CKTM29-1	"	73
CKTM29-10	"	168
CKTM29-3	"	112
CKTM31-6	"	252
CKTM32-10	"	35
CKTM32-3	"	27
CKTM32-4	"	23
CKTM32-5	"	45
CKTM4-12	"	74
CKTM4-2	"	63
CKTM4-3	"	82
CKTM4-6	"	83
CKTM6-1	"	113
CKTM6-10	"	41
CKTM6-11	"	34
CKTM6-2	"	51
CKTM6-3	"	60
CKTM6-5	"	141
CKTM6-6	"	76
CKTM6-8	"	72
CKTM6-9	"	30
CKTMIND	replaced CKTM24-2	81
CKTMRET	replaced CKTM24-3	51
CLTP10	Original Block	149
CLTP16	"	176
CLTP20	"	148
CLTP21	"	111

CLTPIND	replaced CLTP13	80
<b>Cluster/ Block ID</b>	<b>Remarks</b>	<b>No. of Enterprises Enumerated</b>
EBHA13	Original Block	58
EBHA14	"	40
EBHA9	"	99
EBRT1	"	98
EBRT4	"	189
EBRT5	"	121
EBRT8	"	226
EBRT9	"	191
EITA1	"	258
WBUT1	"	13
WBUT3	"	41
WBUT7	"	250
WBUTIND	Additional cluster	26
WDHA3	replaced WDHA10	77
WDHA4	replaced WDHA13	61
WDHA8	replaced WDHA14	79
WNPJ10	Original Block	50
WNPJ13	"	48
WNPJ14	"	63
WNPJ3	"	90
WNPJIND	Additional cluster	18
WPKH11	Original Block	119
WPKH17	"	136
WPKH18	"	24
WPKH6	"	125
WPKHIND	Additional cluster	51
<b>Total</b>		<b>6652</b>

## Summary Classification of the Block Enumeration

			micro	small	medium	large	Total
FORMAL (Registered in PAN/ VAT)	Manufacturing	Eastern	36	25	11	4	76
		Central	140	186	70	9	405
		Western	38	112	35	5	190
		Total	214	323	116	18	671
	Retail	Eastern	468	35	1	-	504
		Central	1,054	167	14	1	1,236
		Western	451	40	-	-	491
		Total	1,973	242	15	1	2,231
	Others	Eastern	115	39	5	-	159
		Central	210	172	45	1	428
		Western	128	62	4	-	194
		Total	453	273	54	1	781
	Others-Tourism	Eastern	44	27	-	-	71
		Central	65	81	16	3	165
		Western	19	47	3	-	69
		Total	128	155	19	3	305
	TOTAL			2,768	993	204	23
INFORMAL (Not Registered with PAN/ VAT)	Manufacturing	Eastern	114	2	-	-	116
		Central	244	16	-	-	260
		Western	45	3	1	-	49
		Total	403	21	1	-	425
	Retail	Eastern	221	-	-	-	221
		Central	1,155	5	-	-	1,160
		Western	184	2	-	-	186
		Total	1,560	7	-	-	1,567
	Others	Eastern	80	3	-	-	83
		Central	321	15	-	-	336
		Western	60	5	-	-	65
		Total	461	23	-	-	484
	Others-Tourism	Eastern	49	1	-	-	50
		Central	109	2	-	-	111
		Western	26	1	-	-	27
		Total	184	4	-	-	188
	TOTAL			2,608	55	1	-
TOTAL			5,376	1,048	205	23	6,652